

PROCEEDINGS

7th GLOBAL ACADEMIC MEETING, GAM 2017,
23-24 March, Budapest, Hungary

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Joining EU: Reflections on Croatian Food Foreign Trade Relations

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Abstract

The aim of the paper was to analyze the impact of joining EU to the agricultural foreign trade relations and trade shifting from traditional destinations to the EU. The most important part in total Croatian agricultural value has crop production, mostly cereals production, while livestock products contribute with 40% in the total value of agricultural production. Wheat and maize area sawn stagnate with mild descending in the 2000-2015 period, while annual production oscillates a lot. The situation in livestock production is characterized by lower production capacities of agricultural family farms. A number of livestock stagnate (cattle) or decreasing (pigs) in period 2000-2015. Croatian agricultural foreign trade negative balance is increasing, although the export-import ratio improves in the period 2011-2013, probably as an effect of EU pre-accession trade benefits. Negative indicators in agricultural production are in direct connect to enormous import and negative foreign trade balance, while coverage of import by export is 57%. Joining EU shifted the trade from CEFTA countries (mostly Bosnia and Herzegovina and Serbia) to EU because Croatian products have not got privileged free access. Croatian agricultural policy should urgently be addressed to the weak points if we want to sustain the sector and better position on the European scene. The CAP mechanisms correspond to the needs and offer solutions for solving the problems of Croatian agriculture and rural areas by implementing measures of rural development.

Keywords: Joining EU, CEFTA, trade relations, food, Croatia

Introduction

Since its independence, Croatia committed for the model of an open market economy and joined the European integration process. Croatia is characterized by a small domestic market, entering into the European Union

will lose a part of traditional markets, and Croatian economic development is oriented in export in which agriculture through primary and secondary products plays an important role (Lončarić and Zmaić, 2004).

Croatia has natural conditions and other necessary resources for the development of agriculture with about 0.65 ha of agricultural land ie. 0.45 ha of arable land per capita and belong to the group of countries that are relatively rich in agricultural land. According to data from the Statistical Yearbook, Croatian Bureau of Statistic for the period 2000 - 2015, the total sown arable land amounted to an average of 931,804 ha of which 607,351 ha was sown under cereals. More than 70% of farms is fragmented in less than 3 ha and poor technologically equipped (Franić and Žimbrek 2003). According to Božić et al. (2005), the Agricultural Census, which was conducted in 2003, 449.000 agricultural households was listed and they have 80% of agricultural resources. Farms with less than 3 ha with the production potential have an important role in orchards and vineyards, and in livestock production. They breed poultry, sheep, goats and beekeeping. Farms larger than 8 ha are usually raising crops, tobacco, livestock farming and handle 40-50% of the areas under industrial crops and vegetables. Agricultural companies have an average of 168 ha of land and they are the main producers of oilseeds and sugar beet.

Croatia's share of agriculture in GDP is about 5.1% in 2011 (Eurostat 2012). For comparison, the share of agriculture in GDP of the EU-27 amounts to 1.7%. In Croatia, as much as 13.8% of the working population is employed in the agricultural sector while in EU-27 only 4.7% in 2010 (Eurostat 2011). According to the research on the agricultural farms structure, spent 2010 by Croatian Bureau of Statistics (2010), agricultural production in the Republic of Croatia was taking place at 233.280 agricultural farms which cultivated 1.316.000 hectares of agricultural land. The average farm size is about 5,6 ha, while in EU the average farm size is 14,5 ha. According to the land use, fields and gardens participate the most (67,1%), permanent grassland - meadows and pasture (26,9%), orchards (2,2%), vineyards and olive groves (1,4%) of utilized agricultural land.

Looking at the above-mentioned data as reported by Jurišić (2013) in which she states that Croatia is on the 24th place with regard to utilized agricultural land. In the European Union twelve countries have a smaller size of the farms than the average (14.1 ha). The situation is similar with farms that keep livestock. Croatia with an average size of 4.4 livestock unit occupies the 23rd place.

Marković et al. (2013) conducted a survey in the area of Split - Dalmatia County and they have come to the data on age, sex structure and educational level of respondents of the survey. Data obtained from the survey analysis can be applied to the rest of country. The largest number of

respondents were in the age structure from 51 to 60 years, at least 9% of respondents of the survey were younger than 30 years. Regarding the gender structure of farmers 82% of them were men and that indicates that in Croatia still prevails the traditional patriarchal worldview. Respondents of the survey were grouped by the educational structure into three categories, of which 63% are medium-educated, 21% have a university degree and 16% have a basic education. According to Horvat (2014), the average age of Croatian farmer is 59,8.

From the EU perspective, Croatian agriculture is a minor factor of the total European agriculture. We can notice modest results in terms of structural and production indicators as well as in terms of economic indicators. The level of Croatian share in the EU: the total value of agricultural production, gross value added, farms, labour, use of agricultural land, livestock, import and export does not exceed 2% (Jurišić, 2013). Croatian potential for agriculture is quite unused, characterized by small-scale and fragmented nature of private farming, a long-term decline in the volume of agricultural production, rather low yields that still lag behind the EU average and rather high agricultural producer prices, mostly above the EU average, indicating weak price competitiveness (Volk et al., 2012). However, agriculture and food production are of exceptional importance for Croatia and constant work on production competitiveness are necessary for successful integration of Croatian agricultural sector in EU market (Gelo and Gelo, 2008).

In the sowing structure of Croatia total sown area under cereals was 607.351 ha in the period 2000 - 2015, wheat contributed with 30% and maize with 53%. As for livestock production in the same period the average number was 450.000 head of cattle and 1.254.000 pigs (Statistical Yearbook, Croatian Bureau of Statistic). Livestock production is highly deficient and for its functioning it is the necessity of quality reproductive material, quality food, use of pastures and quality accommodation for livestock as well as modern technologies of breeding. For the number of livestock conditional are these factors: placement opportunities, the total production of animal feed, the prices ratio of livestock products and food, the length of the cycle of reproduction, infrastructure in livestock production and the needs of processing capacities (Lončarić and Zmaić, 2004). Grgić et al. (2016) reported that the total value of agricultural production of Croatian livestock products contributes 40%. Pig breeding in that proportion is represented with 35%, 33% cattle breeding, poultry breeding 27%, and much less goat and horse breeding. Authors reported that Croatian livestock production is characterized by a decrease of production units, and that the number of livestock head increased in the period from 2000 - 2015, and that this trend

will continue in the coming years. Production of livestock products remains insufficient and import is playing a big role in satisfying domestic needs.

Franić et al. (2014) state that the export of agri - food products from Europe into Croatia makes 0.8% of the total European agri – food exports, in contrast to the Europe imports of agri - food products from Croatia, which is 0.2% of the total European imports of agri - food products. According to the FAOSTAT data for the period 2000 - 2013, from EU Croatia imported wheat worth \$ 2.135.000 and \$ 11.311.000 of maize. Opposite of that, Croatia exported to the European Union wheat worth \$ 15.439.000 and \$ 15.535.000 of maize. Croatian imports from EU countries is twice higher than exports. In the same period Croatia on average imported from EU cattle worth of \$ 71.008.000 and \$ 27.190 pigs, but nothing was exported to the Europe.

Looking at the structure, Croatian export of agri - food products constitute 42% of total Croatian export, and if we look to the Croatian import from the European Union of agri – food products, it constitutes of 67% (Jurisić, 2013). In the period from 2000 - 2010 the balance of foreign trade and trade of agri - food products of Croatia is negative during the analyzed period. Import ratio of agri - food products is higher than the export ratio in total foreign trade. Almost half of Croatian exports is placed in the former Yugoslav countries, and almost 40% in the European Union (Grgić et al., 2011). In terms of the single market with tie production conditions, Croatian agriculture and food industry equally compete in the EU market and third countries, which may affect the reduction in the trade balance deficit and increase value exchange between Croatian and EU (Lončarić and Zmaić, 2004).

According to FAOSTAT data export of wheat and maize in the CEFTA countries is seven times higher than imports, therefore, Croatia in CEFTA countries (Albania, Bosnia and Herzegovina, Serbia and Montenegro) in the period from 2000 - 2013 exported wheat worth of \$ 18.338.000 and \$ 4.910.000 of maize. However, Croatia imported wheat worth of \$ 437.000 and \$ 2.736.000 of maize. Croatia did not import livestock products from CEFTA countries, but in the same period, Croatia exported cattle worth of \$ 5.349.0000 and pigs worth of \$ 4.182.000. Therefore, Bosnia and Herzegovina is the largest importer of Croatian products, 70% of all export intended for the member countries of CEFTA in the period from 2000 - 2012 is intended for Bosnia and Herzegovina. The second largest markets are Serbia, Montenegro and Kosovo, which account for 20% of Croatian exports, while exports to the markets of Albania and Moldova is insignificant. The market of Bosnia and Herzegovina is especially important for Croatian export of meat, meat products, milk, dairy products, and for bakery and mill products (Čudina and Sušić, 2013).

Čudina and Sušić (2013) reported that the Croatian market on its accession to the European Union would face with the import of cheaper agri - food products, and the loss of preferential markets that may compensate by higher exports to member countries and third markets.

The aim of the paper was to analyze the impact of joining EU to the agricultural foreign trade relations and trade shifting from traditional destinations to the EU.

Material and Methods

Source of studying this problem was available literature and data (Croatian Central Bureau of Statistics, FAO database, Eurostat etc.) related to agricultural market in Croatia, EU and some transition countries, foreign trade, integration process and the other data related to influence of integration process, its consequences and obligations to the Croatian agricultural market.

Methods used in the paper was structural and chronological analysis, mathematical-statistical methods (correlations, standard deviations, trends) and synthesis method.

Results

Trends in agricultural production in Croatia

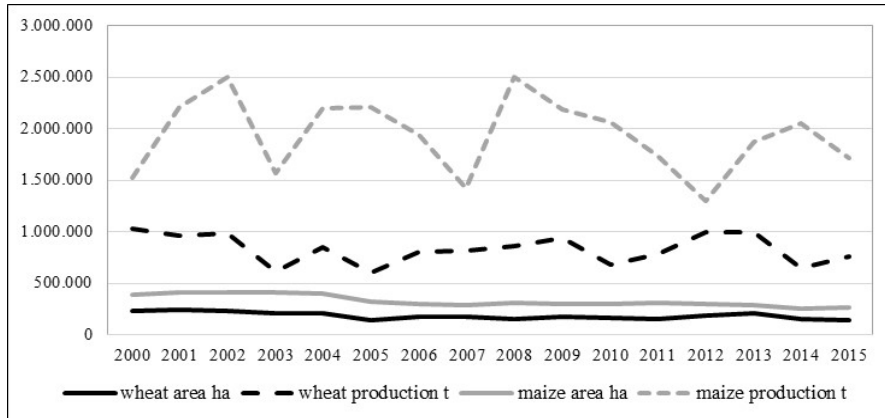
In Croatian crop production, the importance of cereals in agricultural production is indisputable, participating with 64% in arable land sown. Traditionally, our most important cereals are maize (51% of all cereals sown) and wheat (30%). In stock production the most important are cattle and pig production. Comparing yield of wheat and maize, Croatia lags behind EU average (4,5 and 6,04 t/ha in Croatia and 5,5 and 7,15 in EU, respectively). It is the result of poor organization in agricultural production (old machinery, little average farm size, poor infrastructure etc.) - Table 1.

Table 1 . Wheat, maize, cattle, pig production in Croatia (2000-2013)

	wheat area (ha)	wheat yield (t/ha)	wheat prod. (t)	maize area (ha)	maize yield (t/ha)	maize prod. (t)	cattle (000 heads)	pigs (000 heads)
min	140.986	2,96	601.748	252.567	3,90	1.297.590	417	1104
max	240.000	5,50	1.032.085	407.000	8,10	2.504.940	483	1489
average	185.681	4,53	832.967	326.792	6,04	1.936.967	450	1254
SD	33.204	0,69	145.577	54.645	1,33	367.059	17	115

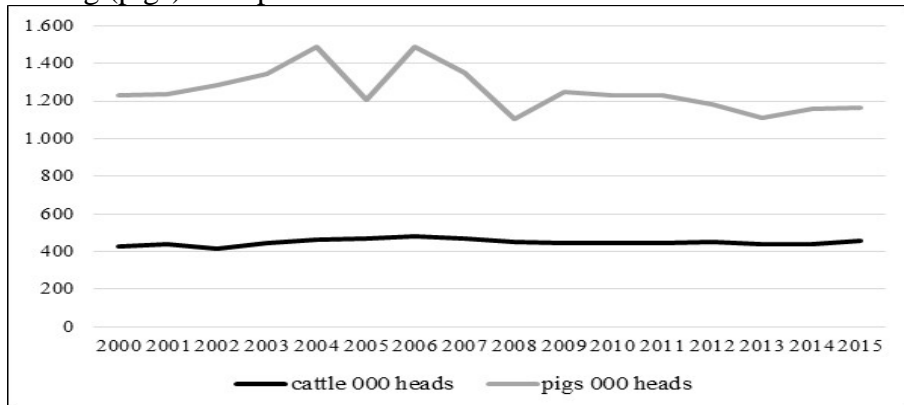
Source: Faostat and Croatian Bureau of Statistics

Wheat and maize sown area stagnate with mild descending in 2000-2015 period, while production oscillate a lot, especially for maize (Graph 1).



Graph 1. Croatian agricultural production of wheat and maize

In period 2000-2015, number of livestock stagnate (cattle) or decreasing (pigs) - Graph 2.



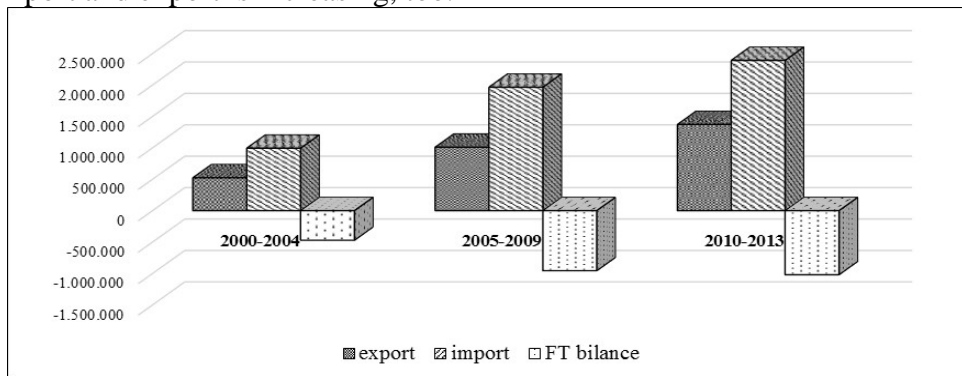
Graph 2: Number of cattle heads and pigs in Croatia, 2000-2015

The situation in livestock production is characterized by lower production capacities of agricultural family farms (prevalent in this agricultural branch in Croatia) with a non-competitive productivity per head. This situation affects a relatively small proportion of livestock (40%) in the total value of Croatian agricultural production, compared to developed European countries with twenty percentage higher points. Within the livestock production total production of pigs are represented with 35%, cattle 32.5%, followed by poultry with 26.7%, significantly less sheep farming with 2.5%, and much less horse breeding. Although very important agricultural production, cattle production is burdened by many problems: non-competitiveness in the open market conditions, significant milk import, producers' indebtedness, producer's lack of information regarding conditions, production methods and agricultural subsidies after joining EU, high cost of capital and inputs (especially fodder), processing industry

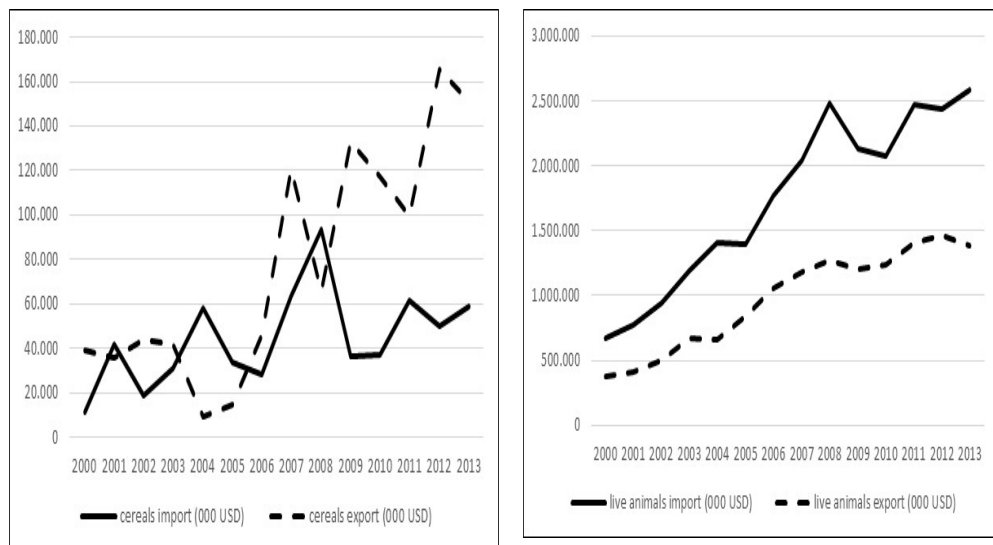
problems, price relations in the purchase of raw materials etc. A number of pigs in Croatia is not adequate, as a reflection of the market instability, the variability of supply and demand without contracting in production, uncontrolled import of pork, which resulted in stagnation or complete cessation of production on smaller farms.

Trends in Croatian agricultural foreign trade 2000-2015

Croatian agricultural foreign trade negative balance is increasing, although the export-import ratio improves in the last period (2011-2013), probably as an effect of EU pre-accession benefits (graph 3). Export/import ratio in the last observed period is improved comparing to previous two periods (57 compared to 51 and 52%, respectively). Cereals and livestock import and export is increasing, too.



Graph 3. Croatia foreign trade of agricultural products
Source: FAOSTAT



Graph 4. Import/export trends for cereals and live animals
Source: FAOSTAT

In Table 2 are presented correlation interactions between foreign trade and agricultural production parameters. Some correlations are logic and expected, like import and export with import and exports of fruits & vegetables, cereals and live animals as well as import and exports of fruits & vegetables, cereals and live animals mutually.

But, some correlations indicate that structure of imported and exported products is not favorable for Croatian export/import balance, for example negative correlations between import and export of live animals with cereal sawn area.

Table 2. Correlations between some foreign trade and agricultural production components for period 2000-2013

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-															
2	**	1														
3	0,95	**	1													
4	**	**	**	1												
5	0,99	0,95	**	**	1											
6	**	**	**	*	**	1										
7	0,94	0,92	0,91	**	0,63	ns	1									
8	**	**	**	*	**	**	**	1								
9	0,70	0,59	0,74	0,63	1											
10	**	**	**	**	**	ns	1									
11	0,77	0,85	0,73	0,79	ns	1										
12	**	**	**	**	**	**	**	1								
13	1	0,95	0,99	0,94	0,70	0,77	1									
14	**	**	**	**	**	**	**	**	1							
15	0,98	0,95	0,96	0,95	0,60	0,80	0,98	1								
16	**	*	**	**	ns	ns	**	**	**	1						
1	-0,70	-0,54	0,69	-0,68	ns	ns	-0,70	-0,73	1							
2	**	**	**	**	ns	*	**	**	**	ns	1					
3	0,71	0,68	0,65	0,71	ns	0,59	0,71	0,68	ns	1						
4	ns	ns	ns	ns	ns	ns	ns	ns	*	ns	1					
5	**	**	**	**	ns	**	**	**	**	**	**	ns	1			
6	-0,86	-0,80	-0,83	-0,83	ns	-0,72	-0,86	-0,91	0,77	-0,66	ns	1				
7	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1			
8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	**	1		
9	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	0,77	1		
10	ns	ns	ns	ns	ns	ns	ns	ns	*	ns	ns	ns	ns	ns	1	
11	ns	ns	ns	ns	ns	ns	ns	ns	-0,60	ns	ns	ns	ns	ns	ns	1
12	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1
13	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1

1 – total import agriculture; 2 – total export agriculture; 3 – import fruits & vegetables; 4 – export fruits & vegetables; 5 – import cereals; 6 – export cereals; 7 – import live animals; 8 – export live animals; 9 – wheat area, 10 – wheat yield; 11 wheat production; 12 – maize area; 13 – maize yield, 14 – maize production; 15 – cattle heads; 16 - pigs number

** P<0,01, r>0,661; * P<0,05, r>0,533; N=14; df=N-2

Looking at import/export structure cereals/stock negative balance in Croatian agriculture is even more visible (Table 3). Meat, fodder and milk are between the most common import products, but at the same time Croatia exports cereals. Better case scenario would be the opposite one because cereals should be used and processed in meat and processing industry for the value added products for the better terms in foreign trade competitiveness.

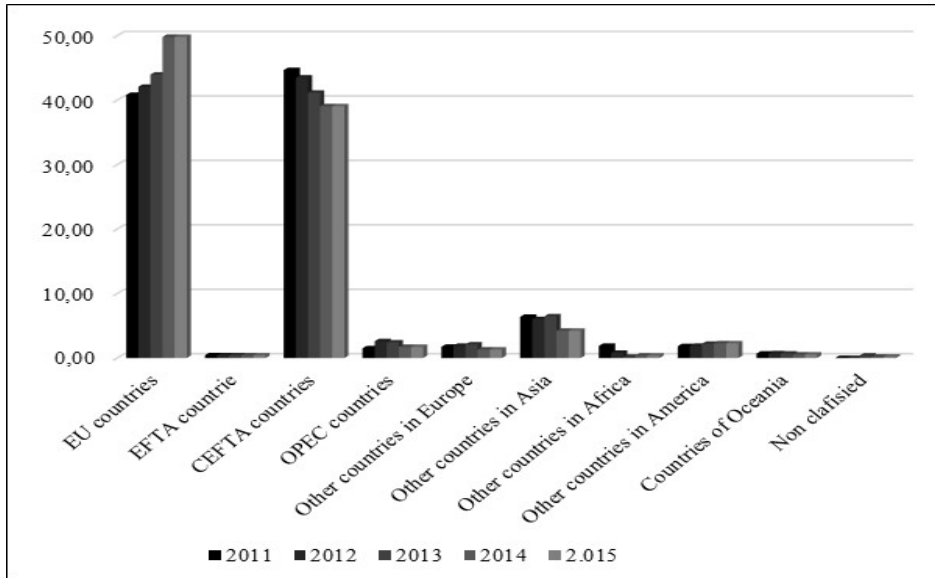
Table 3. Leading group of agricultural products according to chapters of Customs Tariffs (January-June 2014)

Rank	Import		Export	
	Products	000 USD	Products	000 USD
1.	Meat	180.625	Food products miscellaneous	109.458
2.	Animal food	118.833	Fish etc.	92.206
3.	Products based on cereals and starches	112.841	Beverages etc.	74.061
4.	Food products miscellaneous	110.135	Products based on cereals and starches	61.577
5.	Milk and milk products; eggs	108.041	Cereals	59.519

Source: Croatian Bureau of Statistics

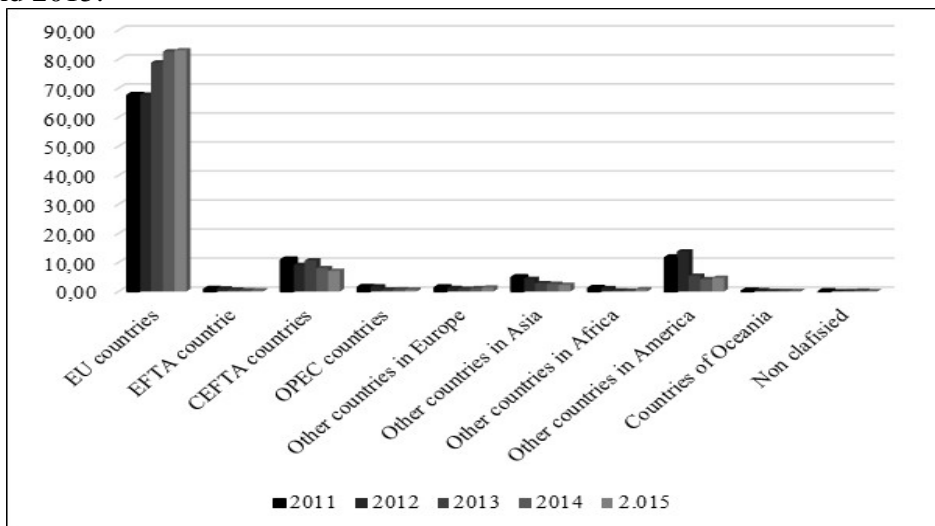
Food foreign trade exchange trend according to groups of countries

Croatian accession to the European Union has significantly affected the terms of trade with the countries of CEFTA. Bosnia and Herzegovina and Serbia were the most important CEFTA countries regarding trade with Croatia. Trade with Bosnia and Herzegovina was mostly liberalized, while in Serbia case, Croatia had decreased tariff rates. So, the changed terms of trade after Croatian joining EU, expectedly changed trade level with CEFTA because Croatia must adopt EU trade regulation. Croatia faced the worsening sale conditions with CEFTA countries. Considering Bosnia & Herzegovina and Serbia have signed Stabilisation and Association Agreements with the EU, their agricultural products are more protected by the EU, including Croatian products as well. Čudina and Sušić (2013) stated that the most pronounced negative changes in custom duties and ensuing reduction in exports can be expected in tobacco, meat and confectionery industries.



Graph 5. Agricultural export according to SITC sections and economic classification of countries

Graph 5 and 6 indicate change in agricultural export and import in the 2011-2015 period of time since in export significance of EU as final destination is increasing and for CEFTA is decreasing, especially in 2014 and 2015.



Graph 6. Agricultural import according to SITC sections and economic classification of countries

In import, case situation is even more visible, because import from EU countries is about 80% of all agricultural import, while in 2011 it was 67%. CEFTA loose share of 11% in 2011 to 7% in 2015.

Conclusion

Croatian agriculture is not competitive compared to developed EU countries. Croatia is facing many problems in agriculture: organizational weakness, market instability, high illiquidity, technological backwardness, educational mismatch with the needs of agriculture, high indebtedness, inadequate tax and fiscal policy, the lack of specialized financial institutions, erosion and disrepair of natural land resources, exodus population from the rural area, and poor land policy. The most important part in total agricultural value has crop production, mostly cereals production while livestock products contribute with 40% in the total value of agricultural production. The situation in livestock production is characterized by lower production capacities of agricultural family farms (prevalent in this agricultural branch in Croatia) with a non-competitive productivity per head. The result is low yields in crop production and stagnation in stock production.

Negative indicators in agricultural production are in direct connection to enormous import and negative foreign trade balance, while import/export ratio is 57%. Croatia export a lot of unprocessed products (cereals, fish eg.) and import meat, milk products and other product with added value and this situation should be changed. Joining EU shifted the trade from CEFTA to EU because Croatian products have not privileged free access anymore. Croatian agricultural policy should urgently be addressed to the weak points if we want to sustain the sector and better position on the European scene. The mechanisms of the CAP match the needs and offer solutions for solving the problems of Croatian agriculture and rural areas by implementing measures of rural development.

References:

- Božić, Miroslav, Gelo, Ružica and Sever – Koren., Anita. Croatian Agriculture and the European Union: which path for the future? *Sociologija sela*. 43 167 (1). 2005: 129 – 151.
- Čudina, Andrijana and Sušić, Gordi. The impact of Croatia's accession to the EU on economic relations with the CEFTA countries. *Ekonomski pregled*. 64 (4). 2013: 376 – 396.
- FaoStat (2017): <http://faostat.fao.org/> (8.3.2017.).
- Franić, Ramona, Jurišić, Žaklina and Gelo, Ružica. Food production and rural development – Croatian perspective within the European context. *Agroekonomia Croatica*. Vol. 4 (1). 2014: 16 – 24.
- Franić, Ramona and Žimbek, Tito. Pretpostavke za uključivanje poljoprivrede u proces pridruživanja Hrvatske Europskoj uniji. Pridruživanje Hrvatske Europskoj uniji. Izazovi ekonomske i pravne prilagodbe. Chapter 7. Institut za javne financije. Zagreb. 2003: 161 – 162

- Gelo, Ružica and Gelo Tomislav. Hrvatska poljoprivreda u kontekstu pristupanja Hrvatske u Europsku uniju. In: Grahovac, Petar (Ed.). Poljoprivreda i privredni razvoj. Proceedings of meeting agriculture and economic development. The anniversary of 80th birthday of academician Vladimir Stipetić. University of Zagreb. Faculty of Economy. Zagreb. 2008.
- Grgić, Ivo, Hadelan, Lari, Prišenk, Jernej and Zrakić, Magdalena. Animal husbandry in Republic of Croatia: current situation and expectations. Meso. No. 3, Vol. XVIII. 2016: 256 – 263.
- Grgić, Ivo, Zrakić, Magdalena and Županac, Gordana. Croatian foreign trade of agricultural and food products. Agronomski glasnik. 4 – 5. 2011: 263 – 276.
- Horvat Hrvoje. The future of Croatian family farms (in Croatian: Budućnost hrvatskih obiteljskih poljoprivrednih gospodarstava). HND. 2014.
- Jurišić, Žaklina. Croatian agriculture in common agricultural policy of the EU – today and tomorrow. Civitas Crisiensis. Vol. 1. 2013: 207 - 221.
- Lončarić, Ružica and Zmaić, Krunoslav. Liberalization influence on livestock production market. Ekonomski vjesnik. No. 1 and 2 (17). 2004: 43 – 52.
- Marković, Monika, Kralik, Igor and Peruzović, Ana. Family farming in the Republic of Croatia withion the way for the law on enviroment protection in agricultural production in European Union. Agronomski glasnik. 4. 2013: 197 -208
- Volk, Tina, Rednak, Miro and Erjavec, Emil. Western Balkans agriculture and European integration: unused potential and policy failures? Post-communist economies 24 (1). 2012: 111-123
- Statistical yearbook. Croatian Bureau of Statistics. Zagreb. 2002-2016

Control of Inflation on the Road of the Accession to European Monetary Union. The Case of Albania

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Abstract

The aim of this paper is to analyze the monetary policy and inflation targeting applied by the Bank of Albania on the road to Euro adaption. There will be a comparison with the monetary policy used by the European Central Bank for the countries aiming to join the European Union and it will be shown if the Bank of Albania's monetary policy rules adapt those of the ECBs. The data of inflation and exchange rates in the Albanian economy in 2005-2013 has been used. Since the variables are non-stationary and present unit roots, Johansen's co-integration technique has been applied. This methodology has allowed for obtaining of a co-integrating relationship among variables in the long-run. The co-integration results provide evidence of a no co-integration. This indicates that inflation and exchange rate does not move together in Albania in the long-run. According to the test results, it can be said that in the long-run foreign currency does not main cause of inflation in Albania.

Keywords: Inflation, Exchange Rate, Johansen Co-integration Test, Albania

Introduction

Albania since June 2014 is an official candidate for the accession to the European Union (EU). The process to the European integration is very important and Albania's work toward it has been increasing from year to year, and since June 2014 Albania has achieved the "candidate country's status".

The aim of the study is to investigate the control of inflation and inflation targeting, the monetary policy of Albania and European Central Bank (ECB) and the adaption of the Bank of Albania's (BoA) monetary policy to ECB. Some conditions are to be fulfilled to become a member of the EU and for Albania the most important one is to control inflation on the

road to the membership of the EU, so it must maintain price stability and inflation must decrease at the required levels of EU.

The history of the Albanian inflation has been through different values, it reached the highest one in 1997 because of the collapse of the famous pyramid schemes but those values have been decreasing since then. The most important financial institution, BoA always aims to maintain price stability as its primary objective and by achieving this; consequently the inflation rate must be kept at the required levels. Keeping the inflation target at this level will lead to positive effects in the road to the EU accession. Albania has to achieve the necessary degree of compliance with the membership, so it needs to fulfill these key priorities. The main objective of the ECB is to maintain price stability and it also should support the general economic policies in the EU to contribute to the achievement of the objectives. In this study the co-integration model is applied by using yearly inflation and exchange rate data for the case of Albania, in order to measure the relationship between these two variables.

In the following parts it is going to be discussed the monetary policy of the BoA and the indicators that lead to a successful decision making on the road to the EMU. The trends of the inflation rates achieved by BoA are going to be observed, inflation targeting launched by BoA from different years and objectives of BoA to reach stable inflation rates. Following by the monetary policy of the ECB contribution in the achievement of the Union's objectives, the criteria that a country must conduct to adopt the EU's single currency, the inflation targeting conducted by ECB, the adaption of the BoA's monetary policy to the ECB and the achievements that BoA has reached toward EMU.

The analyses used in this paper concerns in the examination of the long run relationship between inflation and exchange rates by using Johansen co integration test.

Literature Review

To further develop the analysis of this study, an important task is to analyze some same models which were carried out by some studies. A research study developed by Boka (2014) on the integration process of Albania to the EU attempted to present the current level of the Copenhagen criteria compliance prior to EU accession and the Maastricht convergence criteria for EMU entailed the price stability, exchange rate stability fiscal criteria and long-term interest rate criteria, which concluded that toward the integration to Europe, there should be made sustained efforts to permanently meet those criteria and assure the competitiveness of the Albanian economy in European markets.

An important research made on the central bank independence and inflation targeting for the case of Romania by Dumiter (2014) whose main purpose was to construct a new index for central bank independence and inflation targeting, which wants in the first place to eliminate the differences of de jure and de facto independence for measuring independence both for developed countries and emerging countries based on some legal aspect and of some actual practice and behavior of the central banks. In the second place, inflation targeting was considered and the central bank independence are mutually reinforcing. By increasing central bank independence this fact will automated lead to an increase transparency and accountability of the central bank, conducting to a higher credibility of the central bank and automated to an efficient inflation targeting regime. Moreover, an efficient inflation targeting regime can increase central bank independence through an explicit target and a higher transparency of this monetary policy regime.

The study made on the democratization in Albania, the OSCE, NATO and the EU by Mema (2010) gives a specific focus on the integration of Albania to the EU, in which was stated that the EU's aid and assistance to Albania have been adapted to respond to the needs of the political and economic situation in the country. The EU contributions have moved from emergency assistance to rebuilding infrastructure, from economic recovery to developing government institutions, legislation and social development and from reinforcing democracy and the rule of law to promoting regional and cooperation. Accessing the EU market would help ensure the realization of economic growth rates that may over time close the existing GDP per capita gap between Albania and other EU members .

A research study developed by Weyerstras (2008) on the Bosnia and Herzegovina's EU integration process and economic policy making in the EU, by addressing the current state of the country's accession process, the criteria defined at the European Council meeting in Copenhagen and Madrid, which candidate countries have to fulfill before acceding the EU. This analysis explored some possible macroeconomic effects of the country's accession as well as effects on public finances. The paper concluded that the stability and growth pact was intended to ensure the sound management of public finances in the euro area and to avoid a situation whereby a lax budgetary policy on the part of one member state is paid for by the others in terms of a negative impact on exchange rates or on confidence in the macroeconomic stability of the euro area.

A study developed by Muco, Sanfey and Taci (2003) examines the conduct of monetary policy in Albania during the transition period, identifies various channels through which monetary policy can affect prices and output. The vector auto regression model (VAR) of key macroeconomic variables estimated the weak link between money supply and inflation up to

mid 2000. It concluded by arguing that, a move to formal inflation targeting could help promote the transparency and credibility of the monetary policy, but such a move should be introduced only when the country is ready for it.

The IMF working paper on the inflation in Albania developed by Rother (2000) used a model of inflation to provide insight into the nature and extent of relative price adjustments during the transition period, and argued that some of their inflationary effects should not be resisted. It presented an econometric analysis of the impact on aggregate inflation of macroeconomic variables on one side and the skewness of the price distribution on the other. And the results showed that the continued need for relative price adjustments had put upward pressure on inflation. The inflationary impact is of an economically meaningful magnitude and, judging by the recent upward trend in the skewness of the distribution of individual price changes, likely to persist in the future. For the case of Albania, some higher inflation rate than that usually targeted in developed economies is likely optimal. In the latter, inflation targets around 2% can be justified by the effect of quality miss measurement and the desire to leave some scope for low or negative real interest rates.

Monetary Policy of the BoA

The main objective of the BoA's monetary policy according to the Law "On the Bank of Albania" is to achieve and maintain price stability, which is the greatest task that the central bank can perform to sustain the long- term economic growth of the country. The BoA details quantitative and qualitative indicators that will lead to a successful decision making in the monetary policy, it introduces the framework of instruments employed to implement the monetary policy and also presents the main instruments used in communicating the monetary policy to the public.

By maintaining price stability, directly the macroeconomic balances of the country will be sustained. Specifically, achieving and maintaining price stability, means keeping low but positive inflation rates and maintaining them for long periods of time. The estimations from BoA show that the monetary policy will continue to provide a positive contribution to the Albanian economy as it targets an inflation rate approximately at 3.0% (BoA, 2015) and this estimate shows that it affects positively the level and stability of the economic growth rates. Having a low inflation rate helps maintain positive real interest rates and facilitates the convergence process with the developed economies and also gives road the achievement of the aim of joining the EU.

Inflation and inflation targeting policy of the BoA

Inflation Targeting (IT) is the policy framework which is used to manage inflation is being adapted from a major number of countries since the 1990's. Albania has been one of those countries which has had major inflation fluctuations, where inflation was reduced from 85% in 1993 to 22.6% in 1994 and after this transition years reached the lowest value of 7.8% in 1995 but this rates would not be stable for a long time, as at the end of 1997 the annual inflation rate reached 42% as a result of the pyramid schemes collapse. (Bolle & Meyer, 2013)

In 1999-2000 Albania has a negative annual inflation rate that lead to a deflationary period, but in the mid of the 2001 inflation jumped to 5.6% and in 2002 reached a higher value of 7.7 %. Such high values where reached as a result of a series of factors like, electricity energy crisis, political problems, slower international economic growth and introduction of the euro at the beginning of 2002. Starting from 2003 inflation progress in Albania had been under the pressure of domestic and international macroeconomic developments in which it observed that the annual inflation rate has reached stabilized values due to the BoA tolerance band. (Boka, M.&Torluccio,G.,2013) Analyzing the period from 2007 to 2011 it can be observed that the average inflation rate dropped to 3.1% close to the BoA's inflation rate target. (BoA, 2013)

The BoA targets a positive inflation rate to take into account the fast technological evolution of products and their qualitative improvement. Also by targeting a low value of inflation rate leads to maintaining positive real interest rates, consequently helping generate savings and financial flows in supporting investments in the economy. The BoA has launched a target inflation rate of 3.0 % because of the need for higher relative price volatility and it also helps the convergence process with the developed economies to achieve the European Union. (BoA, 2014)

By comparing Albania to other transitions economies, inflation has been showing generally low rates and not far from inflation seen across EU countries. The benefits of inflation targeting in the long term are shown in the way of monetary policy is entertained by adopting Euro which is a long process if considered that it will take considerable period to the conclusion of this process.

Monetary Policy of the ECB

The main objective of the ECB is to maintain price stability and of its own monetary policy according to the Treaty on the Functioning of the European Union, Article 127. It should monitor the economic policies in the Union in order to contribute to the achievement of the Union objectives. The Treaty emphasizes a crucial importance to price stability because as it is the

most important contribution of the monetary policy scoping a favorable economic environment and higher employment and also all EU member states coordinate their economic policies for the benefit of the whole EU.

For a country which aims to adopt the European Union's single currency, the Euro, there are some criteria that are set in the Treaty of Maastricht which include:

1. Inflation rate not higher than 1.5% above the average rate of the three EU member states with the lowest inflation over the previous year.
2. National budget deficit at or lower than 3% of GDP.
3. National public debt must not be higher than 60% of GDP. (a country with a higher level of debt can still adopt the euro if it shows that its debt level is falling).
4. Long term interest rates should be no more than 2% above the rate in the three EU countries with the lowest inflation over the past year.
5. The national currency is required to enter the ERM 2 two years prior to entry.

When the Member State's economy adopts the single currency its exchange rate is fixed and the monetary policy is transferred under the control of the ECB which conducts it independently for the entire euro area. The aim of the economic entry criteria is to ensure economic convergence, also known as the "convergence criteria" the euro candidate country has to make radical changes to national laws and rules, especially regarding its national central bank and other financial institutions to be consistent with the Treaty. An important obligation is the independence of the national central bank, such as the monetary policy decided by the ECB is also independent.

One of the objectives of the ECB's monetary policy is to maintain stable inflation below but close to 2% over the medium term and in order to fulfill this task bases its decisions on a two pillar monetary policy strategy and establishes them by using its operational framework. To increase economic welfare and potential growth of an economy can be achieved by maintaining stable prices on a sustained basis.

Some crucial benefits of the price stability are to improve transparency of the price mechanism which allows people to consume and invest more efficiently, reducing inflation which reduces real interest rates and increases probabilities to invest, avoiding unproductive activities to hedge against the negative impact of inflation and the contribute to financial stability. (ECB, 2015)

Adaption of the BoA monetary policy to the ECB

In order for a country to be part of the EMU, in this case Albania, has to fulfill some political and economic criteria according to the "Copenhagen Criteria" which are the set of rules that define if a country is able to join the

EU and require that a state has the institutions to preserve democratic governance and human rights, has functioning market economy, accepts the obligations and intent of the EU and has the ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.

One of the most important successes of the Albanian economy development is monetary stability that is measured by inflation rates and also by the volatility of exchange rates and has reached some satisfied levels.

If Albania accesses to the EU, it will not become immediately a member of the euro area as it has to conduct exchange rate policy as a matter of common interest (Article 124 of the Treaty) which would exclude competitive devaluations. Entering the exchange rate mechanism systems like a pegging to other currencies, floating or a crawling fluctuation bank versus the euro would be expected. Adapting euro as the Albania's national currency would follow the application of the same criteria as for the already membership countries. A strict criterion of the Eurosystem is the independence of the national central bank which is a very important task. (EU, 2013)

The candidate status given to Albania at the General Affairs Council meeting in Luxembourg is a big step but still needs to meet some crucial priorities. But the candidate status does not mean that EU will start accession negotiations with Albania as there is required additional progress. Albania will be a member of the EU only if it demonstrates that it will be able to take its part fully and the BoA's role will be limited so it will be a member with no abrogation. Some consequences will be that Albania will have to conduct exchange rate policy as a common interest based on the "Article 124 of the Treaty" which will lead to competitive devaluations meaning fixed exchange rates to the euro with a fluctuation band. (EU, 2013)

Introducing the Euro as the national currency will lead to the application of the same criteria as the member states which issue a maximum inflation rate and interest rates in the year before the examination, a sustainable budgetary position and two years of membership of the ERM and also the independence of the national central bank is required. All these criteria must be applied strictly in order to introduce euro. But, entering the euro system in Albania has its own advantages and disadvantages, where foreign exchange inflows from emigrants will be in euro as long as they work in the euro area countries, most of foreign exchange inflows will be expressed in euro and consequently the domestic economy will be exposed to the risk of the euro exchange rate to other foreign currencies also against the domestic currency ALL. (EU, 2013)

Considering the price and exchange rate stability which for Albania are not methodologically in the same lines with those of EU member states,

it can be made exception only for CPI that fulfills the price stability criteria and an important task is that the monetary policy of Albania is strictly committed to attaining and maintaining price stability in the road to the EMU accession and the BoA has made successful progress in achieving this objective and it has been attaining low positive inflation rates considering the structural changes undertaken by the Albanian economy. But, despite this, the price stability criteria should not lead the country to adopt short – term measures to reduce inflation rather than structural reforms with long term benefits. Regarding the exchange rate stability it is suggested that ERM II membership will have less risky results to Albania if the exchange rate band is strengthened by stability oriented domestic economic policies. (BoA, 2014)

Albania has made progress in the road to the accession of the EU but further implementations are needed to strengthen monetary policy by including budgetary planning and public finance management. The BoA has to make further efforts in fulfilling the Copenhagen and Maastricht criteria in order to integrate to Europe and also has to guarantee the competitiveness of the Albanian economy in the European markets.

An Examination of the Long Run Relationship between Inflation and Exchange Rates: Johansen Co-Integration Test

This part is organized as follows: the regression model and data specification performed in the study; descriptive statistics of the variables; Johansen co-integration tests the co-integration of inflation and exchange rate (EURO/ALL) by carrying out a univariate analysis, and lastly Granger causality test.

Model and data specification

Consider the following regression equation model performed in this study:

$$INF = \alpha + \beta_1 EX_RATE + \varepsilon$$

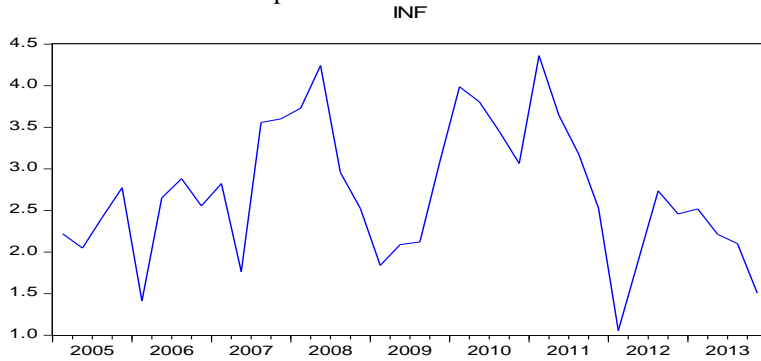
Where α represents the intercept, β_1 represents the estimated regression coefficient, ε is the error term. The dependent variable in equation (1) is inflation (INF) and (EX_RATE) represents foreign currency.

The data consist of quarterly inflation and exchange rate and obtained from INSTAT and the BoA database (<http://www.insat.gov.al/>; <http://www.bankofalbania.org>, accessed: 18 Nov 2014) for Albania for time interval 2005Q1-2013Q4. All tests are performed by using E Views7 statistical program.

Descriptive statistics

Following graphs give graphical representations of the data. Tables and figure show descriptive statistics of the data and regression output. According to the regression output, $DINF = -0.0393859616091 + 0.0447421363466 * DEX_RATE$ is the estimated regression model.

Graph 2. Inflation in Albania



Graph 3. Exchange rate (EURO/ALL) in Albania

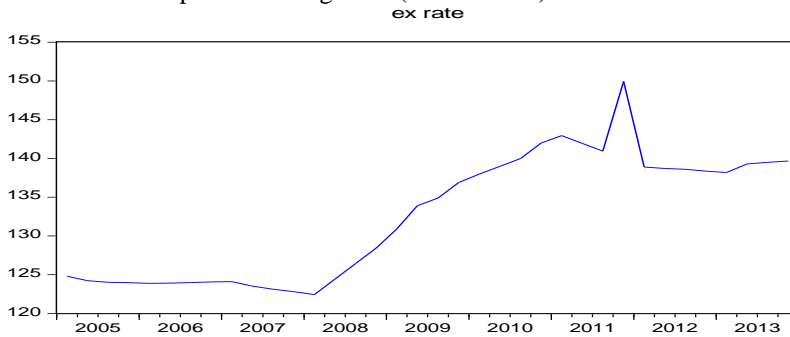


Table 1. Descriptive statistics of series

	INF	EX_RATE
Mean	2.716501	132.5108
Median	2.602763	134.3946
Maximum	4.360725	149.9364
Minimum	1.054288	122.4279
Std. Dev.	0.809894	8.051973
Skewness	0.168620	0.115165
Kurtosis	2.411850	1.606980
Jarque-Bera Probability	0.689476	2.990332
	0.708406	0.224211
Sum	97.79404	4770.389
Sum Sq. Dev.	22.95747	2269.199
Observations	36	36

Table 2. Estimation equation output of regression (levels) and its representations
 Dependent Variable: **INF**
 Method: Least Squares
 Sample: 2005Q1 2013Q4
 Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.326650	2.288915	1.016486	0.3166
EX_RATE	0.002942	0.017243	0.170627	0.8655
R-squared	0.000856	Mean dependent var		2.716501
Adjusted R-squared	-0.028531	S.D. dependent var		0.809894
S.E. of regression	0.821366	Akaike info criterion		2.498257
Sum squared resid	22.93783	Schwarz criterion		2.586230
Log likelihood	-42.96862	Hannan-Quinn criter.		2.528962
F-statistic	0.029114	Durbin-Watson stat		0.865444
Prob(F-statistic)	0.865528			

Estimation Command:

=====

LS INF C EX_RATE

Estimation Equation:

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INF = C(1) + C(2)*EX_RATE

Substituted Coefficients:

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$INF = 2.32664964396 + 0.00294203551032 * EX_RATE$

Figure 3. Normality test

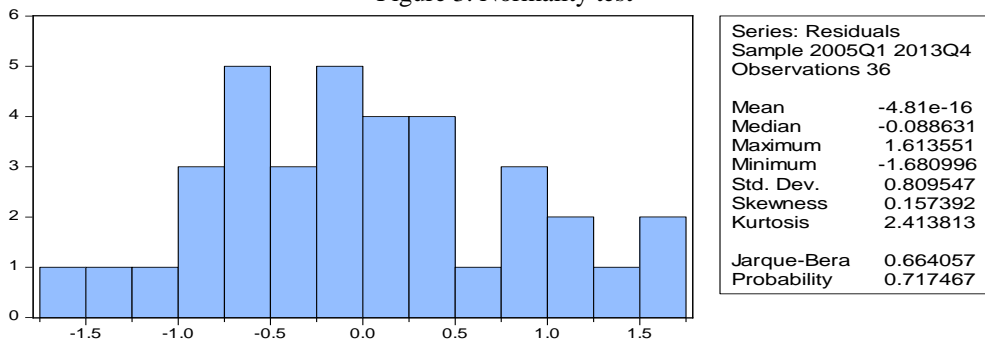


Figure 4. Stability test (levels)

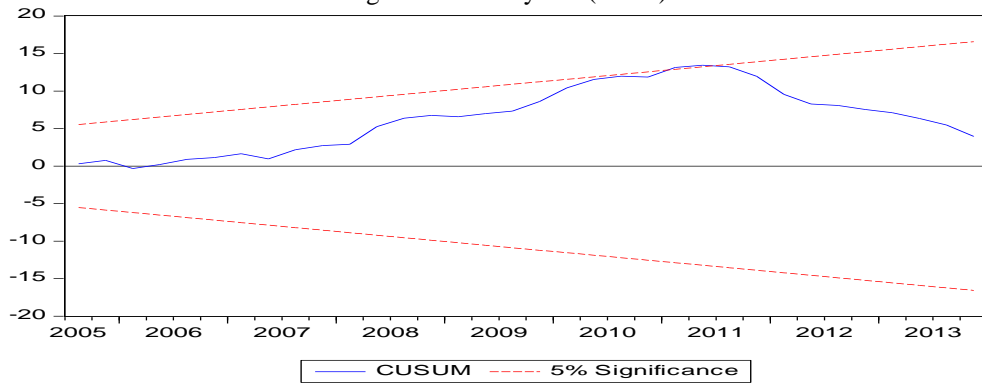


Table 3. Estimation equation output of regression (first differences) and its representations
 Dependent Variable: **DINF**
 Method: Least Squares
 Sample (adjusted): 2005Q2 2013Q4
 Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.039386	0.131337	-0.299886	0.7661
DEX_RATE	0.044742	0.049374	0.906190	0.3714
R-squared	0.024280	Mean dependent var		-0.020353
Adjusted R-squared	-0.005287	S.D. dependent var		0.764978
S.E. of regression	0.766998	Akaike info criterion		2.362779
Sum squared resid	19.41342	Schwarz criterion		2.451656
Log likelihood	-39.34864	Hannan-Quinn criter.		2.393460
F-statistic	0.821181	Durbin-Watson stat		2.253559
Prob(F-statistic)	0.371405			

Estimation Command:

LS DINF C DEX_RATE

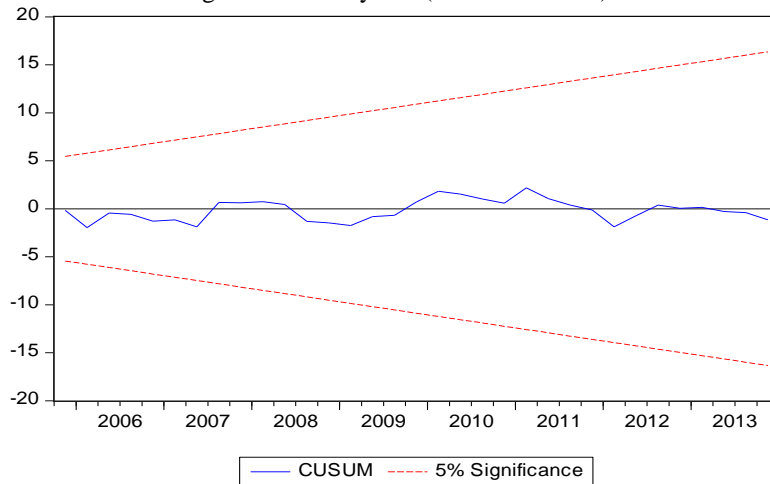
Estimation Equation:

DINF = C(1) + C(2)*DEX_RATE

Substituted Coefficients:

$DINF = -0.0393859616091 + 0.0447421363466 * DEX_RATE$

Figure 5. Stability test (first differences)



Johansen co-integration test

Time series data display a variety of behavior. The main reason why it is important to know whether a time series is stationary or non-stationary before one embarks on a regression analysis is that there is a danger of obtaining apparently significant regression results from unrelated data when non-stationary series are used in regression analysis. Such regressions are said to be spurious (Hill et al., 2008). Before analyzing the co-integrating relationship between variables, it is important to carry out a univariate analysis. The economic series tend to possess unit roots. The presence of unit roots in the underlying series points towards the non-stationary of the underlying series. If both the independent and the dependent variables show the presence of unit roots, the regression results do not hold much meaning. This is referred to as spurious regression, whereby the results obtained suggest that there are statistically significant relationships between the variables in the regression model, when in fact all that is obtained is the evidence of contemporaneous correlation rather than a meaningful causal relation. The problem of spurious regression is compounded by the fact that the conventional t- and F-statistics do not have standard distributions generated by stationary series; with non-stationary, there is a tendency to reject the null in both cases and this tendency increases with sample size (Gül & Acıkalın, 2008). The stationarity of each series was investigated by employing the unit root tests developed by Dickey and Fuller. The test consists of regressing each series on its lagged value and lagged difference terms. The number of lag length based on the SIC information criterion.

Table 4. ADF unit root (level) and first differences test results of INF
 Null Hypothesis: INF has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.904851	0.0549
Test critical values:		
1% level	-3.632900	
5% level	-2.948404	
10% level	-2.612874	

Null Hypothesis: INF has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.860678	0.1868
Test critical values:		
1% level	-4.243644	
5% level	-3.544284	
10% level	-3.204699	

Null Hypothesis: D(INF) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.751106	0.0000
Test critical values:		
1% level	-3.639407	
5% level	-2.951125	
10% level	-2.614300	

Null Hypothesis: D(INF) has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.765350	0.0000
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	

*MacKinnon (1996) one-sided p-values.

Table 5. ADF unit root (level) and first differences test results of EX_RATE

Null Hypothesis: EX_RATE has a unit root Exogenous: Constant Lag Length: 0 (Automatic - based on SIC, maxlag=9)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.996875	0.7436
Test critical values:	1% level	-3.632900
	5% level	-2.948404
	10% level	-2.612874
Null Hypothesis: EX_RATE has a unit root Exogenous: Constant, Linear Trend Lag Length: 0 (Automatic - based on SIC, maxlag=9)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.970425	0.5966
Test critical values:	1% level	-4.243644
	5% level	-3.544284
	10% level	-3.204699
Null Hypothesis: D(EX_RATE) has a unit root Exogenous: Constant Lag Length: 0 (Automatic - based on SIC, maxlag=9)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.977125	0.0000
Test critical values:	1% level	-3.639407
	5% level	-2.951125
	10% level	-2.614300
Null Hypothesis: D(EX_RATE) has a unit root Exogenous: Constant, Linear Trend Lag Length: 0 (Automatic - based on SIC, maxlag=9)		
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.857620	0.0000
Test critical values:	1% level	-4.252879
	5% level	-3.548490
	10% level	-3.207094

*MacKinnon (1996) one-sided p-values.

Table 4 and 5 shows the Augmented Dickey–Fuller (ADF) test under the null hypothesis of a unit root (level) and first differences of variables of INF and EX_RATE. This table also presents the number of lag length included in the regression. The hypothesis of unit root against the stationary alternative is not rejected at all levels of INF variable with constant and linear trend. ADF test of INF variable gives unit root at all levels. Therefore, first differences of that variable are taken and it is shown that INF data are stationary now. Hence, it has been concluded that these variable are integrated of order 1. Also, ADF test result of EX_RATE variable gives unit root at all levels with constant and linear trend, and therefore taking first differences that variable is stationary and integrated of order 1.

On the basis of the above-mentioned unit root tests, performed the Johansen's co-integration test to see whether any combinations of the variables are co-integrated. Johansen (1988), Johansen and Juselius (1990) have identified co-integration analysis. This approach uses a maximum likelihood procedure that tests for the number of co-integration relationships and estimates the parameters of those co-integrating relationship.

Table 6. Johansen Co-integration Test Results

Sample (adjusted): 2005Q3 2013Q4
 Included observations: 34 after adjustments
 Trend assumption: Linear deterministic trend
 Series: INF EX_RATE
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.*
None	0.213472	9.290944	15.49471	0.3392
At most 1	0.032593	1.126629	3.841466	0.2885

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.*
None	0.213472	8.164315	14.26460	0.3622
At most 1	0.032593	1.126629	3.841466	0.2885

*MacKinnon-Haug-Michelis (1999) p-values

LR test statistics and critical values are shown in Table 6. The results of both trace and max-eigen value tests suggest that there is no long-run co-integrating relationship between variables at the 5% significance level. In other words, a long-run stable relationship between variables does not exist.

Granger causality test

Table 7, presents the results of Granger causality test. The results of the co-integration test have been confirmed by Granger causality test results. Because of P values is greater 0.05, both “EX_RATE does not Granger Cause INF” and “INF does not Granger Cause EX_RATE” are accepted. Therefore, pair wise Granger causality test confirms the result of Johansen co-integration test results of no co-integration between variables in Albania in the long run.

Table 7. Pair wise Granger Causality Tests
Sample: 2005Q1 2013Q4
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
EX_RATE does not Granger Cause INF	34	1.23972	0.3044
INF does not Granger Cause EX_RATE		0.89313	0.4203

Conclusion

This study consisted of analyzing the monetary policy of the BoA which primary aim is to achieve and maintain price stability and maintain low but positive inflation rates for long period of times. It also introduces the framework of the instruments employed to implement the monetary policy. It was observed that the BoA targets an inflation rate of 3% as it affects positively the level and stability of the economic growth rates. Lately, inflation in Albania has been showing low rates and not far from inflation seen across EU countries and its benefits is reflected in the way BoA's monetary policy is entertained in adopting EU's single currency, the Euro.

This thesis empirically analyses the co-integrating long-run relationship between inflation and exchange rate in Albanian economy. Since the variables are non-stationary and present unit roots, Johansen's co-integration technique has been applied. This methodology has allowed for obtaining of a co-integrating relationship among the variables in the long-run. The co-integration results provide evidence of a no co-integration. This indicates that inflation and exchange rate does not move together in Albania in the long-run. According to the test results, it can be said that in the long-run foreign currency does not main cause of inflation in Albania. The reasons of current inflation are the monetary policy applications of the BoA and its consequences in the long-run. Therefore, exchange rate (EURO/ALL) policy does not effect on the long-run Albanian inflation, and control of inflation on the road of the accession to EMU mainly depends on monetary policies and monetary aggregates of the BoA.

References:

- Bank of Albania (2003). *Monetary Transmission: Case of Albania*, Translated by Demollari A., http://webcache.googleusercontent.com/search?q=cache:julQQ0QnkYUJ:www.bankofalbania.org/web/pub/Tema_e_kolasit_ne_konf_3_anglisht_229_1.pdf+&cd=1&hl=sq&ct=clnk&gl=al, (accessed in July, 2003).
- Bank of Albania, (2014). *Monetary policy document for the period 2012 – 2014*, Periodic Publications, Annual Report, http://www.bankofalbania.org/web/Monetary_Policy_Document_for_2012_2014_6346_2.php?kc=0,22,11,13,0, (accessed in February, 2010).
- Bolle, M., & Meyer, Th., (2004). The Effectiveness of monetary policy in Albania and the need for further reform, *Intereconomicus*, 39,5, 236-241, <http://65.54.113.26/Author/23919926/michael-bolle>, (accessed in 2006).
- Boka, M. & Torluccio, G., (2013). European Integration Process: Where is Albania?, *Academic Journal of Interdisciplinary Studies*, 2, 9, 2281 – 3993, <http://www.mcser.org/journal/index.php/ajis/article/download/814/845>, (accessed in October, 2013).
- Dotsey, M., (2006). *A Review of inflation targeting in developed countries*, Page 4, Business Review, Q3 https://www.philadelphiafed.org/research-and-data/publications/business-review/2006/q3/br_q3-2006-2_review_inflation.pdf, (accessed in September, 2007).
- Dumiter, F. C., (2009). *Central Bank independence and inflation targeting. The case of Romania*, The Romanian Economic Journal, 2012, Nr. 33, Pg. 23-60, <http://www.rejournal.eu/sites/rejournal.versatech...33-florindumiter.pdf> (accessed in June, 2014)
- European Central Bank (2003), *How does the ECB target Inflation*, Working Paper No.229, <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp229.pdf> (accessed in May, 2003)
- European Commission, (2013). *Albania 2013 Progress Report*, Enlargement Strategy and Main Challenges 2013 – 2014, http://ec.europa.eu/enlargement/pdf/key_documents/2013/package/al_rapport_2013.pdf, (accessed in October, 2013).
- European Commission, (2014). *Albania 2014 Progress Report*, Enlargement Strategy and Main Challenges 2014 – 2015, http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-albania-progress-report_en.pdf, (accessed in October, 2014).
- European Union (2013). *Democracy in Albania: The pace of progress*, Delegation to the United States of America, <http://tirana.usembassy.gov/press-releases2/2013-press-releases/democracy-in-albania-the-pace-of-progress-may-6-2013.html>, (accessed in May, 2013).

- Gül, E., & Açıkalin, S. (2008). An examination of the Fisher Hypothesis: the case of Turkey. *Applied Economics*, 40, 3227–3231. doi: 10.1080/00036840600994112.
- Hill, R. C., Griffiths E. W., & Lim, G. C. (2008). *Using eviews for principles of econometrics*. USA, Wiley.
http://www.researchandmarkets.com/reports/2326729/using_eviews_for_principles_of_econometrics_4th.pdf (accessed in October, 2011)
- Hu, Y., (2003). *Empirical investigations of inflation targeting*, IIE Working Papers Series WP No. 03-6, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=515002 , (accessed in March, 2004).
- INSTAT (2014), *Albania in figures 2013*, http://webcache.googleusercontent.com/search?q=cache:xOoXTyli3c4J:www.instat.gov.al/media/273497/shqiperia_ne_shifra__albania_in_figures_2014.pdf+&cd=1&hl=sq&ct=clnk&gl=al , (accessed in January, 2014).
- Johansen, S. & Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration – with applications to the demand for money. *Oxford Bulletin of Economics And Statistics*. Vol. 52, Nr. 2, Pg.169-210. <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0084.1990.mp52002003.x/pdf> (accessed in May, 2009)
- Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, Volume 12, Pg. 231-254. http://econpapers.repec.org/article/eedyncon/v_3a12_3ay_3a1988_3ai_3a2-3_3ap_3a231-254.htm (accessed in April, 2002)
- Luci, E., & Ibrahimi, F., (2007). *Issues in adopting inflation targeting in Albania revisited*, First Draft National Bank of Moldova and IMF, Monetary Policy Transmission And Inflation Modelling Seminar, Chisinau, <http://webcache.googleusercontent.com/search?q=cache:8cKYtljWGj4J:www.bnm.org/files/Luci.pdf+&cd=1&hl=sq&ct=clnk&gl=al>, (accessed in December, 2007).
- Mema, A., (2010). *Democratization in Albania. The OSCE, NATO and the European Union*, Institutional Archive of the Naval Postgraduate School, <http://calhoun.nps.edu/handle/10945/5268> , (accessed in June, 2010).
- Mishkin, F. S., (2000). *Inflation targeting in emerging market countries*, NBER Working Paper No. 7618 (Also Reprint No. r2277), <http://www.nber.org/papers/w7618> (accessed in August, 2000).
- Muco, M., Sanfey, P., & Taci, A., (2003). *Inflation, exchange rates and the role of monetary policy in Albania*, Fourth International Conference on Albanian Economy, Performance and Policy Challenges, September 11-12, 2003 in Saranda, Albania, http://webcache.googleusercontent.com/search?q=cache:o83_aJwkRh0J:ww

w.bankofalbania.org/web/pub/marta_247_1.pdf+&cd=1&hl=sq&ct=clnk&gl=al , (accessed in November, 2003).

Schadler, S., (2004). Charting a course toward successful euro adoption, *Finance & Development* , Volume 41, Nr. 2, Pg. 29, <http://connection.ebscohost.com/c/articles/13820601/charting-course-toward-successful-euro-adoption> , (accessed in June, 2004).

Rother, Ph.C., (2000). *Inflation in Albania*, IMF Working Paper /00/207, <http://www.imf.org/external/pubs/ft/wp/2000/wp00207.pdf> , (accessed in December, 2000).

Weber, H., (2012). *One for all – The ECB’S Inflation target* , Kiel Institute for the World Economy ISSN 2195–7525, Policy Brief No.54, http://webcache.googleusercontent.com/search?q=cache:2vLTAmZA-VoJ:https://www.ifw-kiel.de/wirtschaftspolitik/politikberatung/kiel-policy-brief/kpb-2012/KPB_54.pdf+&cd=1&hl=sq&ct=clnk&gl=al , (accessed in September, 2012).

Weyerstrass, K., (2008). Bosnia and Herzegovina’s EU integration process and economic policy making in the EU, *Academic Journal*, No.28 Pg.393, <https://www.econbiz.de/Record/bosnia-and-herzegovina-s-eu-integration-process-and-economic-policy-making-in-the-eu-weyerstra%C3%9F-klaus/10003846604>, (accessed in January, 2008).

Design of Serial Connected Vacuum Tube Solar Air Collector

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Abstract

Solar collectors are systems that convert solar energy into heat energy and transfer it to a fluid (liquid or gas). In practice, systems using for produce hot water and hot air. Solar liquid heaters aim to produce the hot water for houses and facilities (such as hotels, sports halls, etc.), while hot air generating systems are widely used for heating living spaces, heating greenhouses and drying agricultural products.

Vacuum tubes are now used in liquid heated solar collectors. The thermal efficiency of the vacuum tubes is higher than the flat plate collectors. However, there is no design for the use of vacuum tubes as air heating manifolds. In this study, it was aimed to design an air heating collector using vacuum tubes. In the designed collector, vacuum tubes are connected serial. Thus, it will be ensured that air is produced at high temperature from vacuum tubes.

Keywords: Solar collector, vacuum tube. Solar air heater

Introduction

The most common water heating systems is solar collectors in hot climate region. Solar water and hot water preparation systems vary according to the circulation and purpose of the water in the system, rather than the type of water to be prepared. Solar water heating systems (GESIS) are technologically well known and new developments are being made (Hepbaşlı and Utlü, 2004).

Today, solar air heater collectors are produced on a flat plate absorber surface. The planar air solar collector is a flat plate that acts as a black object for absorbing heat, and a structure consisting of one or more layers of glass or a permeable cover placed on the plate. All collector parts, except the permeable cover, must be thermally well insulated to reduce energy losses as much as possible. The permeable cover used reduces the transport and radiation losses to the atmosphere while allowing it to pass through the solar radiations and be held in the space between the planar plate and the

permeable cover or absorbed by the black body. The resulting heat is then transferred to the air passing through a duct located between the absorbent surface and the permeable cover (Duffie, J. A. and Beckman, W. A 1991.)

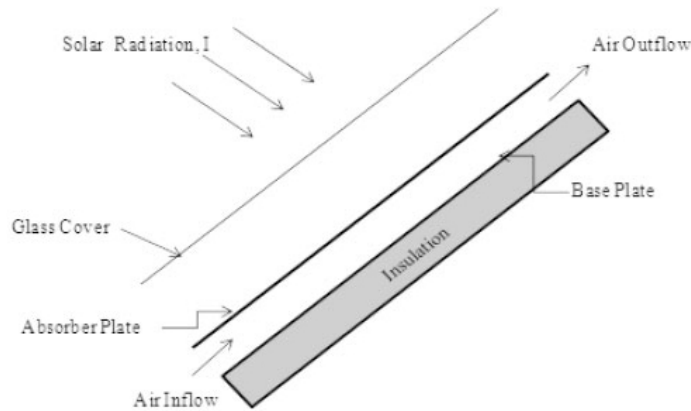


Figure 1. Flat Plate Collectors

Because the air used as heat carrier fluid in air heating collectors has low heat transfer ability, the efficiency of these collectors is lower than water heating collectors. For this reason, different applications are being made to increase the thermal performance of the collectors used to produce hot air. These applications include; replacement of the absorbent panel profile, development of different air flow patterns, and increase of heat transfer surface area and heat storage capability in the collector.

Vacuum tube collectors

Vacuum tube collectors have recently using as solar water collectors. The reason for this is that the efficiency of vacuum tube collectors is higher than that of flat plate collectors and that they can operate without antifreeze under cold climatic conditions. The reasons for the high efficiency of vacuum tube collectors are summarized below.

The vacuum tube has a structure in which the air between the lower and upper surfaces of two inner glass tubes is merged. Due to the fact that the air between two pipes is vacuumed, the heat losses by convection are low (Figure 2). This is the most important factor that increases the efficiency of vacuum tube solar collectors.



Figure 2. Vacuum Tube

Absorbent surfaces of vacuum tubes are in cylindrical form. For this reason, at every hour of the day, an area is formed that takes the rays of the sun vertically. The inclined arrival of solar rays in flat plate collectors increases losses through reflection. The cylindrical absorber surface allows vacuum tubes to more effectively utilize the solar radiations (Figure 3).

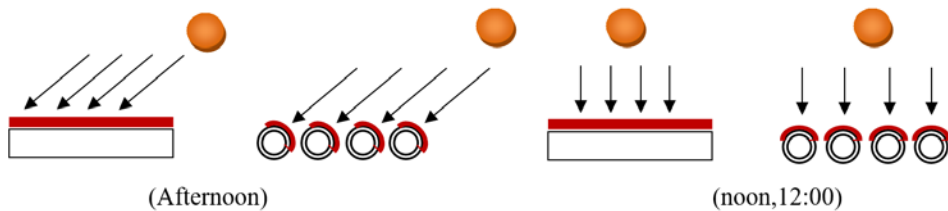


Figure 3. The position of the absorbing surfaces of vacuum tubes and flat plate collectors relative to the incident angle of solar radiation

There are many studies in the literature about determining the efficiency of vacuum tube solar water heating systems. In these studies, different efficiency values have been achieved due to the ambient conditions, the temperature of the ambient air, the radiation levels and the structural characteristics of the system used.

Öz et al. (2007) have experimentally compared the performance and efficiency of vacuum tube solar water heating system with standard flat plate water heating collectors. Experimental results show that vacuum tube solar water heating system has higher performance and efficiency than other systems. The yield values vary in the range of 48-58% for vacuum tube collectors, while for flat plate surface collectors under the same conditions this value remains within the range of 37-47%.

Koçer et al. (2015) by comparing them to the F-Chart method, which is widely used in evaluating the thermal performances of flat plate and vacuum tube solar collectors. The F-Chart parameter obtained by using this method gives a percentage value about the usability of the system and the

value approaching 100% means that the thermal success of the system is also high. The researchers calculated the F-Chart values for planar solar collectors by 64%, 50% and 39% for vacuum solar collectors, 77%, 62% and 50% respectively for 40, 50 and 60 ° C water temperatures.

Due to their high efficiency, the use of vacuum tube collectors in our country is increasing rapidly in recent years. Vacuum tubes are composed of two closed glass pipes (Uyarel and Öz, 1987). Because of the circular structure of the abrading plate in glass tubes, the yields are higher than other planar collectors due to the continuous vertical angle of sunlight (Bulut, et al., 2006).

Design of Vacuum Tube Solar Air Heater

In this Study, it is aimed to design an air heated solar collector using vacuum tubes. For this purpose, a structure is designed to provide air flow from vacuum tubes. Vertical air ducts are placed in the vacuum tube in the designed collector. The air flow diagram of the collector is shown in Figure 4. Air enter into the system with channel 1. Air comes out of channel 2 on the channel. Air is out of section 2 and moving upwards. The warming air passes through the No. 3 duct. The temperature of the air in the vacuum tube is further increased. The temperature of the output air can be increased according to the number of series connected vacuum tubes used in the system.

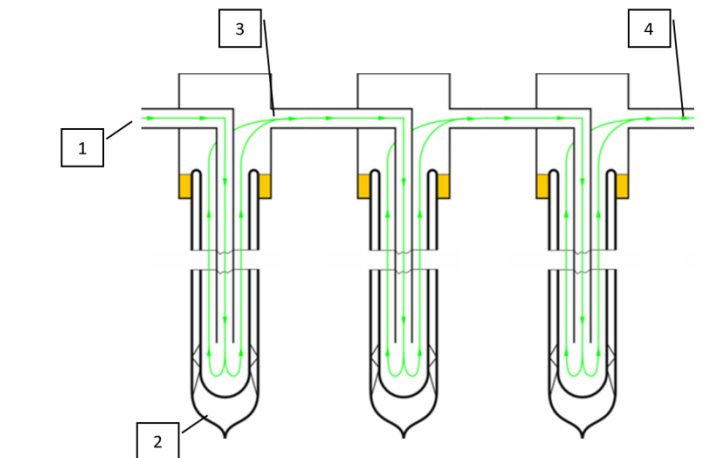


Figure 4. Schematic of the designed collector

The 3d model of the collector designed in the scope of the study is shown in figure 5. The exterior view of the collector is water-heated. The junctions of the air vents are in the upper chamber. The upper chamber has cold air inlet and outlet channels.



Figure 5. 3d model of the designed collector

The 3d model showing the internal structure of the designed collector is shown in Figure 6. The air entering the collector with blue troughs passes through the connected vacuum tubes and emits from the red channel. As the number of vacuum tubes to be used in the system increases, the temperature of the air taken from the exit channel will also increase.

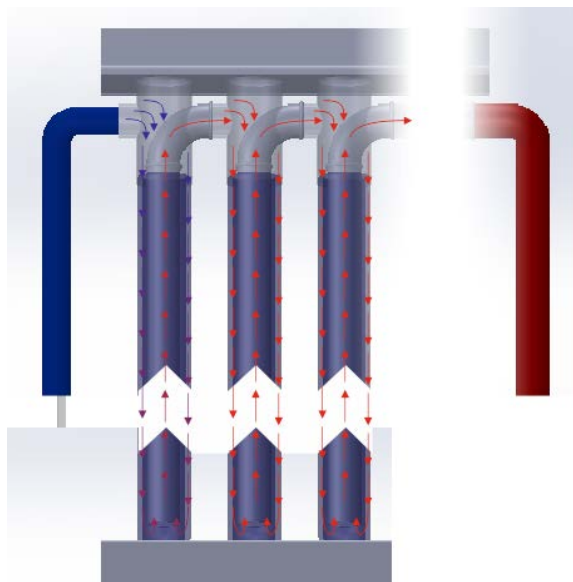


Figure 6. Internal structure of the designed collector

Conclusion

In the scope of the study, the vacuum tube solar air heater was designed. The most important features of the designed collector were the use of vacuum tubes and the serial connection of vacuum tubes. Vacuum tubes are more efficient than conventional collectors. The use of these collectors in air heating will increase efficiency. In addition, serial connection of the tubes will ensure that the outlet air temperature is raised. Designed collectors can be used in space heating and agricultural product dryers.

References:

- Bulut, H., Şahin, H., Karadağ, R. Güneş Enerjili Su Isıtma Sistemlerinin Tekno-Ekonomik Analizi. TMMOB Makina Mühendisleri Odası, Tesisat Mühendisliği Dergisi, 101, 23-33, 2007.
- Duffie, J. A. ve Beckman W. A. Solar engineering of thermal processes, John Wiley and Sons, New York, 1991.
- Hepbaşlı A., Utlu Z. Evaluating the energy utilization efficiency of Turkey's renewable energy sources during 2001. Renewable and Sustainable Energy Reviews, 8:237–255, 2004.
- Kocer, A., Atmaca, I., Ertekin, C. A Comparison of Flat Plate and Evacuated Tube Solar Collectors With F-Chart Method. Isı Bilimi ve Tekniği Dergisi, 35, 1, 77-86, 2015.
- Öz, E. S., Özbaş, E., Dündar, R. Vakum Tüplü Güneşli Su Isıtma Sistemi İle Standart Düz Kollektörlü Güneşli Su Isıtma Sistemlerinin Performans Ve Verimlerinin Deneysel Olarak Karşılaştırılması. VIII. Ulusal Tesisat Mühendisliği Kongresi, İzmir, 2007.
- Uyarel, A.Y., Öz, E.S. Güneş Enerjisi Uygulamaları Emel Matbaacılık, Ankara, 1987.

Measuring the Level of Urbanization, Adoption of Urban Values: Case of Immigration to Denizli City

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Abstract

In this study, the case of Denizli province where the urban transformation projects are taken for the solution of the problem of uneven urbanization will be discussed. Within the scope of the Denizli example, it will be tried to measure the extent to which the urban values of rural migrants migrate to the city. In other words, the level of social urbanization will be tried to be determined. For this purpose, questions were asked about urbanization and social urbanization for those who came to work from surrounding cities and Denizli countryside. Within the framework of the answers given, efforts will be made to determine how the degree of social urbanization has changed in the context immigrants. In this framework, urbanization process and social urbanization process of Turkey in the first stage will be briefly summarized. In the second part; The development of Denizli and the migration movement to Denizli will be briefly summarized and the social urbanization grades of immigrants in Denizli context will be discussed. In the context of urbanization and social urbanization analysis in Denizli City case, questions including basic indicators of economic and social aspects of urbanization - occupation, income level, solidarity, solidarity, cooperation, education, organization, information, methods of seeking rights, religious and political issues and family relations- are tailored and asked to participants.

Keywords: Urbanization, Urban Values, Social Urbanization, Immigrants, Denizli City Sample

Introduction

The Western-type of modern urban structure, in which industrialization and migration have been marched in parallel, transforms immigrants into their own socioeconomic and cultural structure. The Western-type of the modern city is inadequate in explaining the city structure and urbanization level in developing countries as in the case of Turkey. In Turkey, the immigration wave that has been streamed from rural to urban

areas with an increasing momentum after 1950 has not been treated as a parallel process with industrialization. During the period from 1950 to 2000, 70% of Turkey's population flowed towards cities. The inadequacy of housing and employment and the lack of urban adjustment mechanisms and the inability to meet the socio-cultural needs of the immigrant masses have caused the cities to face new problems. While the solution that the masses produced for the settlement in the urban adjustment process was a slum, the solution produced for the problems of socio-cultural adoption was the adaptation of rural community relations.

Emigration from rural to the urban areas has continued to increase in the course of economic liberalization of Turkey after 1980. After 1980's, immigration wave to the urban areas cannot be explained as a phenomenon that is only the result of the transformation of agricultural production. In terms of economic and socio-cultural aspects, immigration has gained momentum as cities have become centers of attraction. That is to say, while the migration in Turkey between 1950 -1980 occurred with more repulsive causes, it can be said that the attractive reasons after 1980's were more effective in the immigration wave (Keles, 2013: 67-68).

Urbanization of Turkey after 1990's can be considered as 'cities that cannot be urbanized'. The basic features of cities that cannot urbanize could be listed as the uneven structure of cities, the existence of slum areas, problems caused by high unemployment, problems of adaptation to the urban life of immigrants. One of the cities that fit the definition of unurbanized cities of Turkey in some aspects is Denizli (Torlak and Polat, 2006: 168-169). After 1980, Turkey's adoption of the export-driven economic growth model has made Denizli an attractive economic center. The wave of migration that grew faster than the industrialization experienced in this period prevented the formation of a city culture and belonging, as well as laying the foundation for the formation of shantytowns. The lack of job continuity of immigrants was a factor that made it difficult for migrants to adapt to the city culture.

In addition to the 2001 economic crisis, the decline in export rate in the textile sector, which is seen as a result of China becoming a member of the World Trade Organization, has led Denizli to weaken economically. In the post-2001 period, the migration wave to Denizli was cut off with the disappearance of the appeal created by industrialization and job opportunities. In this period, Denizli Municipality and "TOKI-Presidency of Mass Housing Administration" have tried to rehabilitate distorted city structure with urban transformation projects.

In this study, it will be tried to measure the extent to which the migrants from rural areas have accepted the urban values in the case of Denizli city. In other words, the level of social urbanization - adoption of

urban values- will be tried to be determined. For this purpose, questions were asked about urbanization and social urbanization for those who migrated to the Denizli city center from other cities and from the Denizli countryside. Within the framework of the answers given, efforts will be made to determine how the degree of social urbanization and urbanization has changed within the context Denizli city center. At first chapter, in the context of "notion of city structure", "notion of urbanization", "notion of social urbanization", the urbanization process of Turkey and the major problems that faced in urbanization process will be briefly summarized. In the second part; The development of Denizli city and the migration movement to Denizli will be briefly summarized and the degree of social urbanization of migrants in Denizli will be discussed. In the framework of social urbanization analysis, questions involving basic indicators of economic and social aspects of urbanization were directed to participants. Questions are about occupation, income level, solidarity, assistance, education and training, organization, information, methods of seeking rights, religious-political issues, traditions and customs, family relations. Within this scope, i will try to analyze the issues related to "social urbanization" in Denizli city case.

The Notions of City, Urbanization and Social Urbanization

The Notion of City

The most important differences between rural settlements and cities are; The social structure organized according to the division of labor, the economic structure in which the production of commodity and surplus production is made, and the intense population in which various social strata co-exist (Öztürk, 2009: 628-629). At the emergence of cities in time, trade has become more prominent because of its interaction with other civilizations and creating opportunities for market formation (Karatepe, 2005: 269).

According to Pirenne, city life has never developed independently in trade and industry in any civilization. The expansion of trade worldwide has changed socioeconomic status by influencing other countries and has provided the basis for the growth of cities (Pirenne, 1990: 98). The changes that took place in the socioeconomic structure of cities created different forms of the behavior, and way of thinking and life-style of inhabitants. The city culture, which emerged as a product of all these institutionalized attitudes, behaviors, lifestyles and beliefs, has led to centers of civilizations of humanity around cities. Cities with a civilization center are the settlements that carry the socio-cultural heritage of established communities. This common heritage has been formed the basis of urban culture by influencing

the physical structure of the city, such as squares, official and civil structures, settlements and trade areas (Karatepe, 2005: 270-271).

Ibn Khaldun emphasized the importance of the changes in the way of production and of the means of production in the formation of the city and civilization, thus revealing the importance of cultural interactions created by this change and by expanding trade transactions (Torlak et al., 2016: 76). Ibn Khaldun classified the settlements as urban and rural settlements according to the economic potential, production power and the abundance and prosperity created by this power. While at the same time he maintained that the settlements were constantly developing and changing in parallel with the development and capabilities of a human being (Ibn Khaldun, 1990: 302).

The accelerated migration movement from the rural area to the city, along with the industrial revolution, led to the growth of the cities on the one hand, and on the other hand to the structural changes that the urban centers would accommodate more people. The problems of the working class like housing, health, and education necessitated a new order in urban life. The modern city can be defined as a settlement area with a certain size and density and a social center with an organized social structure based on heterogeneous, secular and the whole production is supervised and its distribution is coordinated (Özer, 1983: 75-76).

The Notion of Urbanization

Industrialization and urbanization have made a transition to a heterogeneous society based on the division of labor and material interest, individuality, and secularism from homogeneous society structure in which traditions and values prevail. Although the city is a static concept, the concept of urbanization, which includes an expansion based on migration, has a dynamic structure. Urbanization includes a process of immigration to the city, which leads to socioeconomic and cultural change within a new settlement area and form (Torlak and Polat, 2006: 170). The notion of urbanization describes the change in a certain period of time. Especially the change in the form of production is the most important element of the urbanization process. Supervision of production and trade in the modern cities led the cities to expand with immigration and gaining population density. At the same time, this situation creates diversification in the economic sphere and increases integration in the sociocultural sphere (Keles, 2006: 24).

Today, the most distinctive feature of urbanization is the changes in the areas of communication and transportation. Urbanization in developed societies is generally parallel to the level of development, while the level of industrialization in developing societies is lower than the rate of urbanization (Keles, 2006: 28). The modern city, which was shaped by the 19th and 20th

century's capitalist production process and community structure, has generally undergone an irregular, unplanned and unsupervised urbanization process (Özer, 1983: 79).

The reason for the migration to cities from rural areas is not the attraction of cities but the lack of opportunity in rural areas, which makes the difference between underdeveloped country urbanization and developed country urbanization. Another difference is the inadequacy of the industrialization that can absorb the density of immigration experienced in the city. In the underdeveloped countries, this situation led to the accumulation of large masses that could not be integrated into the city life, but also to the formation of two different city types with different socio-cultural qualities within the same city (Özer, 1983: 80).

Urbanization Process of Turkey

Urbanization process in Turkey has developed in the opposite direction to the processes in developed countries. The urbanization phenomenon in Turkey, which started in the 1950's and gained momentum after the 1980's, has not yet begun to emerge as urban migration from rural areas due to the demand of the industrial sector for labor. Migrants are more likely to be agricultural workers or sharecroppers, lacking capital and land. The only addresses of these desperate masses, who were left unemployed and forced to emigrate, have become big cities where they hope to find work. However, many of the families who migrated to the city in hopes of finding a job were disappointed that they could not find a job due to unfamiliar industrialization at the same rate as immigration (Kuntay, 2001: 317).

Cities that do not have the structural and economic capacities to absorb the influx of immigrants have faced new problems. The newcomers to the city have had to meet their needs for accommodation with irregular and unplanned jumpsuits. This problem of irregular settlement as well as the fact that rural life and congregational¹ relations are dominated by a disconnected lifestyle can be considered as the main factors that undermine the urbanization process (Saglam, 2006: 42).

Since the 1960's, there have been significant differences in the urbanization process of Turkey. The rapid wave of immigration and slum dwelling are the changes that marked the shaping of cities. In this process, Turkey has been faced the problems that the slum dwelling had created in the urban structure, and at the same time faced the problems of social

¹ "Congregation"; Face-to-face, a structure based on a solid community feeling that has blood relations between the members of the primary relationship and our emotion, and this structure corresponds to a rural social unity. "The Community" is based on a structure in which secondary and official relations exist, where the specialization grows, the individualism dominates, and it is related to city life (Saglam, 2006: 42).

urbanization of the migrants. The migrant population has not been able to find a regular and satisfactory job for that reason they have been a part of the informal service sector in order to survive in the city. The disadvantaged situation of immigrants, who are the main actors of slum dwellings and informal economy, have created new problems with social urbanization process. This situation also creates the potential risk of polarization in the sociocultural structure of the city (Çiçek, 2010: 48-49).

The Notion of Social Urbanization: Adoption of Urban Values

One of the problems caused by the rapid migration is the distress experienced by the individuals who migrated to the city in the process of adopting to the socio-cultural values of the city. Within this context, the process of socialization and the change in the attitudes of individuals within the urban culture is called social urbanization (Torlak and Polat, 2006: 170). According to Özer, social urbanization is the expected change in the lifestyles of those who migrate from rural to urban areas (Özer, 2004: 121). Social urbanization; The process of social change after urbanization, the change of behavior, relationship, value judgments and material-spiritual lifestyles of the individuals. In this process, the migratory person is transforming into an urban person by changing his behavior and adopting to the urban culture.

"Social urbanization" is the most important factor in the process of being an individual, independent of the congregation to which the immigrant is affiliated. In this process, the traditional attitudes and behaviors of the individual begin to disappear and then new patterns of behavior are adopted and assimilated. Behavior and attitudes related to solidarity, cooperation, education and training, organization, information, methods of seeking rights, religious-political issues, male-female and family relations can be considered as the main indicators of "social urbanization-adoption of urban values" in socio-cultural aspect (Torlak and Polat, 2006: 171).

The concept of "social urbanization" is closely related to the cycle of life in the city. The concept of social urbanization requires a lifestyle that needs to conform to certain rules and also requires adherence and dedication to it (Yalcin, 2010: 232). In this context, social urbanization also corresponds to the integration process. Urban integration process does not always occur positively. Demographic, socioeconomic and cultural characteristics of individuals and the internal dynamics of the city affect the integration process negatively or positively.

Analysis of Denizli's Urbanization and Social Urbanization Process Urbanization and Social Urbanization in Denizli City

Urbanization and social urbanization processes which do not parallel to industrialization in Turkey are closely related to each other and they are generally problematic. The type of urbanization in Turkey has undergone a "fast, distorted, excessive, fake, unbalanced and unidirectional" development within the underdeveloped country urbanization sample (Keles, 1990: 14). It is clear that urbanization is a sociological process and it directly affects "social urbanization" when it is considered that it influences and reshapes the sociocultural and socioeconomic structure of the city. In this context, the process of social urbanization in a city, where the urbanization is distorted and irregular, will also be distorted.

The population of Turkey has a dynamic characteristic. This dynamism is mainly due to the fact that the rate of population growth is higher than that of developed countries. 75% of the population in Turkey has lived in villages between 1927 and 1950. In the year of 2000, the density of population in rural areas decreased to 35% due to intensive migration from rural to urban areas (Yalcin, 2010: 113-114). According to the 2010 data of Statistical Institute of Turkey; 76,8% of the total population (57.385.706 people) live in provincial and district centers while 23,2% (17.338.563 people) live in towns and villages (<http://www.tuik.gov.tr/PreHaberBultenleri.do?id=10736>). Finally, according to the data of the Turkish Statistical Institute in 2014; 91,8% of the total population resided in provincial and district centers, while only 8,2% resided in towns and villages (<http://www.tuik.gov.tr/UstMenu.do?metod=temelist>). The main cause of this sharp decline in 2014 compared to 2010 was the adoption of Metropolitan City Law, which entered into force in 2012. With this law, a total of 1.023 small town municipalities and 16.082 village legal entities have been abolished. The town municipalities were abandoned and connected to the nearest district municipality as a neighborhood. The village settlements are connected to the district municipalities in the neighborhood status also. While the status of the inhabitants of the countryside does not change, only the peasants and the surrounding provinces are involved in metropolitan city administration.

In parallel with the rapid urbanization wave in Turkey after 1980's, the city of Denizli has been transformed into a rapidly growing and migrating city. Migrations mostly have been originated from surrounding cities such as Burdur, Afyon and Uşak and from the countryside of Denizli city center. Until the late 1970s, the significant portion of the population lived in the rural areas and engaged in agriculture in Denizli province. After 1980's existence of export-driven industrialization process in Denizli has

changed the social structure dramatically. Indeed, the population of the Denizli city center has shown a steady increase during the period from the “1927 General Population Census” to the present day. The main reason for this increase in the urban population is the internal migration, which is due to the developments in the industrial sector to a large extent, together with the attracting factors -education, employment, social status, transportation, communication, infrastructure, a better life expectancy, social and cultural activities-.

During the period of 1990-2000 period, a significant increase in employment in the industry and service sector has occurred in Denizli. Three-quarters of the new workforce of 12,980 persons recruited in the center of Denizli in the textile business sector (Arlı, 2009: 194) This data put forth the weight of the textile sector in the socio-economic transformation of Denizli. Urbanization process of Denizli, which settled in a unique position due to its industrialization in the period of 1990-2000 without decreasing its agricultural production, is closely related to the fact that Denizli countryside has fertile agricultural lands. As a matter of fact, according to the data of 2013, Denizli was in the 15th place in Turkey in terms of herbal production value (<http://www.tuik.gov.tr/ilgostergeleri/iller/DENIZLI.pdf>). Despite the rapid development of the industry, the protection of the power of agricultural employment has only been realized in Denizli among industrialized cities in Anatolia (Arlı, 2009: 206).

As a matter of fact, the 2001 crisis and the entry of cheap Chinese goods into the world markets led to the weakening of the textile sector after 2000's, which constitutes Denizli's development engine and provides a large portion of employment. In this period, the textile workers, who were in the status of unskilled workers, mostly remained unemployed. A decrease in employment occasions has reversed the migration trend to Denizli (<http://www.tuik.gov.tr/UstMenu.do?metod=temelist>). At first sight, the migrations to Denizli has fallen. When it comes to 2011, migrations outside of Denizli have begun.

Figure 1. Population Registration System of Cities 2011

	Population	Immigration number to the City	Immigration number from the city	Net immigration number	Net immigration rate
TURKEY	74.724.269	2.420.181	2.420.181	0	%0
DENIZLI	978.700	23.454	23.853	- 399	%- 0,42

(http://rapor.tuik.gov.tr/reports/rwservlet?adnksdb2&ENVID=adnksdb2Env&report=wa_adnks_net_goc.RDF&p_kod=2&p_il=20&p_yil=2011&p_dil=1&desformat=html).

After the increase in the unemployment rate in Denizli, the return of immigrants coming from the surrounding provinces, districts, and villages, which is one of the important sources of migration, is one of the reasons for

Denizli becoming unattractive for immigrants. The other reason is that the rural area of Denizli and the surrounding provinces still have a strong agricultural employment capacity due to their fertile lands. As a matter of fact, 76,8% of the total population of Turkey (57.385.706 people) resides in provincial and district centers while 23.2% (17.338.563 people) live in towns and villages (<http://www.tuik.gov.tr/PreHaberBultenleri.do?id=10736>). On the other hand, 68,8% of the Denizli population live in the city and 31,2% live in the towns and villages ([Http://denizli.gov.tr/webb/index.php?option=com_content & view = article & id = 118 & Itemid = 70](Http://denizli.gov.tr/webb/index.php?option=com_content&view=article&id=118&Itemid=70)). As this data show, the rural population in Denizli is above the average of Turkey.

When the "social urbanization" and the formation of urban identity in Denizli is analyzed, it can be said that being immigrated to the periphery of the province and rural areas does not lead to identity discrimination and polarization between the urban residents and immigrants (Torlak and Polat, 2006: 174). The fact that immigrants come from the same sociocultural origins as the residents of the city has been the factor that facilitates the process of urban alignment and "social urbanization". In addition, the growing economy is another factor for the city to offer opportunities for everyone, which does not lead to a clear polarization between residents and immigrants. However, the decline in industrial production after 2000's and the emergence of unemployment could be one of the factors that could trigger the socioeconomic polarization (Torlak and Polat, 2006: 174).

After 2000's, it can be said that there is a polarization in Denizli's living quarters. Especially in the neighborhoods such as Servergazi, Çamlık, Kınıklı, Bereketli, luxury houses are seen to rise; In the districts such as İlbadi, Anafartalar, Dokuzkavaklar, Sevindik, the structure of the squatter housing is seen. Nevertheless, it can not be said that this differentiation of living spaces has led to the social polarization in the same manner. In this period, the implementation of urban transformation projects with the initiative of the Denizli Metropolitan Municipality or TOKI has been a factor preventing the spatial and sociocultural polarization to increase further.

Field Survey on Social Urbanization in Denizli City

According to the concept of urbanization, the city unites its residents around similar cultural codes. Thus the common city identity is revealed and adopted by all the city dwellers. According to the assumption of urbanization, this identity of urbanism transforms the people who have immigrated to the city in time, in a socio-cultural sense.

Thirty-five questions were prepared in relation to the theoretical frameworks in the previous sections of the study of the citizens who emigrated to Denizli in order to measure urban identity and degree of social

urbanization. Participants were mainly selected from the employees of the textile sector. In addition to the blue-collar workers in the textile sector, white-collar employees who came to the city due to university education and appointment were also included in the survey. Due to the presence of men as well as the weight of women in the employment of the textile sector, the research has not been discriminated against men and women.

The created questionnaire form was applied to 411 participants in the research universe at march 2015. It is easy to use the easy sampling method. It is thought that it is difficult to determine a sample with probable methods from the main mass because of the individuals in the stage work in various enterprises. The questionnaire forms were examined by the researcher and the presence of participants who did careless coding over a single answer was checked. As a result of the examinations and checks made, 380 available questionnaires were obtained. For this reason, it was decided to continue the analyses with 380 observations. Data obtained within the scope of the study were analyzed and reported using the SPSS 20.0 package program.

58% of the participants were women and 42% were men. 76% of the participants were from the age group 26-45, 15% from the age group 18-25. The proportion of the population aged between 18 and 45, which can actively work due to the attractive power of the industrial sector in Denizli, is above the Turkish average ([http://www.denizli.bel.tr/userfiles/file/2012-2016%20 STRATEJIK% 20PLAN.pdf](http://www.denizli.bel.tr/userfiles/file/2012-2016%20STRATEJIK%20PLAN.pdf)). Participants included in the survey consist mainly of this group in accordance with this database.

While 43% of the participants were university graduates, 21% are high school graduates. The ratio of primary school graduates was around 16%. The fact that the ratio of university graduates in women is 68% indicates that women who come to the city due to education are easier to adapt to business life and urban life.

While 40% of the participants come in less than 1000 TL, 23% of them come in the range of 1000-1900 TL. The excess of the minimum income is a natural result of the textile sector, which does not require qualified employment. Considering that the weight of university graduates is high among the employees, studying for less than 1000 TL indicates that university graduates can not work in a job they desire. On the other hand, this data can be seen as data showing hidden unemployment for university graduates.

73% of the participants were married and had a family structure consisting of the mother, father, and children within the core family formation. 26% of respondents have lived in the same house as two people and 71% have lived between 3 and 5 people. This data shows that the extensive family structure that constitutes one of the characteristics of the slippery settlement structure was not very common in Denizli. This data

stems from the fact that migration to Denizli mostly comes from the surrounding districts and cities. Another reason for not seeing the extended family structure is that parents prefer to stay in villages with fertile lands instead of migrating. This shows that immigration takes place predominantly by the younger population, both in terms of attractiveness of the city and economic reasons. The spouse of 67% of the participants was working. This data confirms that the migration to Denizli is experienced in the form of a nuclear family. Due to unskilled employment in the textile sector, the low wages have brought the spouses to work as well.

Those who migrated to Denizli; 34% due to economic reasons, 14% due to education and 14% due to the appointment. 27% of the migrants came from the surrounding cities, 21% from the villages of Denizli and 16% from the district centers of Denizli. When immigration periods of immigrants were examined it was seen that; the rate of living in the city during the period of 0-5 years was 20%, the rate of living in the city during the 6-10 years was 22%, the rate of living in the city during the period of 11-15 years was 17%, the rate of living in the city during the period of 16-20 years was 20%. The proportion of those who are more than 20 years old was 20%. This data show that Denizli has formed a center of attraction as a result of the economic breakthrough after 1980's.

In the survey, the main factor in finding employment was the very large proportion of migrant workers (73%) taking their own efforts and receiving 15% of friendship support. This data reveals that the relatives and citizenship solidarity, which is one of the main features of slum settlement, was not seen in Denizli case. The fact that the textile sector, which constitutes the main employment area in Denizli, has a high rate of unskilled labor and a high rate of the changing job (35% of the participants once, 32% of them have made many job changes) is another factor that job seekers do not need extra support.

Given the frequency of visits of migrants to their homeland, 50% have visited several times a year. The reason for the visit was 73% in the form of a family visit. This rate shows that immigration takes place in the form of a nuclear family, but also immigrants show strong family ties parallel to the classical Turkish family. In other words, the parents or some of the relatives remained in their living place. This data shows that the migrant movement in Denizli is not in the form of classical shantytowns where the parents and the relatives live together. As a matter of fact, this data can be seen as an indication of the absence of sociocultural polarization between the developed regions of Denizli and the neighborhoods where the slum dwelling is located.

80% of those who migrated to Denizli had no income-generating assets in their homeland and 60% has received food aid from their

homelands, which is another indication that the cause of migration was economic. Considering that the majority of migrants to Denizli are from neighboring cities and Denizli's countryside, but those who do not own land or property. This data reveals that the ratio of rural population in Denizli and its surroundings is above the Turkey average and migration to Denizli proves to be largely economic reasons than the attraction of the city.

The reason why 43% of the migrants preferred the neighborhood selection was its closeness to the city center. Only 18% of them have settled in the neighborhood in order to be close to their relatives or cronies. This data also shows that the classical slum dwelling structure is not valid in Denizli. It is seen that the city center was preferred because of easy transportation facilitates and cheaper rentals. It is important to say that 80% of migrants to Denizli were happy to migrate to town and 78% of them were satisfied with coming to town in terms of being a sign of the sense of belonging to the city. These data is important in showing that urbanization in Denizli and sense of belonging to the city are strong. Considering that the reasons for the migration are largely economic, it is seen that the Denizli economy is still able to generate employment despite the contraction in the textile sector in recent years. In addition to investments provided by the municipalities, TOKİ has facilitated the process of city adaptation and increased its satisfaction with those who migrate to produce new housing within the scope of urban transformation projects. At the point of social urbanization and the formation of urban consciousness, it can be said that it has made the duty of the municipality in particular. While 55% of participants are on the rent, 39% have their own home. The fact that 39% of the lower income groups are homeowners, reveals the high level of satisfaction that the city migrated.

The answers to the foreground in the evaluation of leisure time were; 23% spent time with friends, 15% watching television, 15% reading books and 13% visiting the relatives. Spending time with friends and other answers was more often than not having to spend time with the relatives because relocation to Denizli is more like a nuclear family. Given the frequency of visits to neighbors, it was stated that 34% of participants reported occasionally. The rate of frequent visitors was only 13%. This data could be evaluated in line with metropolitan city characteristics where the core family structure is dominant. Therefore, it can be said that there is no slum structure in Denizli where kinship relations dominate

73% of the participants stated that they would move with other residents in a problem that the locals are experiencing. But 83% said they would not attend the meeting to be held on such problems. These answers reveal a contradictory situation. When there was a problem with the neighborhood, the main authority applied was the "neighborhood headman"

of 63%, followed by the related institutions by 19% and the municipal response by 11%. This data shows that the low level of political participation at the country level (except for the voting) is also reflected at the local level. In the same way, it shows that the locality and the urbanization consciousness are not fully occupied either. It can be said that the centralized politics in Turkey clogging the political participation channels cause the inability of the development of localism and the weakening of the urbanization culture.

Asked whether the political preferences of immigrants have changed, 83% of respondents said they did not change their political preferences. The reasons expressed by those who change political preferences were related to economic reasons rather than ideological reasons. Migrating from nearby cities or from the surrounding villages to Denizli didn't cause any change in the current political attitude of migrants. Moreover, employment opportunities in Denizli, TOKI's and the Denizli Metropolitan Municipality's adequate social housing production have prevented socio-cultural polarization, which has reduced the volatility of political preferences. While 50% of the participants read both newspapers and magazines, only 5% of the respondents said that they do not read newspapers or magazines. 70% of the newspaper readers bought the newspaper by himself, 12% of them read the newspaper that was bought by the family members, and 12% of them read the newspaper that was bought by their friends.

In familial issues, 65% of respondents said "we will make a joint decision", while 13% answered, "my father will decide". The vast majority of those who say "My father decides" are single participants living with their parents. The vast majority of married participants gave a "joint decision". In response to "a joint decision", both spouses work, and especially the married couples living as a nuclear family are influential. The male dominant family structure in Turkish society still maintains its validity, especially in the extended family model.

Conclusion and Suggestions

The concept of social urbanization is directly related to urban lifestyle. In other words, the concept of urbanization requires that the inhabitants of the city live a life that conforms to the rules - to be respectful to others, to not harm urban common objects and places, and to avoid behaviors that disturb others. At the same time, residents of the city must love the city and feel themselves to be a part of the city.

The biggest obstacle to social urbanization can be seen as the problems of employment and housing for immigrants. In addition to solving these two problems, providing equal service to disadvantaged groups by local governments could support to develop the awareness of urbanism. It is

wrong to expect that people living in urban areas will develop their urban behavior by themselves. In order to ensure the abandonment of misconceptions that are frequently seen in cities in Turkey, local governments have to enforce the practices which are the absolutely sanctioning force (Yalcin, 2010: 240).

Denizli province, which has been greatly influenced by the changes in the economic area after 1980's, has become a city where the unemployed immigrants have been intensified by the growing industry. Parallel to the developing industry, besides the immigration wave towards Denizli, it brought with it problems such as education, health, not getting enough benefits from urban services, and being unable to integrate with the city. One of the most important problems that arise for urbanization is the shanty town construction produced by poverty. Particularly in the neighborhoods such as Sevindik, Dokuzkavaklar, Anafartalar. However, in recent years, the municipalities and TOKI's urban transformation projects have been deceived and the expansion of shanty towns has been prevented. This decrease in slum settlement also reduced the risk of potential sociocultural polarization.

Urbanization problems prevent the development of local urbanism and constitute an obstacle for individuals to feel belonging to the city. These problems, on the other hand, cause the residents of the city to be dissatisfied with the city and create a risk of sociocultural polarization. Denizli grew rapidly after the 1980s, with immigration from the surrounding provinces and districts. The inadequacy of infrastructure and housing in Denizli, which is unprepared against the rapid migration wave, triggered irregular settlement. On the other hand, economic development and enrichment have led to the construction of luxury housing, which has resulted in the growth of regional differences in the city. The major reason why this difference in the spatial plane does not lead to polarization or conflict at the social dimension is that the wave of migration is predominantly composed of the same socio-cultural origins and surrounding districts. However, there is a serious risk of socio-cultural polarization especially with immigrants coming from the southeastern part of Turkey and settling in the vicinity of the Sevindik neighborhood. This polarization, especially due to the terror problem of PKK, carries the risk of further deepening.

Another obstacle to urbanization in Denizli is that the economic shrinkage in the textile sector, which has lived in recent years, leads to unemployment. As a matter of fact, in 2011, Denizli was one of the cities where the current population decreased for the first time. It is clear that sociocultural polarization will increase if this shrinking of the textile sector can not be compensated in a certain way. In addition, this progress will harm the consciousness of local identity in Denizli and the process of urbanization.

Despite the little increase in unemployment, there is a high rate of satisfaction in Denizli, where social polarization and crime rates are not very high. The basis of this success is the successful urbanization policy implementations of the Denizli Metropolitan Municipality in recent years. Denizli Metropolitan Municipality, which makes important investments in infrastructure as well as superstructure in the frame of urbanization policy, has also reduced the exclusion of the slum areas with the urban transformation projects at the same time. In the same way, marketplaces, sports fields, parks and green areas have tried to increase the belonging of the residents of the slum district neighborhoods and they succeeded in this.

However, the business contraction experienced in the textile sector and the unemployment it creates are the biggest obstacles in front of the social urbanization as well as the potential for creating social polarization. As we can see from the survey, the satisfaction rates of working individuals are very high. The most important thing to do at this point is to introduce new investments and incentives that will prevent unemployment. As a matter of fact, according to the strategy decision taken on this issue, the government and the municipality are trying to increase the tourism potential of Denizli. In this context, the ruins of Pamukkale have been reorganized and it has been decided to build a large museum complex in which monuments of Denizli can be exhibited.

One of the obstacles to urbanization, according to my research, is the lack of participation seen in the issues that concern the city. When it is expressed that the problems related to the city or the neighborhood will move together, participation decreases suddenly in case of taking initiative. At this point, it is especially necessary for the municipality to enact governance mechanisms that will inform the public or involve them in decision-making mechanisms. It is important that mechanisms such as city councils, neighborhood councils be supported and encouraged. It is evident that people who are somehow included in the decision-making process will have more possession of the city and thus social urbanization will increase.

References:

- Arlı, Alim (2009). *Sosyal Mekânda Farklılaşma: Denizli'de Kırsal/Kentsel Dönüşüm (1990–2000)*, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü Sosyoloji Anabilim Dalı, Doktora Tezi, İstanbul
- Çiçek, Zuhâl (2010). *Kentsel Dönüşüm ve Kentsel Yoksulluk: Denizli Örneği*, Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi, Genel Sosyoloji ve Metodoloji Ana Bilim Dalı Sosyoloji Bilim Dalı, Denizli
- Elmacı, Süleyman ve Bekdemir, Ünsal. (2008). *Ortaçağ İslam Aleminde Şehir: İbn Haldun'un Şehre Bakışı*, Doğu Coğrafya Dergisi, Sayı:19

- Ibn Haldun (1990). *Mukaddime I, II, III*, (Çeviren: Zakir Kadiri Ugan), M.E.B. Yayınları, İstanbul.
- Karatepe, Şükrü. (2005). *Şehirler Sahibini Arıyor*, 'İslam Geleneğinden Günümüze Şehir Hayatı ve Yerel Yönetimler' içinde, (Editör: Prof. Dr. Vecdi Akyüz), Cilt 2, İlke Yayıncılık, İstanbul
- Keleş, Ruşen (2006). *Kentleşme Politikası*, İmge Kitabevi Yayınları, Ankara
- Keleş, Ruşen (2013). *Kentleşme Politikası*, İmge Kitabevi Yayınları, Ankara
- Pirenne, Henri. (1990). *Ortaçağ Kentleri*, (Çeviren: Ş. Karadeniz), İletişim yayınları, İstanbul
- Özer, İnan (1983). *Toplumsal Değişme ve Kentsel Olgular*, Cumhuriyet Üniversitesi Sosyal Bilimler Fakültesi Dergisi, Sayı: 1
- Özer, İnan (2004). *Kentleşme Kentleşme ve Kentsel Değişme*, Bursa: Ekin Kitabevi.
- Öztürk, Mustafa. (2009). *Tarihî Seyrin Şehirlerin Fizikî ve Sosyal Yapısına Etkileri Üzerine Bazı Tespitler*, Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, Prof. Dr. Reşat Genç Armağanı Özel Sayı I, Ankara, Temmuz 2009
- Sağlam, Serdar (2006). Türkiye'de İç Göç Olgusu ve Kentleşme, Hacettepe Üniversitesi Türkiyat Araştırmaları Enstitüsü Dergisi, Sayı: 5, Güz 2006
- Torlak, S.Evinç ve Polat, Ferihan (2006). *Kentleşme Sürecinde Kimlik Farklılaşması Açısından Denizli'deki İki Mahallenin Karşılaştırılması Analizi*, Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 8/2
- Torlak, S.Evinç, Çeliktürk Tanzer, Kulaç Onur, Arslan R. (2016). *A Medieval Islamic City: Case of Cordoba*, Journal of Life Economics, Sayı:8
- Türkiye İstatistik Kurumu (2011). *Bölgesel Göstergeler TR32 Aydın, Denizli, Muğla 2010*, Türkiye İstatistik Kurumu Matbaası, Ankara
- Yalçın, Cemal (2010). *Türkiye'de Kentleşme Sorunları Üzerine Bir Tartışma*, Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, Cilt 28, Sayı 1

Natural Disaster and Vulnerability to Trafficking of Women and Girls in India

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Abstract

Disasters seldom restrain to administrative and political boundaries and derecognizes international borders. These borders become the most vulnerable areas where laws are practically inapplicable uniformly across the international borders. Women moving out in search of livelihood options become easy prey to trafficking for commercial sexual exploitation and are also devoid of any knowledge on safe migration policies. India, Bangladesh and Nepal in South Asia have been identified as the major sources from where men, women and children get trafficked for the purposes of involuntary domestic servitude, bondage of debt, camel jockey, commercial sexual exploitation and so on. Human trafficking among the women and girls has been one of the largest in terms of magnitude and poses the greatest challenge more so when a disaster strikes!

The present paper attempts to identify the vulnerability factors within the perspective of a natural disaster particularly for women and girls who fall prey to being trafficked from their home. The study is based on secondary sources of information that identify regions which are frequently hit by disaster and compares them to those regions which have a high potential for being trafficked. The study relies and relates with selected micro level field visits in some of these areas which are of high vulnerability. It highlights certain factors that have contributed significantly during a disaster such as the age specific sex ratio and cultural components within the hazard prone districts.

Keywords: Women and Disaster Risk Reduction, Trafficking of Women, Vulnerability to Trafficking, Disaster hit regions, Commercial Sexual exploitation

Context

It need not be emphasized that regions that are in the grip of extreme poverty, human rights violation, conflict ridden and war torn have enhanced

the risk and vulnerability of women and children to trafficking. The world today is a witness to the mass exodus of people migrating from one place to another as a result of a conflict, war, natural calamity, ethnic cleansing, terrorism and insurgency or simply moving in search of livelihood options. Human trafficking has been an issue of concern whenever disaster strikes. Disasters never restricts itself to administrative boundaries or recognize any international borders. These areas therefore become the most vulnerable from the perspective of different laws that exist across the borders. The inapplicability of laws thus force the policies to remain an unfinished agenda. So a victim of disaster hit region becomes even more vulnerable if she happens to be a women or a girl. She becomes an easy prey for the traffickers who are quick to lure these innocent women into their trap. When a disaster hits, women move out in search of alternative livelihood options often end up crossing the international borders. The trafficker's network is quick to nab these innocent hapless women looking out for a livelihood in order to survive. The slender collection of laws which are difficult to implement across the countries and international borders are often unable to protect these cross border victims. Micro level field visits show that most of the victims of human trafficking are often lured or abducted from one country or from their homes and subsequently forced into prostitution, bonded labourer in agricultural and manufacturing settings, domestic services, organ trade and other trans-national crimes and servitude in another country or a place where the victims are complete alien to. Human trafficking has been prevalent in areas which reel under abject poverty, food insecurity, insensitive social and cultural milieu and displacements due to natural and man-made disasters. Disaster only doubles the hardships faced. Although human trafficking can take different forms in different regions around the world, but most human trafficking cases follow a similar pattern, i.e., traffickers use acquaintances or false advertisements to recruit men, women, and children in or near their homes and then transfer them to and exploit them in another city, region or country (Palermo Convention, 2000).

South Asia happens to be a home to the second largest number of internationally trafficked persons (UNFPA, 2006). India, Bangladesh and Nepal have been identified as the major source countries for women and children that are trafficked for the purposes of sexual exploitation, involuntary domestic servitude and bondage of debt. South Asian region in particular has witnessed exploitation of women and girls under the garb of fraudulent marriages, false job promises, culture, religious beliefs and deceit. They become even more vulnerable in a situation as a result of a disaster which snatches away their land, house and the few livelihood options that were prevalent in their places of residence forcing them to move out into unknown destinations.

The present paper attempts to identify the vulnerability to trafficking among women and girls in India for sexual exploitation, especially during a natural calamity that hits their region of livelihood options. The study is based mainly on secondary sources of information, and relies upon field visits undertaken in some of the sample districts of disaster hit regions for authentication of the secondary sources of information vis-a-vis the micro level data. Although, there are sufficient studies to establish that women are more vulnerable to disasters; there is not sufficient research to establish that it is during disasters that the risk of human trafficking reaches its peak. When disaster renders people shelter less the women in particular become vulnerable to all kinds of exploitation including trafficking which becomes a business for people who are involved in this illegal trade.

Many such studies remain unattended in the absence of a law, which is the first and foremost factor in providing a preventive measure in risk reduction process towards the disaster related victims who have been forced to leave their hearth and home in search of livelihood options. The purpose of any law is manifold. It establishes and maintains the order, resolves disputes if there are any and finally it protects the rights and liberties of people. The disaster law or more appropriately called as “disaster response law” also aims for serving these purposes. It aims for mitigation of disasters, protection and rescue of victims and rehabilitation of the victims. A disaster response law framework consists of international treaties, municipal laws of countries which provide guidelines for mitigation, protection, rescue and rehabilitation work. In India, the “Disaster Management Act” forms the bulwark of the disaster response law. In countries where gender discrimination is tolerated, women and girls are particularly vulnerable to natural hazards. Not only is the percentage of women and girls who die in such countries higher, but the incidence of gender-based violence—including rape, human trafficking and domestic abuse—is also known to increase exponentially during and after disasters (UNDP/BCPR:2010). Their extreme vulnerability can be made from the fact that during Tsunami in the Karakai region of Puducherry, adult female fatalities outnumbered adult male fatalities nearly 2:1 (WHO,2013). A pioneering report developed by the Lawyers Collective (2003) supported by UNIFEM examines the role and function of law enforcement and the adjudication machinery in dealing with the problem of trafficking for commercial sexual exploitation (CSE), the lacunae specific to each component namely, the police, the prosecution, the judiciary and the correctional institutions, those that are responsible for the ineffective functioning of the criminal justice system (CJS) and suggest that changes can be made to improve the functioning of various components of the CJS in dealing with the issue. The report presents vast data from two metropolitan cities of India, namely, Mumbai and Delhi, which hosts a

significant proportion of the victims for sexual exploitation. The respondents include police, advocates, officials of the state homes, and analysis of reported cases under ITP Act in Kamla Nagar Police station, New Delhi and Nagpada police station, Mumbai. The report presents the profile of law enforcement machinery in the two cities for CSE cases registered under the ITP Act. It analyses the procedures for reporting CSE cases and sections of ITP act used for booking the cases and highlights excessive use of section 8 and 20 of ITP act which criminalizes the victims. The report suggests reasons for acquittals of criminals like unworthy witnesses, lack of collaboration, discrepancy in witnesses, procedural problems, absence of women officers. It also highlights the demographic, social, economic and spatial characteristics of victims staying in government shelter homes and the innumerable problems faced by the victims in these homes including poor living conditions and other associated survival coping mechanisms. The research report suggested invaluable recommendations for improving the law enforcement machinery especially the effective training for police and prosecution. However, an interview with the Lawyers Collective stated that the implementation of the law has had a ballooning impact on the culprits. When one puts pressure in nabbing a culprit, the pressure simply flows elsewhere where the laws are lenient thus resulting in a no impact. This impacts in achieving a zero or a miniscule conviction rate.

Hyogo Framework for Action

Gender is a cross-cutting principle of the Hyogo Framework for Action 2000-2015: on Building Resilience of Nations and Communities to Disaster, which states that: *“A gender perspective should be integrated into all disaster risk management policies, plans and decision making processes, including those related to risk assessment, early warning, information management and education and training.”* In addition, the Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction (2009), adopted following the twenty-third special session of the General Assembly, entitled *“Women 2000: Gender equality, development and peace for the twenty-first century,”* calls for gender-sensitive approaches to disaster prevention, mitigation and recovery strategies and natural disaster assistance.

Gender priorities were integrated into the report of the World Conference on Disaster Reduction, January 2005 in Kobe, Japan and the Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters: now abbreviated to HFA (HyogoFramework for Action). In the opening section, the HFA states that a gender perspective should be *“integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training”* (HFA,

2005). However, while it has been suggested that this provides the ‘most explicit reference to gender of any other international policy frameworks for DRR’ (UNISDR, 2009) it is not without limitations. Most importantly its call to integrate gender into all areas of DRR did not result in gender being integrated even into the HFA itself, and in the remainder of the document gender/women are mentioned only twice: once when discussing early warning systems and once when discussing the need to ensure equal access to appropriate training and educational opportunities. This suggests a lack of real commitment to adopting a gender perspective that has not changed much in the intervening years.

The third edition of the United Nations Global Assessment Report on Disaster Risk Reduction: From Shared Risk to Shared Value: The Business Case for Disaster Risk Reduction (UNISDR,2013) makes scant mention of gender matters; in fact the word ‘gender’ is not mentioned at all; neither is ‘girl’; and ‘women’ is mentioned three times in 288 pages. The three occurrences of ‘women’ are all in the same place: They concern the after effects of the Great East Japan Earthquake of 2011 in which employment for women recovered more slowly than for men, due to the slow recovery of the female-dominated food processing sector, while the many new employment opportunities in the construction sector were mainly for men. This is disappointing considering the 2011 Global Assessment Report (UNISDR, 2011) had previously noted that gender was still not being adequately addressed in disaster risk reduction.

However, one is unable to trace any imprints of these guidelines when it comes to law making. The disaster management laws have turned a blind eye to the specific needs of women and especially women in agriculture. In India, the Disaster Management Act’2005 do not even mention the word “women” or “gender”. There are no gender specific post-disaster studies and the special needs of women are not highlighted. While gender mainstreaming has entered the disaster rhetoric, gender is far from mainstreamed in policies and gender is still not part of mainstream disaster risk reduction and response practice (Bradshaw & Fordham, 2013).

Human trafficking is usually exacerbated by the lack of legal assistance services available to victims and by the lack of awareness concerning the existing legal protection available to victims of trafficking. Victims and witnesses of human trafficking are often not aware of the mechanisms available to obtain justice and redress. On the other hand, law enforcement officials and judicial organs may not have adequate resources and training to ensure full victim protection. The issue of trafficking and displacements caused by disasters is closely related. It is the displacement caused by natural disasters which result into massive trafficking. It has been estimated by WHO that women and children are particularly affected by

disasters, accounting for more than seventy five percent of displaced persons..

A composite disaster response law is still trying to be developed which addresses the problem of trafficking during disasters. The Disaster Management Act, 2005 in India neither mentions anything about special needs of women nor addresses the problem of trafficking during disasters. A well meaning disaster law shall address the problem of trafficking and shall also aim for its control. In case of disasters it is the positive duty of the State to protect its citizens from the disasters and also during and post disasters. Thus there exists a right against disasters in the citizens. Since the present paper focusses on the problem of trafficking the scope of the disaster response law could be expanded to include the anti trafficking laws and the guidelines for the displaced persons for the purpose of providing an unbreakable shield against the traffickers.

Factors of Vulnerability post Disaster

Disasters do not occur in vacuum. Disasters affect everyone differently depending upon the different vulnerabilities. The different vulnerabilities are shaped by existing discriminatory socio- economic conditions. Disasters result from the combined factors of natural hazards and people's vulnerabilities. These vulnerabilities take the form of physical exposure, socioeconomic vulnerability, and limited capacity to reduce vulnerability and disaster risk. Capacities to reduce vulnerabilities and risks arise out of a complex mix of factors, which include poverty, social class, age group, ethnicity and gender relations. Women are made more vulnerable to disasters through their socially constructed roles. As Elaine Enarson (2012) states “..gender shapes the social worlds within which natural events occur.” Women are tied down by the gender roles ascribed to them by the society. They are responsible for the children and elderly people at home and are doubly burdened. Women themselves being vulnerable are left destitute in case of destruction of their homes and become far more vulnerable to hazards. Many families are forced to relocate to shelters. Inadequate facilities for simple daily tasks such as cooking means that women's domestic burden increases at the same time as her economic burden, leaving her less freedom and mobility to look for alternative sources of income. They are less informed and do not possess skills (including literacy) which act as life saving mechanisms in times of disasters.

Designation of 'November 25' in 1999 as UN International Day for the Elimination of Violence against Women was of major significance. The UN adopted in the 23rd Special Session of General Assembly a document entitled 'Women 2000: gender quality, development and peace for the

twenty-first century'. It clearly spelt out the action needed to address the problem of violence against women especially human trafficking of women and children. The United Nations Convention against Transnational Organized Crime (UNTOC) was adopted in November 2000, along with two optional protocols by which countries would undertake in-depth measures to combat smuggling of migrants and the trafficking in women and children. The protocol to Prevent, Suppress and Punish Trafficking in Persons, especially women and children is the first attempt to address trafficking in persons in a comprehensive manner based on the expanded understanding of the term 'trafficking' and its multiple dimensions. The protocol applies to the prevention and combating of trafficking as well as to the protection of and assistance for victims and cooperation among state parties.

The passing of the 'Victims of Trafficking and Violence Protection Act of 2000' by the US Senate was another important development in the global process designed to address human trafficking. The act provided a good assessment framework for multiple agencies to review progress on anti-trafficking initiatives. The Trafficking in Persons (TIP) report, brought out by the Government of United States of America every year is based on the assessment of government and civil society action in each country to combat trafficking. It places different countries in different tiers depending on the action their governments have taken to combat the problem of human trafficking. "UN Millennium Declaration in 2000, resolving to combat all forms of violence against women and the subsequent 2005 World Summit Outcome; the first-ever 2004 Security Council Open Debate devoted to sexual and gender-based violence in conflict and post-conflict situations (in follow up to Resolution 1325), and the momentous Security Council Resolution 1820 adopted in June 2008, establishing sexual violence as a priority global security concern have provided significant inputs for UNIFEM's role towards developing appropriate strategies for reducing human trafficking especially for women and children". Trafficking is the process of recruiting, contracting, procuring or hiring a person for CSE. Therefore, trafficking is a process and CSE is the result. The 'demand' in CSE generates, promotes and perpetuates trafficking which is a vicious circle. The victims of trafficking during disasters are not pushed into CSE as soon as they are trafficked. Thus, as a matter of fact, ITPA proves to be quite ineffective for curbing trafficking during disasters. The ITPA envisages only trafficking for CSE. Commercial activity need not be in a brothel, but could also occur in places including a residential dwelling, a vehicle, etc. Therefore a police officer who is acting under ITPA has powers to take steps in all such situations where trafficking leads to or is likely to lead to CSE in

any form, including those under the facade of massage parlours, bar tending, 'tourist circuit', 'escort services', 'friendship clubs', etc (Nair:2007, 12).

The ITPA needs to be amended for making the act of trafficking per se punishable. The pushing of victims into trafficking should not be a pre requisite for applying for the prevention of trafficking. Moreover, ITPA should be made a self sufficient law and made in link with the Disaster Management Act'2005 (DMA). A separate chapter on "Trafficking during Disasters" can be added in ITPA and can establish a machinery of its own which is independent of the local police of the area where the disaster occurs, for example it can link itself with the National Disaster Relief Force (NDRF) under the DMA. The victims of trafficking during disasters should not be prosecuted under ITPA which is what ITPA actually do. The role of NDRF should be extended to preventing trafficking during disasters and the wrong doers should be harshly punished.

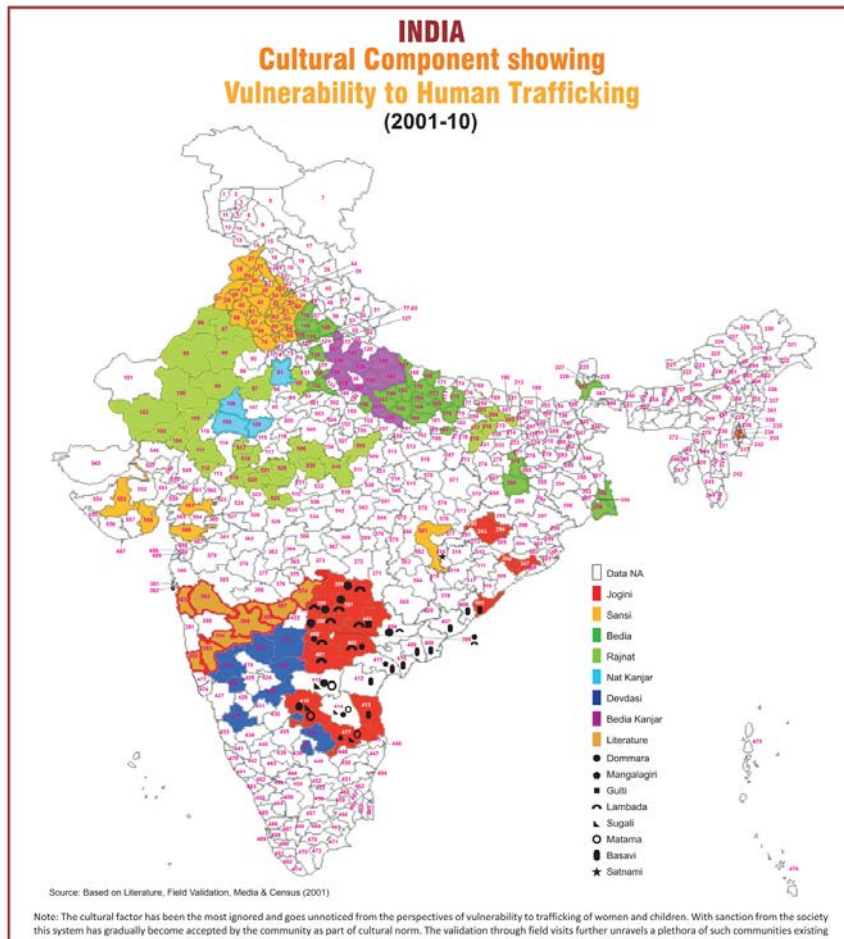
It is interesting to study three major factors of vulnerability that affect women and girls most as a result of disaster. Each one of these have been discussed below.

Cultural Component

It need not be mentioned that when a disaster hits it is the women who are the worst sufferers and take upon themselves the responsibility to carry forward the society, family and children in the name of legacy of protecting their culture and tradition on behalf of the whole community. So at such times the cultural factor becomes even more influential in taking the women victims towards being sexually exploited in order to make a living. It is for the first time that the Census of India has documented few of these communities and their distribution pattern in space. Field visits further unravelled a plethora of such communities that exist today. The Rajnats, Bedia, Dommara, Lambada, Joigini, Satnami, Kanjar, Sansui, and the list goes on. Culture and tradition thus at times plays a dominant role in the lives of the women in the disaster hit areas.

The cultural factor perhaps is the one which has been ignored and goes unnoticed from the perspectives of vulnerability to trafficking of women and children. With sanction from the society this system has become accepted by the community as part of the cultural norm. The traditional cultural practice of dedication of girls to gods and goddesses in temples has been in existence for ages. As these norms gained social sanction, prostitution as a system became institutionalized. After an initial persuasion into the profession, girls either become the property of wealthy men or a wage earner for her family (Dutta,2001). Though, many states have banned this practice, various reports indicate that this dedication still continue in the form of *Jogini*, *Devadasi* and *Basavi* in Orissa, Andhra Pradesh, Maharashtra

and Karnataka. In some other communities the practice of prostitution has been accepted as traditional and given the name of ‘*Parivarik Dhandha*’ (traditional family occupation) like that practised by some of the communities such as the *Bedia*, *Rajnats*, *Kolta*, *Banchra*, *Mahar*, *Matang* and *Sansi*. These are socially sanctioned and accepted. Map number I, depicts the distribution of the Vulnerable population in terms of cultural context.



Map No I

The *Bedia* boys marry *Kanjar* or *Sansi* communities. They protect their daughters in law keeping them indoors under ‘*pardah*’. They believe that their *Bahus* are the pride of their families. However the same attitude and sentiments are not extended to their daughters(Pandey). They are pushed into the flesh trade immediately after puberty. This practice is socially sanctioned. Rituals symbolizing womanhood are performed. Nearly 95 percent of these communities belong to scheduled caste and the scheduled

tribes. “India is so far the only land where women / girls are worshipped as well as marketed by their own parents and brothers as a commodity in the name of caste and suffer inequalities and shame for no fault on their part” (Sanlaap,2008) A disaster hit region promotes such a culture even more as there are no livelihood options left for the women. The society and family justify such occupations in the name of culture and traditions.

Age Specific Sex Ratio (10-24 yrs)

The combination of a situation where disaster hits a place having a strong cultural factor especially for the age group of 10-24 is a deadly combination. This fact can be found from the secondary sources of information. The Census of India 2001, provides the data on sex ratio under various age group. The map shows the districts where the age group 10 to 24 years are conspicuous by their absence. The number of girls and women who have gone missing belonging to this age group is huge. Several studies show the importance of such an indicator for asserting the age group who are the most vulnerable.

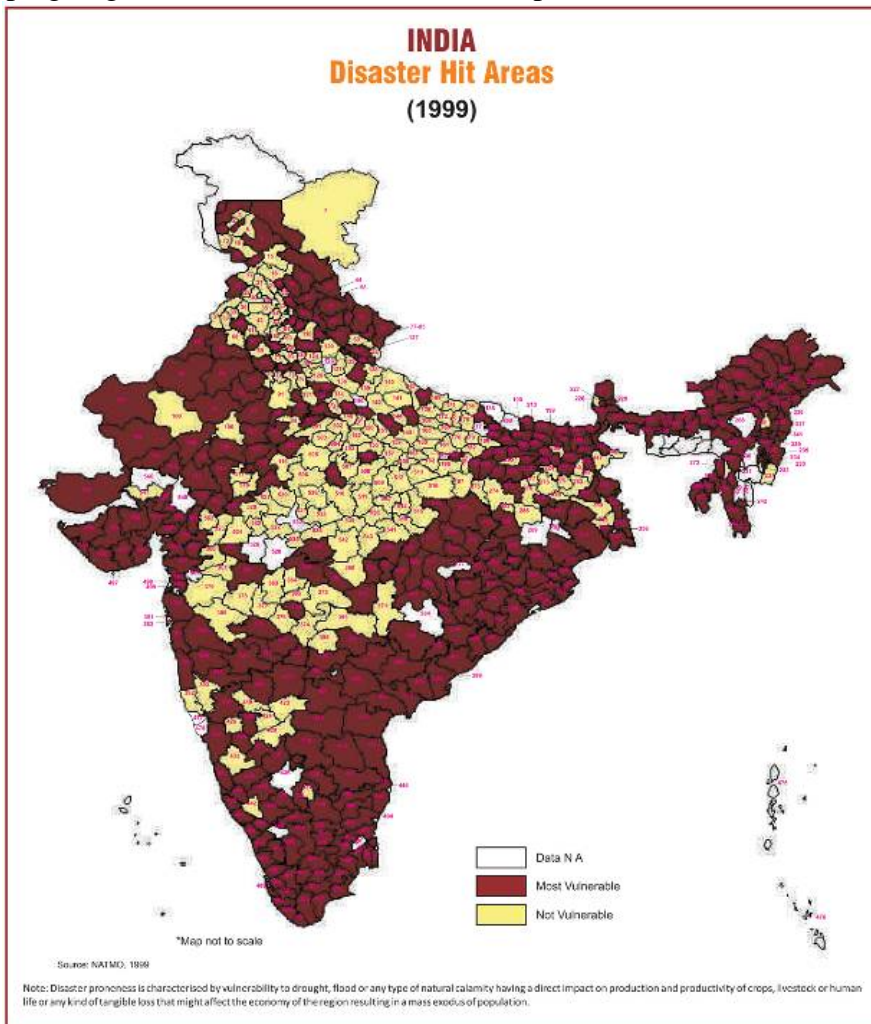
This fact was authenticated during the field visit. Some the women interviewed at the brothels of Sonagachi in Kolkata belonged to Murshidabad in North Bengal. They stated that floods were a regular feature in their region every year forcing them to move out. Women and girls thus end up in the brothels. The women who arrive make sure to bring with them another one in the subsequent years. Similarly other districts from Bihar and Uttar Pradesh also displayed a similar picture. Data from Census of India clearly displays this phenomena.

Hazard Prone Vulnerable Districts

Disaster proneness is characterised by vulnerability to drought, flood or any type of natural calamity, which has a direct impact on production and productivity of crops, livestock or human life or any kind of tangible loss that might affect the economy of the region resulting in a mass exodus of population. Disasters lead to a breakdown of social institutions, making food securing and humanitarian supplies ‘difficult’. This leaves women and children ‘vulnerable to kidnapping, sexual exploitation and trafficking’. The 2008 devastating floods in Bihar had left children vulnerable to trafficking and many girls ended up being ‘sold as brides’ (Indo-Asian News, 2009). Natural hazards like floods, droughts, earthquakes, typhoons, enhance displacements and forced migration. The hazard prone areas create conducive conditions for such large scale displacements year after year. The Kosi belt of Bihar and Brahmaputra and Ganga flood plain areas in Assam, Meghalaya and West Bengal are inundated year after year due to floods displacing a large number of people. Similarly drought situations in Central

parts of India, Rajasthan, Gujarat also force people to look for outside support. The coastal belts area also prone to inundation of saline water due to cleaving.

Such a indicator includes all the hazard (natural) prone areas of the country which have been hit by natural calamity such as drought, floods, earthquake, etc. Owing to natural disasters such as droughts, floods and hailstorms there is a loss of crop, cattle and property leading to the fall in family income and forcing the population to migrate. The present study has utilized the data created on the map prepared by the National Atlas Thematic Mapping Organization (NATMO) (Refer Map No II).



Map No II

There have been two distinction made between those that are hit by a disaster and those which are not. The type of hazard that had been considered

for the study were only natural hazards and does not consider the conflict ridden zones and riot hit regions. This indicator indicates a positive correlation showing the higher the value the higher is the vulnerability. These areas include most of the coastal plains, Andhra Pradesh, Kerala, Odisha, Assam, Bihar, Chattisgarh, and parts of Gujarat and Himachal Pradesh.

Conclusion

Among the major reasons that contribute towards creating conducive conditions for vulnerability to human trafficking, are abject poverty, landlessness, lack of income opportunities, economic exploitation of labour, food insecurity, insensitive social and cultural milieu and most importantly mass scale displacements due to natural and man-made disasters. Disasters leading to mass displacement of vulnerable population year after year pose as the greatest challenge with hundreds of missing people, particularly women and children, in the flood hit areas. This is extremely challenging not only for the state government but also for the non-governmental organisations involved in the relief and rehabilitation.

Preventive measure is the key to overcome the widespread net of human trafficking. A continuous on-going effort is necessary to strengthen and create awareness at the grassroots level. A close coordination between societies, parents' organization, women's group, local-self government machinery, police, mass media, civil society and non-governmental organization is warranted to keep traffickers at bay. Such coordination has worked wonders in several regions of Nepal-India and Bangladesh-India borders. The need of the hour is to strengthen such co-ordination mechanisms at the identified vulnerable areas to create awareness related to safe migration procedure requirements (like seeking identity proofs of persons offering jobs, job offer letters and finding out the whereabouts of prospective grooms). This method has been found to be extremely useful in creating the right kind of awareness in comparison to other methods as traffickers try to avoid luring an awakened community. Involvement of adolescent boys and girls in creating awareness on safe migration has been effective to identify fraudulent marriages as vulnerable groups usually share their anxiety with their peer groups in villages. Several instances show where girls reported to their teachers in schools about scrupulous marriages of their friends that were being formalized. Teachers in turn convince the parents to seek proper identification and whereabouts of the prospective groom before marriage can be solemnized. Such actions have saved several cases of human trafficking.

These collaboration can be forged ahead with other stakeholders and building of capacities for effective awareness on safe migration with NGO

partners in the local areas, local self governments (PRI), community/religious leaders and women's groups create the necessary environment for safe migration. This necessitates the development of tool kits, action guides and publicity material on safe migration procedures and consequences of human trafficking to create appropriate awareness and knowledge sharing mechanisms. Facilitating networking among NGOs for learning and sharing information and developing mechanisms for joint collaborative monitoring in the border areas, vulnerable districts and states would go a long way to generate knowledge against human trafficking.

Enforcing and strengthening of community initiatives like maintaining of social registers for all marriages (with unknown partners and community members) will create the necessary security environment against scrupulous and fraudulent marriages.

Initiatives of building capacities and support grass-root level NGOs to enable them to link government initiatives on poverty alleviation programmes like MGNREGA, Swadhar, Ujjawala to help providing sustainable livelihood opportunities and access the due entitlements from the government programme.

These government schemes are an innovative approach in order to address the requirements of women under difficult circumstances. The National Commission for Women should support in establishing the community referral mechanisms such as providing short stay home facilities along with counselling by trained practitioners to the trafficked victims. Regular imparting of basic knowledge skills on possible methods being adopted by traffickers, legal entitlements, etc., will ensure that the anti trafficking squad remain not only informed but vigilant as well. Such initiatives will contribute in the smooth reintegration of the survivor victims into the society.

Recommendations

- *Dissemination of reports with concerned ministries such as the Ministry of Women and Child Development, Ministry of Social Welfare & Empowerment, Ministry of Home Affairs and several others, so that preventive measures are imbibed into their ongoing schemes and inter ministerial policies be made to tackle the problem in the right perspective.*
- *There is a need for greater convergence of the ongoing schemes in the various ministries of the vulnerable districts. It is important that the capacity build of governance institutions be initiated in order to bring together all existing programme for achieving a greater impact on people's lives. It is recommended that courses be introduced in training institutions such as the 'Lal Bahadur Shastri National Academy of Administration'*

(LBSNAA), Mussoorie and the 'National Institute of Rural Development' (NIRD).

- *Initiatives must be developed to build capacity and support grass root level NGOs for linking government initiatives on poverty alleviation programmes like MGNREGA, Swadhar, Ujjawala, etc for addressing the needs of women under difficult circumstances and in providing alternative sustainable livelihood opportunities during a disaster.*
- *Local village level committees to be constituted for regular interaction with young girls and other women as a preparation to cope up with any calamity.*
- *Women NGOs to be conducting constant training of women for awareness and self-rescue preparedness.*
- *A strong infrastructure needs to be set up in the most vulnerable districts for disaster preparedness. The Ministry of Women and Child Development in collaboration with the Ministry of Home Affairs, establish community referral mechanisms such as short stay home facilities along with counselling to the trafficked victims by trained practitioners. Such initiatives will go a long way in the smooth reintegration of the survivor victims during a post disaster scenario.*

References:

- Alex, Jacob.B.2006. *Disaster Management: Towards a Legal Framework*. <http://www.iipa.org.in/common/pdf/12.pdf> accessed on 10 July'2015
- Blaikie, P., T. Cannon, I. Davis, and B. Wisner, 1994. *At Risk: Natural Hazards, People's Vulnerability and Disasters*, London: Routledge.
- Bradshaw, Sarah & Maureen Fordham .2013. *Women, Girls & Disasters: A Review forDFsID*; (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/236656/women-girls-disasters.pdf accessed on 5 March'2015)
- Dutta, Mondira. 2001. *Evaluation Study on 'Devadasis - Mainstreaming & Empowerment'* (A project implemented by MYRADA, Bangalore, Karnataka), NOVIB
- Dutta Mondira. 'Mapping Vulnerability to Trafficking of Women and Children in India', sponsored by UN Women and the National Commission for Women, March 2011, UN Women, New Delhi.
- Enarson, Elaine.2012. *Women Confronting Natural Disaster: From Vulnerability to Resilience*; USA: Lynne Rienner Publishers
- Ferris, Elizabeth. 2013. *In Disaster Risk Management, A Gender-Sensitive Approach is Smart*. (<http://www.brookings.edu/blogs/up-front/posts/2013/04/20-natural-disasters-2012-risk-management-women-gender> accessed on 10 March'2015)

- Fiorito, Luca & Massimiliano Vatiéro. 2009. *Beyond Legal Relations Wesley Newcomb Hohfeld's Influence on American Institutionalism*; <http://www.econpol.unisi.it/quaderni/582.pdf> accessed on 13 July'2015
- Frenkel, Brian E. 2014. *The Judiciary & disaster response: the case of Jammu & Kashmir*; 28 November'2014; (<http://www.ifrc.org/en/what-we-do/disaster-law/news/asia-pacific/judicial-action-in-disaster-response-the-case-of-jammu--kashmir-before-the-indian-supreme-court-67660/> accessed on 11 July' 2015)
- Hines, Revathi I. 2007. *Natural Disasters and Gender Inequalities: The 2004 Tsunami and the Case of India*. Gender & Class. Vol.14, No.1/2 (2007); pp.60-68; accessed on 26/07/2014
- Indo-Asian News Service (IANS): 19th August, 2009
- McLoughlin, Claire. 2013. *Violence against Women and Girls in Haiti*, GSDRC, (<http://www.gsdr.org/publications/violence-against-women-and-girls-in-haiti/> accessed on 22 December'2015)
- Nair, P.M. 2007. *Trafficking Women & Children for Trafficking- A Handbook for Law Enforcement Agencies in India*, UNODC, New Delhi, (https://www.unodc.org/documents/humantrafficking/India_Training_material/Handbook_for_Law_Enforcement_Agencies_in_India.pdf accessed on 22 December'2015)
- Palermo Convention. 2000. *Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime*, (<https://treaties.un.org/doc/Publication/MTDSG/.../XVIII-12-a.en.pdf> accessed on 22 December'2015)
- Pandey S. P. *A Study of Children Dependent on Prostitutes in Selected Areas of Uttar Pradesh*, Pandit Govind Ballabh Pant Institute of Studies in Rural Development, Lucknow, Sponsored by Department of Women and Child Development, Government of India
- Pincha, Chaman. 2008. *Indian Ocean Tsunami Through the Gender Lens- Insights from Tamil Nadu, India*", Mumbai:Earthworm Books
- Saanlap, 2008. *Withering Flowers – A Criminal Tradition in India; A Study on Caste Based Prostitution among Bedia and Banchhara Community in Madhya Pradesh*
- Takahashi, Hiroaki. 2015. *Japan and Quake Preparedness*; 30 April'2015; (<http://www.thehindu.com/opinion/lead/japan-and-quake-preparedness/article7155062.ece> accessed on 12 July'2015)
- Thakkar, Himanshu. 2014. *Chronicles of tragedy foretold*; 18 September'2014; (<http://www.thehindu.com/opinion/op-ed/jammu-and-kashmir-floods-chronicle-of-a-tragedy-foretold/article6420015.ece> accessed on 12 July'2015)

The Beijing Agenda for Global Action on Gender-Sensitive Disaster Risk Reduction (2009);

(www.unisdr.org/files/8024_8961BeijingAgendafinal22Apr091.doc accessed on 3 March'2015)

Hyogo Framework for Action 2005-2015; (www.unisdr.org/2005/wcdr/.../Hyogo-framework-for-action-english.pdf accessed on 3 March'2015)

UNDP, Gender and Disasters, BCRD, (<http://www.undp.org/content/dam/undp/library/crisis%20prevention/disaster/7Disaster%20Risk%20Reduction%20-%20Gender.pdf> accessed on 20 March'2015-07-01)

UNDP. 2004. Reducing Disaster Risk: A Challenge for Development. New York: United Nations Development Programme. (http://www.preventionweb.net/files/1096_rdrenglish.pdf accessed on 9 March'2015-07-01)

UNFPA. 2006. *State of the World Population Report*, (<http://www.unfpa.org/sites/default/files/pub-pdf/sowp06-en.pdf> accessed on 22 December'2015)

UNISDR (2009), 'Making disaster risk reduction gender-sensitive: Policy and practical guidelines', UNISDR, UNDP and IUCN. Geneva, Switzerland, June 2009, (http://www.preventionweb.net/files/9922_MakingDisasterRiskReductionGenderSe.pdf accessed on 3 March'2015)

United Nations Global Assessment Report on Disaster Risk Reduction: From Shared Risk to Shared Value: The Business Case for Disaster Risk Reduction (UNISDR 2013) (<http://www.zaragoza.es/contenidos/medioambiente/onu/1005-eng.pdf> accessed on 20 March'2015)

GIS Modeling of Site-Specific Fertilization Requirements

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Abstract

Application of Geographic Informatic System (GIS) in land-planning management has been well known among researchers for over 40 years, and for site-specific fertilization, it started to be recognized in the early 90s. GIS modeling in agriculture helps to identify site-specific distribution of a certain characteristics, and by creating theme maps associated with a database, a visual display of numerical information for a certain field site can be created. Present study of GIS modeling of sustainable crop selection and optimization of fertilization used the database from AGRI-CONTO-CLEEN project and decision making support systems (DSS) based on agronomists expertise. The aim of our study was to determine and visually display soil properties, needs for liming and fertilization recommendations on two family farms (Vinogradci and Berak). The soils of two investigated farms differ significantly in soil properties as well as in needs for nutrient application. GIS modeling identified liming requirement only on Vinogradci site. The same site was characterized by more intensive fertilization requirement, indicating lower soil quality and lower suitability for agricultural production at Vinogradci site. Proposed fertilizing recommendations considered application of farm yard manure to decrease the application of mineral fertilizers and cost of fertilizers and to improve the soil quality, particularly on the Vinogradci farm. GIS modeling in sustainable crop selection and optimization of fertilization contribute to easier, faster and accurate decisions within agricultural production and helps to reduce negative impact on the environment.

Keywords: GIS modeling, fertilization, crop production planning

Introduction

Precision Agriculture (PA) is a whole-farm management approach that uses information technology, satellite positioning (GNSS) data, remote sensing and proximal data gathering. These technologies have the goal of optimising returns on inputs whilst potentially reducing environmental impacts (European Parliament, 2014; Buick, 1997; Pierce and Clay, 2015; Yousefi, et al., 2015; Lee, 1997). At a very basic level, precision agriculture can include simple practices such as field scouting and the spot application of fertilizers or pesticides. However, precision agriculture usually brings to mind complex, intensely managed production systems using global positioning system (GPS) technology to spatially reference soil, water, yield, and other data for the variable rate application of agricultural inputs within a field. Research is ongoing to develop or improve yield monitoring methods and equipment, determine economic and environmental impacts of variable rate application of agricultural inputs, and use remotely sensed data to make management recommendations (Nemenyi et al., 2003; Buick, 1997).

Precision Agriculture is a method of agriculture that considers changes in the land and the technology of cultivation, fertilization, spraying, and other agro-technical practices are used according to these changes. Also, they are used in local applications in a particular land. Global Positioning System (GPS) provides the possibility to attribute the spatial coordinates of the farm data. Also, it is possible to determine and record the correct position continuously. Such technology provides readily available data and a larger database for agricultural users. Geographic information system (GIS) is essential to the storage and handling of data (Buick, 1997; Lee, 1997). Stored GIS satellite images are used as a reference backgrounds to the relevant database in GIS which are being generated during field investigations. Combining the data from the field with GIS satellite images, we are able to produce theme maps. In theme maps, each data is georeferenced and stored on a specific data layer which overlaps with other layers creating a theme map. Each layer represents a unique database for a specific group of data (eg. rivers and other water surfaces are part of a one unique layer in GIS). With multiple layer combination theme maps can be created with spatial presentation of attributes in question in addition modelling provides a logical procedure for predicting process outcomes in circumstances other than those observed. The overall impact of a farming system can be understood better, and management decisions that address both economic and environmental issues can be presented (May et al., 2007; Tayari et al., 2015; Pinter et al., 2003).

The aim of present study was to determine and visually display optimal fertilization and liming requirements in crop production at two different family farms (Vinogradci and Berak) based on soil properties. The additional goal was to determine possible connection of spatial distribution of the soil agrochemical properties, agronomic practice at farms and other land properties.

I.

Materials and methods

Soil properties Data used in present study are soil data from an EU crossborder Croatia-Serbia project „Agriculture Contribution Towards Clean Environment and Healthy Food – AGRI-CONTO-CLEEN“. Database of the project consists of agrochemical properties of soil for many farms in Osijek Baranja County. In our study we investigated two farms with different soil properties - Vinogradci and Berak. Soil data included agrochemical properties such as: pH, hydrolytic acidity, soil organic matter content (humus), available phosphorus (AL-P₂O₅) and available potassium (AL-K₂O) determined by ammonium-lactate extraction method (AL-method).

GIS layers The GIS modelling was conducted using Arc-GIS 9.3 software (2006). We used a WMS map, a ortophoto images of Croatia from 2011 which is available on the Geoportal of State Geodetic Department Republic of Croatia. On this layer, using Arkod – system of records of land parcels in Croatia, we drew the field sites of the two observed farms and joined this polygon layer with the soil properties data layer, and by that we were obtained the georeferenced data.

Fertilizing recommendations We used Decision Support System (DSS) calculator to determine the fertilizing and liming requirements for the two farms, Vinogradci and Berak. The fertilizing calculator is available on the AGRI-CONTO-CLEEN projects webpage (www.agroekologija.com, Faculty of Agriculture in Osijek, Agroecology Department). Required input data for the DSS calculator are: planed crops, planed yields, pre-crop, properties of the soil (pH_{H₂O}, pH_{KCl}, SOM content (%), AL-P₂O₅ (mg/100g), AL-K₂O (mg/100g) and hydrolytic acidity (cmol/kg)), mean values for the region were included for the texture class of the soil, organic fertilizing of the pre-crops, planed organic fertilizing and available mineral fertilizers. Data collected by the DSS were further combined with the database of the AGRI-CONTO-CLEEN project and the orthophoto map of Croatia from 2011, by which we were able to visually project fertilizing and liming requirements on a map for these two farms.

Statistics The results were processed in statistical program Minitab® Statistical Software version 15 (2007). We determined correlation, analysis of variance (ANOVA) and Tukey test to show significant differences.

Results and discussion

The two observed family farms, Vinogradci and Berak, showed significantly different soil properties. The first one, Vinogradci, was determined as acid soil and the second one, Berak had mainly alkaline soil (Table 1).

On the Vinogradci farm, 30 fields were analysed which ranged in size from 0,28 ha to 35,09 ha, with mean size of 3,6 ha. These plots were further separated into 52 field sites for more clear spatial analysis and they ranged in size from 0,28 ha to 17,95 with the mean size of 2,1 ha. Total area of the Vinogradci farm covered 109 ha.

On the Berak farm, 29 fields were analysed, ranged in size from 0,6 to 12,97 ha, with mean size 3,1 ha. For more precise spatial analysis the plots were further separated into 50 field sites ranged from 0,6 ha to 4 ha, with mean size 1,7 ha. Total area of the Berak farm covered 85 ha.

Table 1. Descriptive statistics of the investigated field sites

	Site	n	mean	StDev	Min.	Max.	p
pH(H₂O)	Vinogradci	52	5.8	0.6967	4.4	7.6	***
	Berak	50	7.2	0.972	5.7	8.6	
pH(KCl)	Vinogradci	52	4.9	0.722	3.9	7.1	***
	Berak	50	6.4	1.06	4.7	7.7	
Humus	Vinogradci	52	1.7	0.3376	1.1	2.7	***
	Berak	50	2.1	0.2515	1.6	2.8	
AL P₂O₅	Vinogradci	52	11.2	7.145	4.9	47.2	***
	Berak	50	21.2	24.89	5.6	100.0	
AL K₂O	Vinogradci	52	17.5	6.699	9.1	44.1	***
	Berak	50	24.3	4.619	15.7	35.6	

*** p < 0.001; ** p < 0.01; * p < 0.05; ns – no significant differences

For both farms and their field sites, soil properties analysis included soil pH (pH_{H₂O} and pH_{KCl}), SOM (soil organic matter) content, phosphorus and potassium content determined by ammonium lactate (AL) method (Table 1).

For both farms and their field sites, fertilizing and liming recommendations were generated and significant differences in fertilizing and liming requirements were detected between the two farms. The recommendation are calculated for applying only mineral fertilizer (without farm yard manure application) and for applying both mineral and organic fertilizer (FYM).

Table 2. Descriptive statistic for the fertilizing recommendations of the two farms

	Site	n	mean	StDev	Min.	Max.	p
N kg/ha	Berak	50	93	3.642	85	105	***
	Vinogradci	52	97	4.345	90	105	
P ₂ O ₅ kg/ha	Berak	50	74	38.59	0	130	**
	Vinogradci	52	94	27.87	0	130	
K ₂ O kg/ha	Berak	50	36	27.07	0	95	***
	Vinogradci	52	82	34.06	0	125	
FYM t/ha	Berak	50	33	3.607	20	40	*
	Vinogradci	52	35	3.093	22.5	50	
N kg/ha after FYM	Berak	50	42	5.345	35	65	ns
	Vinogradci	51	44	5.833	35	75	
P ₂ O ₅ kg/ha after FYM	Berak	50	35	27.9	0	95	*
	Vinogradci	51	48	30.09	0	90	
K ₂ O kg/ha after FYM	Berak	50	1	4.482	0	25	***
	Vinogradci	51	20	21.64	0	60	

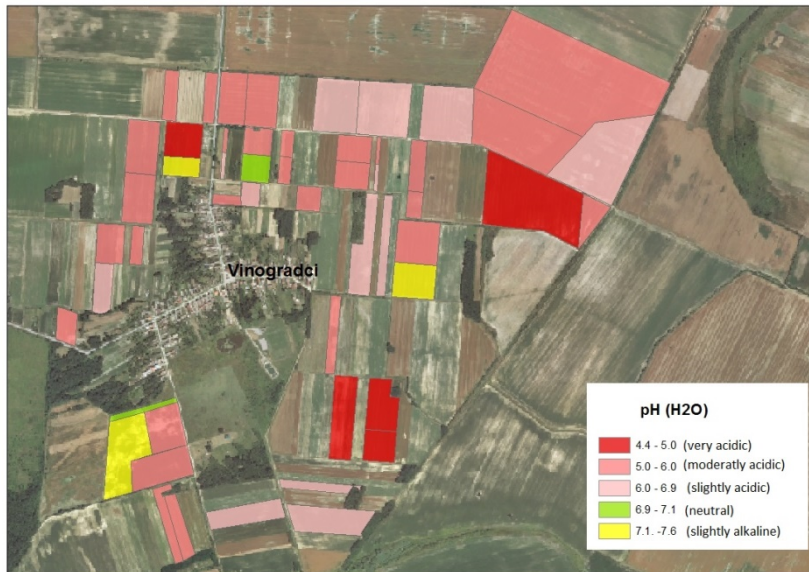
*** p < 0.001; ** p < 0.01; * p < 0.05; ns – no significant differences; FYM: Farm yard manure

Soil analysis on farm Berak has determined the current range of acidity that varies from moderately acid to moderately alkaline soil. A total of 50 soil samples for the farm Berak, out of the 29 field sites divided into 50 plots; 6 plots belong to the category of moderately acid soils, 18 slightly acid, 2 neutral, 8 have a slightly alkaline reaction, and 16 moderately alkaline pH reaction.

Soil analysis on farm Vinogradci (52 soil samples) has determined the current range of acidity that varies from very acid to slightly alkaline soil. Out of these 52 soil samples 5 of them were very acid, 29 was moderately acid, 13 slightly acid, 2 neutral and 3 had a slightly alkaline pH reaction.

From the results of soil analysis it can be seen that Vinogradci site require liming of some sites in order to increase the pH value to an optimum and in addition they require higher dosage of fertilizers due to poor soils and lower content of main nutrients (Table 2). Therefore in the following figures are represented maps that indicate the lime and fertilizer requirement at Vinogradci location.

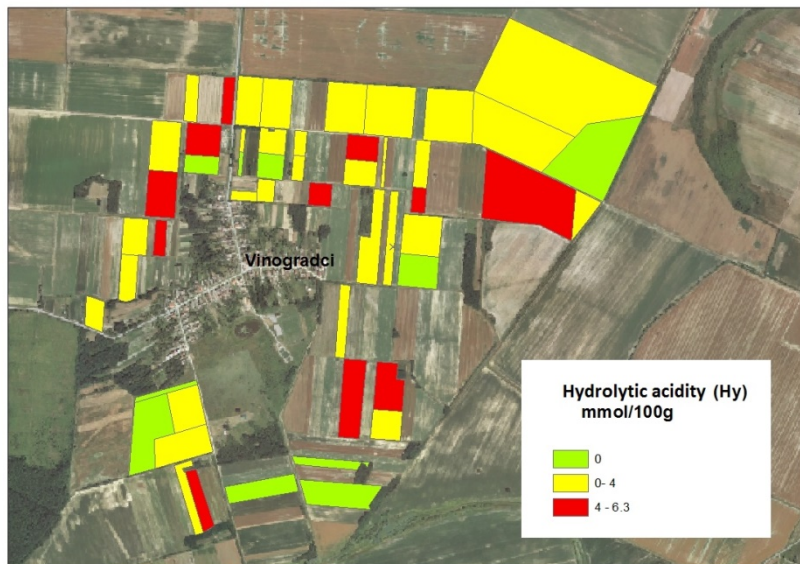
Figure 1. pH value of the field sites on the Vinogradci farm



pH reaction of the Vinogradci farm plots range from 4.4 to 7.6

Based on the results of hydrolytic acidity (Figure 2) and DSS, required amounts of liming are shown in Figure 3. The map displays the need for liming on this farm, where 5 plots out of total 52, need liming in the range of 0-10 t/ha, and 5 plots need liming in the range of 10 to 17,6 t/ha. The other 42 plots have no need for liming (Figure 3).

Figure 2. Hydrolytic acidity of the field sites on the Vinogradci farm



Hydrolytic acidity on the Vinogradci farm range from 0 to 6.3

Soil analysis determined that on Berak farm out of total 50 plots 6 of them are poor in potassium, 36 are well supplied and 8 are rich in potassium. On the other hand, on the farm Vinogradci with total of 52 plots, 6 plots were very poor, 38 were poor, 5 were well-supplied and 3 plots were rich in potassium (Figure 4).

Figure 3. Lime requirement on the farm Vinogradci (lime t/ha)

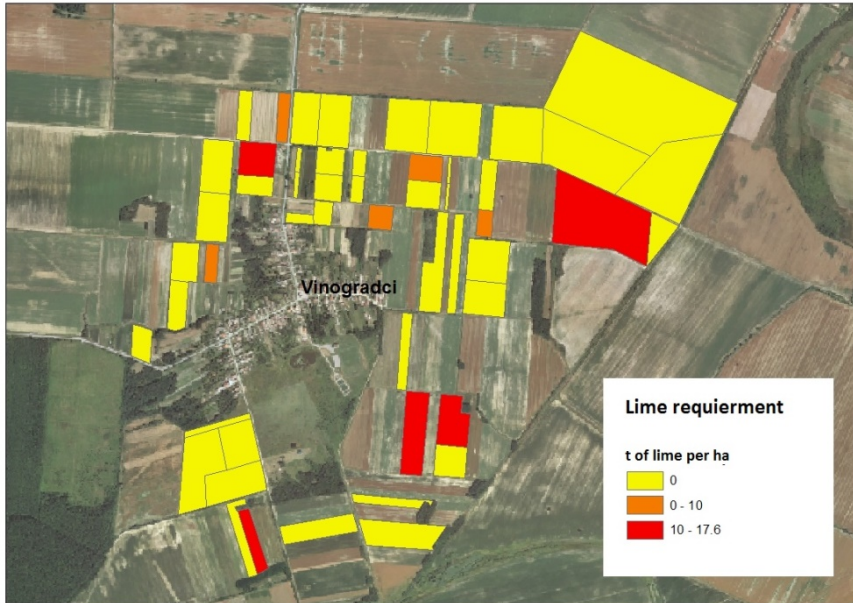
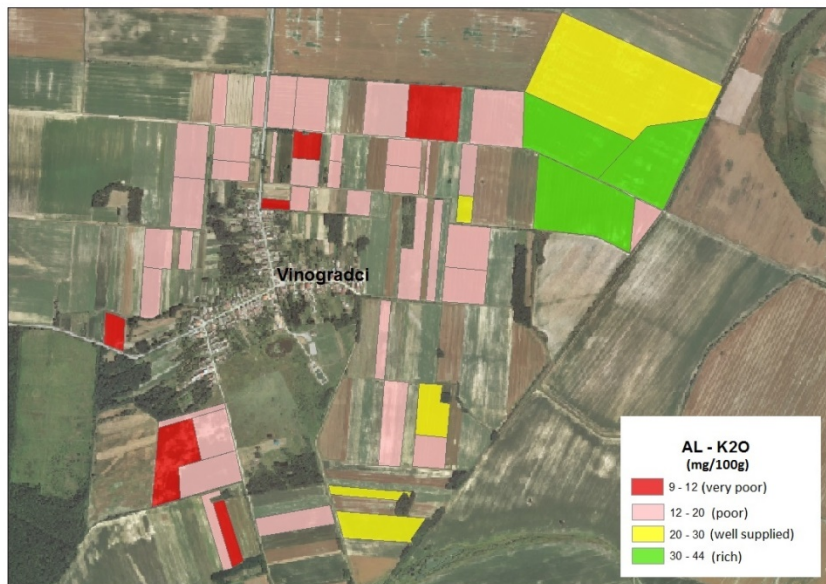


Figure 4. Potassium content (mg of K_2O per 100g of soil) on the field sites for the farm Vinogradci



According to the results of DSS, required potassium fertilization, without applying farm yard manure (FYM), on the farm Vinogradci is visualized in figure 5. The cartographic display of the need for mineral potassium fertilizer with previously applying the optimal dose of FYM is shown in figure 6. It is evident that from the total of 52 plots, without applying FYM, only 5 plots were sufficient in potassium and only these 5 had no need for K fertilization. The recommendations for potassium fertilization for other 47 plots ranged from 35 to 125 kg/ha K_2O . These requirements are significantly lower if applying FYM was planned (Figure 6). If we apply FYM, 24 plots out of 52, so almost half of them have no need for additional mineral application of fertilizer.

According to the results of DSS calculated amounts of potassium fertilization on farm Vinogradci, combined with planned application of FYM are shown in Figure 6. The recommendations for mineral potassium fertilization were quite low. As mentioned earlier 24 of the plots needed no application of mineral fertilizer, 26 needed small amounts (20 – 55 kg/ha) and only 2 plots needed 60 kg/ha of mineral fertilization after applying FYM.

Figure 5. Need for potassium fertilization without organic fertilization

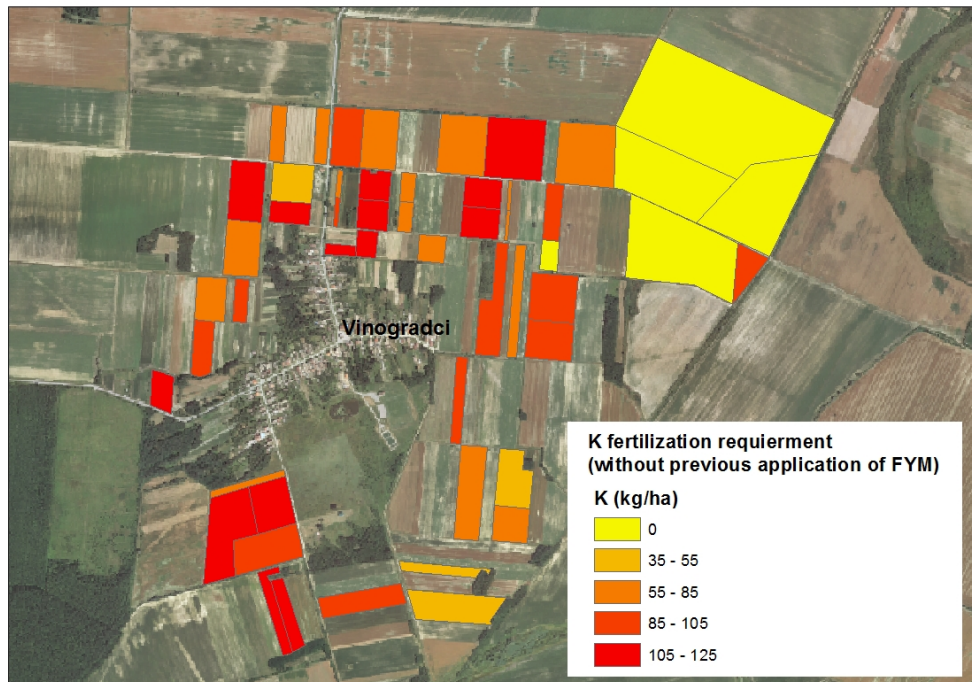
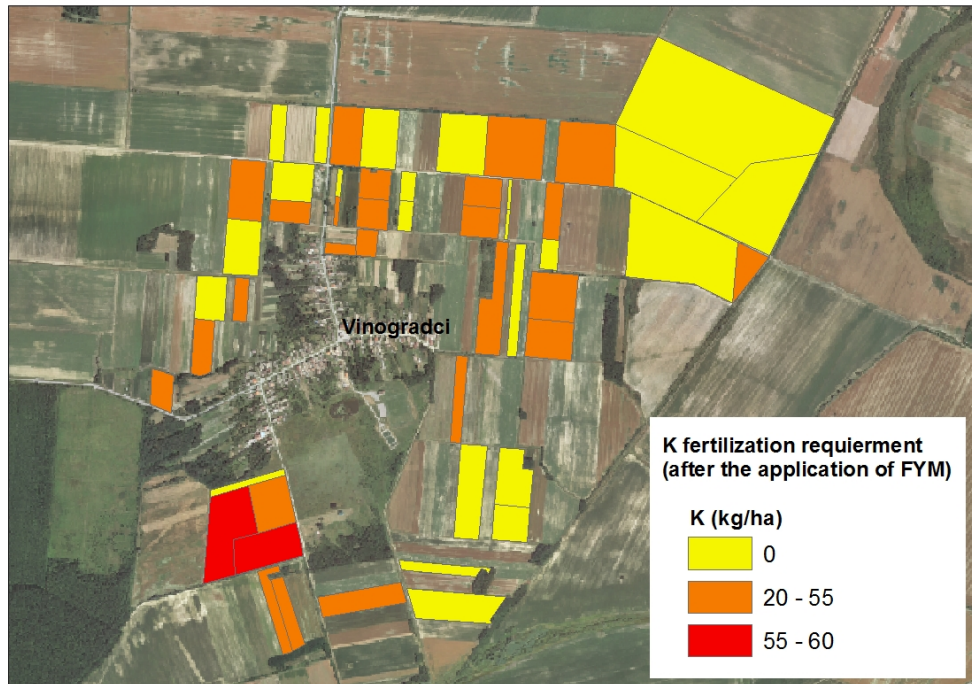


Figure 6. Need for mineral potassium fertilization after applying FYM

Comparing the values of the recommended mineral fertilization with and without FYM on both farms, it is clear that the amounts of needed mineral fertilizer are reduced if applied together with FYM (Table 2, Figures 5 and 6), whereas the quality and health of the soil would be improved and the costs of mineral fertilization would be reduced. Better choice of crops and site specific application of adequate amounts of fertilizer, FYM and mineral, in the long run would contribute to better quality of the soil and therefore crops. Farm yard manure application is important because it improves the properties of the soil, especially soil structure which then results in better water retention, greater availability of nutrients and reduces soil erosion on slopes (Škvorc et al., 2014). Also, modelling provides a logical procedure for predicting process outcomes in circumstances other than those that have been observed and by that are very versatile in their application and their users (Day et al., 2007). Numerous outcomes can be predicted as well as the positive and negative. Therefore, the more information there is about a certain plot, the better the modelling quality. There are numerous modelling systems available to farmers today that need implementation in their farming system and they represent one of the key factors of sustainable farming (Tayari et al., 2015).

Conclusion

Significant differences in soil properties of two sites were observed and there is a clear higher need of liming and fertilization at family farm Vinogradci. The importance of maps and visualization of soil properties is in visual display of the spatial distribution of the available data of the soil and finding the causes for such patterns. Such modeling approach improves and contributes to the efficient elimination of the negative effects on the spatial distribution of the investigated properties. On the family farm Vinogradci is obvious that 13 plots have to acid pH reaction and have a high need for liming. The plots on family farm Vinogradci are less fertile compared to family farm Berak, as it was shown on maps. Possible explanation for this could be consistent FYM application on the family farm Berak making soil richer in nutrients. Based on this modeling approach and having in mind the initial pH reaction of the agricultural plots and fertilizer requirements, we should consider choosing mineral fertilizers more appropriate to acid soils at family farm Vinogradci, more combine mineral fertilization with FYM to improve the soil quality and decrease use of mineral fertilization. On the other hand, at family farm Berak should be used mineral fertilizer with acid residual reaction which are more appropriate to alkaline soils.

References:

- ArcGis, 2006. ArcGis desktop version 9.2. Redlands, CA, USA, ESRI
- Bašić, F., Herceg, N. (2010): Temelji uzgoja bilja, Synopsis, Zagreb
- Buick, R.D. (1997): Precision Agriculture: An intergration of information technologies with farming, 50th N.Z. Plant Protection Conf. 1997: 176-184.
- Day, W., Audsley, E., Frost, A. R. (2007): An engineering approach to modelling, decision support and control for sustainable systems, Philosophical Transactions of the Royal Society B: Biological Sciences, 363: 527–541
- European Parliament (2014): Precision Agriculture: an opportunity for EU Farmers- Potential support with the cap 2014-2020.
- Lee, B.L., Y.C. Kim and M.E. Park, (1997), Interactive web interface for GIS applications in Agriculture, Korea Agricultural Information and Technology, Vol.6 No.1, 136-139
- Lončarić, Z. et al. (2015): Doprinos poljoprivrede čistom okolišu i zdravoj hrani. Poljoprivredni fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, Osijek 2015
- Mesterhazi, P.A, Pecze, Zs., Nemenyi, M. (2001): The engineering and GIS background of the precision farming technology, Plant Protection 37 (6): 273-281.
- Minitab Statistical Software (2007). State College, PA, USA. Minitab Inc.

- Nemenyi, M, Mesterhazi, P.A., Pecze, Zs. (2003): The role of GIS and GPS in precision farming, *Computers and Electronics in Agriculture* 40: 45/55
Official webpage of IPA cross-boarder programe Croatia– Serbia, Doprinos poljoprivrede čistom okolišu i zdravoj hrani AGRI-CONTO-CLEEN, Poljoprivredni fakultet u Osijeku,
- Pierce,F.,J., Clay, D. (2015): *GIS Applications in Agriculture*. CRC Press, Taylor & Francis Group
- Pinter, P. J., Jr., Hatfield, J. L., Schepers, J. S., Barnes, E. M., Moran, M. S., Daughtry, C. S. T. (2003): Remote sensing for crop management, *Photogrammetric Engineering and Remote Sensing*, 69: 647-664.
- Reetz, H. F. Jr. (2016): *Fertilizers and their efficient use*. International Fertilizer Industry Association (IFA), Paris, France, 2016
- Tayari, E., Jamshid,R.,A., Goodarzi, H.,R. (2015): Role of GPS and GIS in precision agriculture, *Journal of Scientific Research and Development* (3): 157-162,
- Yousefi, M. R. , Razdari, A. M. (2015): Application of Gis and Gps in Precision Agriculture (a Review), *International Journal of Advanced Biological and Biomedical Research*; 3 (1), 7-9
[http:// www.agroekologija.com/agri-conto-cleen/](http://www.agroekologija.com/agri-conto-cleen/)

An Examination of the Relationship Between Individual Creativity and Perceived Organizational Support Levels of Employees

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Abstract

Creative thinking has gained more prominence than ever under contemporary evolving and advancing conditions. In this line, development of creativity of human resources and its configuration into a functional tool have gained strategic importance. Creativity is considered as a process for acquisition of both novel and utility outputs. Perceived organizational support is that existing values in an organization are qualified in a way that they attach importance to and prioritize employee's satisfaction, motivation and happiness. The objective of this study is to determine and investigate the relationship between employees' individual creativity levels and the organizational support perceived by them. The study was conducted on 177 employees at the teknokent. The Spearman correlation analysis was applied along the constructed hypotheses so as to determine the correlation. According to the obtained results, a positive and statistically significant correlation was determined between employees' individual creativity levels and their perceived organizational support. Mann Whitney U Test and Kruskal Wallis Test were employed in evaluation of employees with respect to their individual demographical characteristics. On the basis of their gender and marital status, it was revealed that organizational support and individual creativity were higher among male and single respondents. Moreover, perceived organizational support and individual creativity were mostly seen in the age group of 17-23. With regard to work experience, the highest individual creativity was determined with the respondents with 2-5 years work experience; the highest perceived organizational support was determined with the respondents with work experience of 16 years and longer.

Keywords: Individual Creativity, Perceived Organizational Support

Introduction

Today, business organizations are required to come forward with various features in order to survive through compelling competition environment, progress with significant steps in comparison with their competitors and prepare themselves to future. The principal aspects of these factors which comprised of economic and social subjects are considered as capability to have strong economy, adjust to change and novelties, and to display continuous development (Samen, 2008: 364). In the meantime, a notable transition from conventional understanding to modern one was observed in this process: Management-Oriented conventional business understanding was replaced by entrepreneurial spirit; labor force was replaced by brain power; industrial society understanding was replaced by information society understanding and individual movement was replaced by collaborative movement understanding. In these processes, fundamental factor is "human" for businesses. Human, the most important capital factor, is required to have advanced intellectual knowledge, be open to innovations, to have dubious and creative characteristics so as to accomplish purposes of business; introduce solutions to problems; and to progress (Marimuthu et al., 2009: 266).

In terms of businesses, development of creativity of human resource and enhancing its functionality are considered strategically fundamental (Balay, 2010: 44). In other words, the association between processes of competitive edge and adjustment to development and change and creativity strength of human resources has been more remarkable than ever (Ünal, 2002: 1-2) and it has come to the first place as a value adding factor.

Under such conditions of the business life in which "human" factor play such essential role, fulfillment of expectations of employees and their support are proportionally essential and necessary because it is thought that fulfillment of expectations of employees would contribute into productivity and efficiency of the overall organization (İplik et al., 2014: 110). The relevant studies in the literature reveal that employees are directly influenced by the positive or negative situations that they encounter at the workplace (Amabile, 1997: 55; Shalley et al., 2000: 221; McLean, 2005: 241). When employees think that they are adequately supported by their organizations, their sense of belonging towards the organization enhances, which eventually advances their work performance. On the contrary, employees who feel deficiency of support of their organization would avoid using their talent and skills for the benefit of their organization (Eder and Eisenberger, 2008: 55).

Accordingly, it is necessary that employees' individual creativity levels to be explored, enhanced and to utilize in more efficient way. Hence, in order to ensure this, organizations should attach importance to and support creativity skills of their employees. Therefore, this study tried to investigate

the relationship between employees' individual creativity levels and their perception of organizational support.

Literature Review

The Concept of Creativity

Creativity has long standing concept as humankind. However, its significance has grown further in the 21st century. The need for seeing available opportunities, structuring new tools, interpreting life in evolving and ever changing societies and cultures within the business and daily life conditions getting more complicated and becoming vague further has intensified as days pass. This need introduced requirement of more creative structures to provide expert guidance to solution of current and future issues; to develop our individual skills; to accomplish more comprehensive learning about relevant facts of today and future (Tan and Perleth, 2015: 1). Due to the need for creativity concept, it has attracted more attention day by day and it has been studied from various points of angles (Anoiko, 2011: 23). This diversity required to consider creativity with its three dimensions subject to ever changing and developing circumstances of the era. The first dimension relates with describing human and their personality. In this scope, there are field studies on cognition, personality and concept (Guilford, 1950: 444-445; Runco, 2014: 1-2). In the second dimension concentrated on organizational characteristics while strives to reveal the relationship between creativity and organization (Woodman et al., 1993: 293). Finally the third dimension is concentrated on education and improvement subjects. By applying different education methods to individuals, their consequences with respect to creativity are tried to be investigated (Mansfield et al., 1978: 517).

Creativity, in the most general sense, is described as a talent to acquire both new and utility outputs. When this concept is taken into consideration within the context of organization, it is required to be handled with all factors such as novel and utility ideas, products, service, procedure, process, environmental conditions and personal characteristics displayed by employees in complex systems to add value to their organization (Mumford and Gustafson, 1988: 27-28). In other words, as it could be understood from the content of the creativity concept, creative products, processes and circumstances and the interaction among them must be comprehended well in order to understand creativity (Lee et al., 2013: 2).

Creativity, from a different point of view, is a concept which could offer solution for issues; is not comprised of cognitive elements but also includes motives and affections that make it closely related with individual factors in cultural context. In this line, creativity could be described as a process that occurs as a result of discovery of new ideas or rearrangement of current factors (Boden, 1998: 347).

As it could be understood from the descriptions above, it is not possible to describe the concept of creativity within certain limits. To the end of comprehending the process and to draw a better description, the creativity process and its outputs are required to be investigated with their characteristics. In the organizational sense, the common points among the considered descriptions of individual creativity could be summarized as follows: "Revealing the one which has not been thought before", "making innovation", "being different", "being different than the commonly known", "sharing result" and "independence from regular and stereotyped things".

Individuals are considered as the minor constituents of society or social order. On the other hand, groups are comprised of two or more individuals who are thought to have inter-dependencies, relationships or interactions (Yeloğlu, 2007: 136). When inter-personal and group relationships are taken together, it would be possible to state that creativity starts at the personal level and persists at the group level. On the basis of this opinion, the concept of creativity will be tried to be considered with its two dimensions of individual creativity and organizational creativity.

Individual Creativity: Individual creativity is described as the capacity to display behaviors or knowledge that could provide an appropriate solution in the face of various problems (Kapu and Baştürk, 2009: 527). According to Amabile, individual creativity occurs subject to three factors: proficiency, creative thinking and task motivation (Amabile, 1997: 42). Intelligence and knowledge of an individual constitute his/her creative strength. Therefore, proficiency includes the things known by an individual and that could be accomplished by this individual in his/her expertise field (Ford, 1996: 1123). Individuals' approach towards issues is related with creative thinking skill (Runco, 2014: 241). Characteristics such as convincing and encouraging oneself about a task, self-motivation are related with overall motivation (Ford, 1996: 1120). The interaction among these three factors yields individual creativity.

Organizational Creativity: In the most common sense, organizational creativity is that individuals' creation of service, idea, process, procedure and new products that would add value to the organization while they are working together within complex systems (Woodman et al., 1993: 293). Another description which approaches organizational creativity from a more comprehensive point is given as follows: "Organizational creativity represents the adoption of new concepts and understanding and developing them further through the process by establishing an environment allowing transition to new ideas, services and processes (Yahyagil, 2001: 8). In this description, the persistence of need for change, that is the requirement of going beyond stereotyped ideas, was emphasized. According to another description which prioritizes information transfer and development of

individual creativity, organizational creativity is described as a circumstance which occurs as a result of using individual expertise in line with organizational interests by members of organizations (Chang and Chiang, 2007: 4).

Creativity Process

Following five steps frequently encountered in the relevant literature need to be mentioned about the creativity process:

- 1. Description of Issue and Determining Opportunities:** Creative idea, project, service and product are the elements, which are not known whether they are needed until they are "discovered". However, their necessity should be determined so that they could be discovered. At this stage, issues and opportunities are required to be exposed clearly and evidently (Bentley, 2004: 76).
- 2. Gathering Information:** This is the stage for gathering information to the end of investigation into necessary details concerning the subject (Yıldırım, 2007: 114).
- 3. Creating Idea:** This is the stage for blending gathered information afterwards of description of issue and determining opportunity. This period is also referred as incubation period. This stage requires more focusing on intellectual processes (Cengiz et al., 2006: 423).
- 4. Developing and Amending Ideas:** This is the stage in which potential solutions are evaluated. That is, this is emerging an invention or acquisition of an invention (Arık, 1987: 34-35).
- 5. Application:** At this stage, consideration of applicability of obtained results are finalized and application is initiated (Stamm, 2003: 41). In other words, this is transformation of all acquisitions into something useful.

The Concept of Perceived Organizational Support

The concept of perceived organizational support has not been conceptualized entirely until the 1980s. However, the concept of organizational support has been reported in management literature for almost seventy years. Accordingly, the concept has been tried to be interpreted by various researchers through different forms (Beheshtifar and Zare, 2012: 30).

On the basis of the description drawn by Eisenberger et al. who has prominent studies in the literature on perceived organizational support concept, organizational support is the contribution and awakened interest among employees of an organization stimulated by values embraced in an organization in terms of performing better (Eisenberger et al., 1986: 501). In other words, existing values in an organization are required to be qualified as they attach importance and prioritize to employees' satisfaction, motivation and happiness.

The concept of organizational support is essentially based on perception. This concept includes everything perceived by employees. In this sense, organizational support is that employees feel the support given by their organization to them (Yoshimura, 2003: 10).

In the relevant studies, it is reported that there are various factors effective on perception of organizational support by employees (Zang et al., 2012: 423). From different points of view, factors effective on perceived organizational support could be examined in two fundamental groups with respect to their general characteristics: Individual factors and Organizational factors.

Individual Factors: Individual factors effective on organizational support are consisted of personality characteristics and demographical characteristics in general. Whereas personality characteristics are comprised of positive and negative affections as well as conscience, trustworthiness, carefulness, rigor, patience and responsibility; demographical characteristics are comprised of age, gender, education and service period (Rhoades and Eisenberger, 2002: 701).

Organizational Factors: Organizational factors are consisted of organizational justice, supervisor support and human resources practices.

Methodology

Individuals' capability to exhibit their creativity is proportional to the opportunities supplied for them by their organizations. This is because organization members' capability to use and develop their individual creativity depends on the fact that existing organization values are directly related with organizational environment which attaches importance to and prioritising employees' satisfaction, motivation and happiness. Especially Eisenberger et al., studies in the literature addresses the significance of this relationship (Rhoades and Eisenberger, 2002: 698). In sum, it is possible to conclude that perceived organizational support and individual creativity level are associated. The primary purpose of this study is to determine this relationship. To the end of this objective, the main hypothesis was structured as below:

Hypothesis: There is positive and statistically significant relationship between organizational support perceived by respondents and their individual creativity level.

Additionally, the study also aimed to investigate whether organizational support perceived by employees and their creativity levels differ with respect to their gender, age, education status, marital status, professional experience and industry. Along these objectives, following sub-objectives were structured:

H₁: Organizational support perception of respondents displays significant difference with respect to their gender.

H₂: Individual creativity levels of respondents display significant difference with respect to their gender.

H₃: Organizational support perception of respondents displays significant difference with respect to their marital status.

H₄: Individual creativity levels of respondents display significant difference with respect to their marital status.

H₅: Organizational support perception of respondents displays significant difference with respect to their education status.

H₆: Individual creativity levels of respondents display significant difference with respect to their education status.

H₇: Organizational support perception of respondents displays significant difference with respect to their age.

H₈: Individual creativity levels of respondents display significant difference with respect to their ages.

H₉: Organizational support perception of respondents displays significant difference with respect to their education status.

H₁₀: Individual creativity levels of respondents display significant difference with respect to their professional experience.

H₁₁: Organizational support perception of respondents displays significant difference with respect to their industry.

H₁₂: Individual creativity levels of respondents display significant difference with respect to their industry.

The first data collection tool employed in the study was the 8-item perceived organizational support scale developed by Eisenberger et al. (1986). The other tool was individual creativity scale comprised of 16 questions developed by Balay (2010). Both scales were structured in 5-point Likert type.

The universe of the study is consisted of employees of companies located at the Pamukkale Teknokent (PT). According to the data received from the administration of the PT, number of registered employee and companies were determined as 317 and 101, respectively. Totally 200 respondent were reached and requested to answer the survey form. The number of survey forms completed fully and without an error were 177, which means 88% return rate. Obtained results from this study could represent the study universe at 95% ($\alpha=.05$) confidence level.

Results

Statistical Package for the Social Sciences (SPSS) 21 has been used for the analysis of the data. First of all, the reliability of the data has been controlled by investigating the Cronbach's Alpha coefficient. As both of them are above of 70% (see in Table 1), scales found reliable.

Table 1: Reliability Statistics

Scale	N of items	Cronbach's Alpha(α)
Perceived organizational support	8	0,917
Individual creativity	16	0,914

Answers of respondents are required to be examined whether they are distributed normally, or not. In this way, first their skewness and kurtosis levels of them were analyzed. While skewness value of perceived organizational support data was estimated at -1.05; and kurtosis value was estimated at 2.27. Since these values were in the range of -1 and +1, it is possible to conclude that data did not show normal distribution. While skewness value of individual creativity data was estimated at -4.22; their kurtosis was estimated at 5.2. Again, since these values were not in the range of -1 and +1, it is possible to conclude that data did not show normal distribution. Moreover, statistical significance levels of normality tests of Kolmogorov-Smirnov and Shapiro-Wilk analyses were found to be 0.00. These results also supported that obtained data was not normally distributed. Thus, non-parametric methods will be employed in these analyses.

Table 2 exhibits mean and standard deviation values and correlation analysis results of data collected by means of the employee perceived organizational support and individual creativity scales. The mean score of the answers given to the individual creativity scale was found to be higher with respect to the perceived organizational support scale. The mean scores of both scales were determined high. The Spearman correlation degree between the perceived organizational support and the individual creativity scales was estimated at 0.52 and this was found to be statistically significant at 1% level. According to these findings, the main hypothesis was not rejected. Our findings displayed similarity with results of previous findings. Such that, Eisenberger et al. reported in their study that organizational support and occurrence of new approaches were correlated (Eisenberger et al., 1990: 55). There are other studies supporting this study in the literature as well (Amabile, 1997: 55; Shalley et al., 2000: 221; Eren and Gündüz, 2002: 65; McLean, 2005: 241).

Table 2: Descriptive Statistics and Correlation

Scale	Mean (\bar{x})	Std. Deviation	Perceived Organizational Support	Individual Creativity
Perceived organizational support	3,74	0,81		
Individual creativity	3,97	0,57	0,52**	

**correlation is significant at the 0.01 level

In the last section of the study, whether there was difference between respondents' mean scores with respect to their demographical characteristics

was investigated. At the first place, results of the Mann Whitney U Test which analyzed data with two variables were exhibited on Table 3. According to the obtained results, a statistically significant difference was determined between perceived organizational support and individual creativity with respect to gender and marital status ($p < 0.05$). Accordingly, H_1 , H_2 , H_3 and H_4 hypotheses were accepted. When it is interpreted with respect to mean scores, it could be seen that mean scores from the organizational support and the individual creativity scales were higher among male and single respondent groups. In one of the previous studies, Hu et al. reported that individual creativity levels of Chinese male respondents were found to be higher in comparison with female respondents (Y₁ et al., 2013: 35).

Table 3: Mann-Whitney U Test Results

Perceived organizational support		Sig.(p)	Mean
Gender	Female	0,00	72,92
	Male		100,82
Marital status	Married	0,019	80,42
	Single		98,50
Individual creativity		Sig.(p)	Mean
Gender	Female	0,01	74,30
	Male		99,81
Marital status	Married	0,00	75,27
	Single		104,20

Among the answers given by respondents, which concern demographical data, the ones with variables more than two were investigated by means of the Kruskal-Wallis Test. Test results were exhibited in Table 4. In order to conduct this analysis, first whether variances of these variables were distributed homogeneously was investigated. When homogeneity of variance was estimated as $p > 0.05$, it was considered that they displayed homogenous distribution and thus Kruskal-Wallis Test was proceeded. In order to evaluate statistical significance of Kruskal-Wallis Test results, the condition of $p < 0.05$ was probed. According to our findings, perceived organizational support and individual creativity were most determined with the age group of 17-23. While individual creativity was mostly determined with respondents with master degree, perceived organizational support was mostly determined with the respondents graduated from high school. With regard to respondents' professional experience, the highest individual creativity was determined with the ones with 2-5 years experience; the highest perceived organizational support was determined with the respondents with 16 and longer experience. In terms of respondents' industry, the highest perceived organizational support and individual creativity were determined with the computer and communication

information industry. In line with these findings, H₅, H₆, H₇, H₈, H₉, H₁₀, H₁₁ and H₁₂ hypotheses were accepted.

Table 4: Kruskal-Wallis Test Results

Perceived organizational support			Individual creativity			
	Sig. (p)	Mean rank		Sig. (p)	Mean rank	
Education status	0,00	Primary	80,55	Education status	Primary	48,35
		High Sch.	125,43		High Sch.	103,2
		Associate	127,5		Associate	102,5
		Undergra.	63,43		Undergra.	78,77
		Graduate	90,16		Graduate	104
Age	0,00	17-23	127,27	Age	17-23	119,24
		24-30	73,25		24-30	89,55
		31-37	83,1		31-37	77,51
		38-44	92,21		38-44	74,45
		45 and ov.	46,25		45 and ov.	58,5
Experience	0,00	0-1	105,77	Experience	0-1	100,61
		2-5	95,95		2-5	105,56
		6-10	62,91		6-10	65,28
		11-15	72,68		11-15	75
		16 and ov.	113,83		16 and ov.	93,72
Sector	0,00	Res./Cons.	61,31	Sector	Res./Cons.	77,19
		Comp.	123,96		Comp.	110,53
		Energy	57,5		Energy	106,1
		Public	64,6		Public	68,76
		Mining	116,63		Mining	97,22
		Textile	59,19	Textile	75,69	

Conclusion

In today business world experiencing substantial evolution, it is necessary to keep up with change and even to go beyond them. Since these changes include both variety of product and service and technology, customer and competitors and numbers of dynamics in society (Koçel, 2015: 394), having control over these dynamic processes has become more fundamental than ever. Businesses are required to act based on creativity in order to catch up with advancements. They could accomplish their targets through their current employees. It is considered that positive results could be achieved as long as necessary creativity conditions are provided to employees.

In this scope, firstly the relationship between perceived organizational support and creativity levels was investigated. As a result of the study, a positive and significant correlation was observed between the two variables.

On the basis of evaluation of respondents with respect to demographical data, Mann Whitney U Test and Kruskal Wallis Test were employed. When mean scores of respondents were evaluated according to gender and marital status, organizational support and individual creativity were found higher among males and singles. Moreover, perceived organizational support and individual creativity was seen most among the age group of 17-23. Whereas individual creativity was seen most among respondents with master degree, perceived organizational support was seen with high school graduates. With regard to professional experience, the highest individual creativity was observed with the respondents with 2-5 years experience, the highest perceived organizational support was observed with the respondents with 16 years experience. On the other side, the highest levels of perceived organizational support and individual creativity were determined with computer, communication and information industry.

In line with the results of this study, following suggestions were drawn: especially approach of senior management must guide creative factors in organizations. The senior management could provide supportive trainings, programs, courses, seminars, workshops and conferences to their employees in order to put creative characteristics forward within guidance. Organizations could integrate the organizational culture supporting creativity to all processes. They could utilize from available appropriate organizational development methods while performing this. Human resources department could apply various test methods which discover creativity factors during recruitment processes. Employees' creative behaviors could be rewarded in organizations so as to encourage other employees. Activities, programs and supports of institutions such as Teknokent which support creativity activities could be followed. Thus, additional resource could be obtained for activities planned to be implemented in organizations.

References:

Amabile, T. (1997). "Motivating Creativity In Organizations: On Doing What You Love and Loving What You Do", *California Management Review*, 40 (1), pp. 39-57.

Anoiko.(2011).*Creativity*.1105,2016tarihinde

https://oiko.files.wordpress.com/2011/03/2011_wiki_anoiko_creativity1.pdf inside.

Arık, A. (1987). *Yaratıcılık*. Ankara: Kültür ve Turizm Bakanlığı Yayınları.

Balay, R. (2010). Öğretim Elemanlarının Örgütsel Yaratıcılık Algıları. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 43, pp. 41-78.

Beheshtifar, M. and Zare, E. (2012). "Effect Perceived Organizational Support on Employees' Attitudes Toward Work", *Science Series Data Report*, 4 (9), pp. 28-34.

- Bentley, T. (2004). *Yaratıcılık (Creativity)*. İstanbul: Hayat Yayıncılık.
- Boden, M. (1998). "Creativity and Artificial Intelligence", *Artificial Intelligence*, 103 (1-2), pp. 347-356.
- Cengiz, E., Acuner, T. and Baki, B. (2006). "Liderlerin Sahip Oldukları Duygusal Zekânın Örgütsel Yaratıcılık Üzerine Etkileri: Bir Model Önerisi", *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7 (1), pp. 421-433.
- Chang, W. C, and Chiang, Z. H. (2007). "A Study on How to Elevating Organizational Creativity of Design Organization", The Hong Kong Polytechnic University: IASDR07 International Association of Societies of Design Research.
- Eder, P. and Eisenberger, R. (2008). "Perceived Organizational Support: Reducing the Negative Influence of Coworker Withdrawal Behavior", *Journal of Management*, 34 (1), pp. 55-68.
- Eisenberger, R., Fasola, P. and Davis-LaMastro, V. (1990). "Perceived Organizational Support and Employee Diligence, Commitment, and Innovation", *Journal of Applied Psychology*, 75 (1), pp. 51-59.
- Eisenberger, R., Huntington, R., Hutchison, S. and Sowa, D. (1986). "Perceived Organizational Support", *Journal of Applied Psychology*, 71 (3), pp. 500-507.
- Eren, E. and Gündüz, H. (2002), "İş Çevresinin Yaratıcılık Üzerindeki Etkileri Bir Araştırma", *Doğuş Üniversitesi Dergisi*, 5, pp. 65-84.
- Ford, C. M. (1996). "A Theory of Individual Creative Action in Multiple Social Domains", *Academy of Management Review*, 21 (4), pp. 1112-1142.
- Guilford, J. P. (1950). "Creativity", *American Psychologist*, 5 (9), pp. 444-454.
- İplik, E., İplik, F. N. and Efeoğlu, E. (2014). "Çalışanların Örgütsel Destek Algılarının Örgütsel Vatandaşlık Davranışı Üzerindeki Etkisinde Örgütsel Özdeşleşmenin Rolü", *International Journal of Economic and Administrative Studies*, 6 (12), pp. 109-122.
- Kapu, H. and Baştürk, F. (2009). "Yaratıcılık Tekniklerinin İşletme Eğitimindeki Yeri ve Önemi", *Sosyal ve Ekonomik Araştırmalar Dergisi*, 16, pp. 523-540.
- Koçel, T. (2015). *İşletme Yöneticiliği* (16th Edition). İstanbul: Beta Yayıncılık.
- Lee, D. S., Lee, K. C. and Jo, N. Y. (2013). Creativity and Job Stress in the Korean ICT Industry: TMX and CHS as Antecedents. R. Sharda, and S. Voss içinde, *Digital Creativity Individuals, Groups, and Organizations* (pp. 1-14). London: Springer.
- Mansfield, R. S., Busse, T. V. and Krepelka, E. J. (1978). "The Effectiveness of Creativity Training", *Review of Educational Research*, 48 (4), pp. 517-536.

- Marimuthu, M., Arokiasamy, L. and Ismail, M. (2009). "Human Capital Development and Its Impact on Firm Performance: Evidence from Development Economics", *The Journal of International Social Research*, 2 (8), pp. 265-272.
- McLean, L. (2005). " Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development" *Advances in Developing Human Resources*,7, pp. 226-246.
- Mumford, M. D. and Gustafson, S. B. (1988). "Creativity Syndrome: Integration, Application, and Innovation", *Psychological Bulletin*, 103 (1), pp. 27-43.
- Rhoades, L. and Eisenberger, R. (2002). "Perceived Organizational Support: A Review of the Literature", *Journal of Applied Psychology*, 87 (4), pp. 698-714.
- Runco, M. A. (2014). *Creativity Theories and Themes: Research, Development, and Practice* (2nd Edition). London: Elsevier Inc.
- Samen, S. (2008). "İşletmelerde Yaratıcılığın Önemi", *Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi* ,17 (2), pp. 363-378.
- Shalley, C. E., Gilson, L. L. and Blum, T. C. (2000). "Matching Creativity Requirements and the Work Environment: Effects on Satisfaction and Intentions to Leave", *The Academy of Management Journal*, 43 (2), pp. 215-223.
- Stamm, B. (2003). *Managing, Innovation, Design and Creativity*. England: John Wiley&Sons.
- Tan, A.-G. and Perleth, C. (2015). An Introduction to the Volume of Creativity, Culture and Development. A.-G. Tan, and C. Perleth içinde, *Creativity, Culture, and Development* (pp. 1- 2). Singapore: Springer.
- Ünal, A. (2002). "İşletmelerde İnsan Kaynaklarının Önemi, İnsan Kaynakları İşlevleri ve İnsan Kaynakları Yönetimi Sisteminde Ücretleme", *Kamu-İş*, 7 (1), pp. 1-19.
- Woodman, R. W., Sawyer, J. E. and Griffin, R. W. (1993). "Toward a Theory of Organizational Creativity", *The Academy of Management Review*, 18 (2), pp. 293-321.
- Yahyagil, M. Y. (2001). Örgütsel Yaratıcılık ve Yenilik. *Yönetim*, 12 (38), pp. 7-16.
- Yeloğlu, H. O. (2007). "Örgüt, Birey, Grup Bağlamında Yenilik ve Yaratıcılık Tartışmaları", *Ege Akademik Bakış*, 7 (1), pp. 133-152.
- Y1, X., Hu, W., Plucker, J. and Williams, J. (2013). "Is There a Developmental Slump in Creativity in China? The Relationship Between Organizational Climate and Creativity Development in Chinese Adolescents", *The Journal of Creative Behavior*, 47 (1), pp. 22-40.

- Yıldırım, E. (2007). "Bilgi Çağında Yaratıcılığın ve Yaratıcılığı Yönetmenin Önemi", *Selçuk Üniversitesi Karaman İ.İ.B.F. Dergisi*, 12 (9), pp. 109-120.
- Yoshimura, K. E. (2003). Employee Traits, Perceived Organizational Support, Supervisory Communication, Affective Commitment, and Intent To Leave: Group Differences (Degree of Masters of Science). North Carolina State University.
- Zang, Y., Farh, J.L. and Wang, H. (2012). "Organizational Antecedents of Employee Perceived Organizational Support in China: A Grounded Investigation", *The International Journal of Human Resource Management*, 23 (2), pp. 422-446.

Trilingual Education: An Effective Way of Providing Inclusion

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Abstract

The aim of this article is to study the problem of multilingual communication and the equal access to information which is relevant especially today due to the integration processes taking place in the world. Our society, just like other parts of the world, is interested in learning English. This is traceable to the fact that most people are now seeking to master the language. They have the highest communication value which is reflected in public documents such as SDPES (State Development Programme for Education and Science) for 2016-2019. These include the main trends of the development of trilingual education and the adopted Roadmap of trilingual education from years 2015-2020. Their aim is to ensure the gradual introduction of the trilingual education at all levels of education in Kazakhstan. In this regard, the MES developed a common strategy for training trilingual teachers. For example, from the perspectives of pedagogical university (Abai Kazakh National Pedagogical University), authors present the stages of implementation of the process based on the following priority areas: improving the legal and methodological framework; update of educational programs; the creation of a unified system of training; and professional development of teaching and administration staff.

Keywords: Education, multilingualism, inclusion, globalisation

Introduction

Ideas are acceptable as they explicitly or implicitly meet the society requirements and its social development. Therefore, the idea of three languages – cultural and linguistic strategy – announced by the President of the Republic of Kazakhstan, Nursultan Nazarbayev in 2004 shows a high

degree of understanding from the citizens. Also, it blends harmoniously into the agenda today. Nursultan Nazarbayev highlighted that a proper implementation of the language strategy will enable Kazakhstan to be well-known around the world as a country whose population is highly educated. Furthermore, the Kazakh language can also be used as the state language; Russian language as a language of international and regional communication; and English as the language that promotes successful integration into the global economy.

Current studies show that the spread of multilingualism in the world is a natural process due to fundamental changes in the economy, politics, culture, and education. Multilingualism has continued to be the dominant characteristic of modern countries by virtue and not only by simple pragmatism. Consequently, it develops a multilingual economy in the globalized world. However, this occurs due to the growing integration and migration processes on a global scale. Multilingualism becomes the leading factor which determines to a large extent the success of the business and professional spheres. It is difficult to imagine monolingual model of cultural and economic development of nations, striving for openness and dialogue with the world. Therefore, the known several languages is a steady demand of the modern society.

As it is known, UNESCO, in accordance with its mandate, has the responsibility to address issues related to language. UNESCO in 1999 by the General Conference adopted the 12th resolution which is authorizing the term "multilingual education". According to UNESCO, the term "multilingual education" concept involves the use of at least three languages in education. These languages are namely; the mother tongue (the first language of the learned), regional language, and an international language. This trilingual standard as was described in the installation document UNESCO (2002) is "Education in a multilingual world".

Subsequently, the solution of multilingual communication and equal access to information problem has become particularly relevant due to the integration processes taking place in the world as was already mentioned above. For instance, language policy and multilingualism have become priority issues in creating European Union and its further expansion. Thus, this has resulted in an inevitable extension of linguistic geography. In Europe today, in addition to the 24 official languages of the EU member states, it uses about 60 languages of nationalities living in there, as well as a number of languages spoken in Europe, labor and non-labor migrants. In 1995, the European Commission published an official report on the issues of education, in which the goal for trilingualism of all European citizens has been set. (EU Research, 2003). As we all know, the EU countries have

introduced legislation in 2008 from the experience of trilingual education. This is in a bid to promote languages as a tool for social integration.

The purposeful development of our country is characterized by a pronounced desire to build an open society which is ready for dialogue in the world. This intention is reflected in the foreign policy of Kazakhstan - pragmatic, multi-vector and balanced - focused on equal partnership. Our society, however, as the whole world, is primarily interested in learning English. Thus, this is because most people are seeking to learn the languages as it has the highest communication value. Having reckoned with the pragmatic-market nature of modern relationships, communication can be referred to as a cash value of languages and "career" expression.

Business, travel, science, and new technologies have chosen English as the negotiator. No one would dispute the fact that the most popular language among businessmen is English, followed by French and German. Many companies publish their documents and press releases only in these languages. Since the second half of the 20th century, we have witnessed the "triumphant march" of English language globally. There are approximately 500 million (according to some estimates - up to one billion) people who speak this language. 2 billion people are learning English worldwide and 87 nations have formally recognized it as a State language. As a result, this has defined the objective leading role of English language in the modern world today. According to the concept of the Dutch researcher, Alexander de Schwan, English "takes a hyper central place in the global constellation of languages", and its position is supported by the "self-development and self-expansion mechanisms".

The Higher Education World Declaration in the twenty-first century (UNESCO, 1998) emphasizes the importance of multilingualism in higher education under the following key; "the practice of multilingualism, teaching staff and students exchange program should be an integral part of all higher education systems" (Article 15). Independent Kazakhstan is rapidly bursting into the international community and has set ambitious goals towards not only the development of the economic sphere, but also education. The Republic of Kazakhstan was the first Central Asian country that has been recognized as a full member of the European Higher Education Area (2010). Currently, 49 countries are involved in a voluntary process of creating the European Higher Education Area, including Russia, Ukraine, and Belarus.

One of the main objectives of the Bologna process is the promotion of mobility by overcoming obstacles to the effective exercise of free movement. For mobility whether academic, labor, etc., besides all the institutional changes that are already under way in our country, one needs a good knowledge of a foreign language, in particular, English language. Therefore, a question of language learning, qualitative knowledge of which

is today is not an end in itself, and the requirement of time should be considered under the foreshortening of the commitments of the Bologna process. Also, a great desire for Kazakhstan to get into the “elite club” of the OECD countries should be added.

Consequently, it is of significant importance to view multilingual education from the perspective of sustainability and inclusion. The first involves a sustainable development which is focused on development, and it takes into account the planetary boundaries. The second is an inclusion. Some of the citizens related to the education system are connected to the world through their involvement with people with disabilities. However, this is not the complete picture of the inclusion in general. In addition, another meaning of the term “inclusion” is the need to involve the general population, without exception, in any development program. Simply put, the inclusion refers to equal opportunities and relationships without oblique views and comments. For example, inclusion in education seeks to develop a methodology aimed at the individual. Also, it recognizes the fact that all children are individuals with different learning needs. Inclusive education seeks to develop an approach to teaching and learning. However, this will be more flexible to meet the different training needs. Consequently, the word "inclusion" in politics means the ability of a particular political system to meet as much as possible the interests of all members of the society. This is in order to avoid destructive conflicts. However, multilingual education can also be considered to be an effective means of ensuring the inclusion of both education and through education.

The Constitution of the Republic of Kazakhstan, the Law of the Republic of Kazakhstan “On languages”, the Law “On education” (LERK, 2007), and the State Program for Development of Education and Science in 2016-2019 constitute the legal basis for multilingual education in the country (SPDES, 2016). Not so long ago, it was approved by the Road Map of the trilingual education for 2015-2020. Furthermore, the adoption of the road map is certainly an important step, but much more important is its implementation. With the advent of innovations, we expect the objective to experience difficulties.

On behalf of the Head of State and in accordance with the State Program for Development of Education and Science, the Ministry of Education and Science of the Republic of Kazakhstan since the 2007-2008 academic year have introduced training in three languages in 33 schools of Kazakhstan in a pilot mode.

Today, trilingual training is conducted in 110 schools. It covers 63 thousand (2.3%) students. In these schools, an in-depth study of the Kazakh / Russian and English languages, as well as the teaching of school STEM subjects in English was presented.

The implementation of these pilot programs aims to identify the problem of special training of teachers. In this regard, in 2008, the Ministry of Education has defined the basic institutions of higher education which is aimed at developing a common strategy for training trilingual teachers. From that moment, it began the first phase of targeted implementation of the trilingual education in Kazakhstan.

Therefore, with the 2012-2013 academic year, 32 universities opened special sections with instruction in English. In 2015-2016, a special compartment in English language training, as part of the trilingual education, was functioning in 42 universities. Furthermore, this was divided as follows: National universities 6, State 26, International 1, corporatized 7, and private 2. In 2015-2016, 2393 special groups were set up in which 18 006 people were trained. These people comprises of undergraduate 16 121, a master's degree 1662, and a doctorate degree 223.

Additionally, there were grouped teaching staff who knows and understand Russian, Kazakh, and English languages. At the bachelor's level, courses in English have been taught by 2121 teachers, 386 teachers who own a master's degree, and 145 teachers who own a doctorate degree.

Therefore, specialized language centers are functioning for the analysis of the language situation, and it provides methodological assistance to 30 universities.

The number of graduates that was trained in the framework of the trilingual education since 2008 has been by far 7907 people. Among them are undergraduate (6677 people), master degree (1230 people), and a doctorate degree (76 people).

The number of employed graduates, trained in the framework of the trilingual education, amounted to 4624 people (58.5%): bachelor's degree graduates (3522 people), master (1 102 people), and PhD (72 people).

In 17 universities, the training of students in the framework of the trilingual education in 2012 began. Thus, the first release was in the summer of 2016.

Since 2011, the Ministry of Education and Science initiated the Program of the improvement of the qualification. This is on the basis of pedagogical specialties of higher education institutions within JSC NCE Orleu.

According to the program for 2012-2015, 3,900 teachers have been trained in 38 universities of Kazakhstan, including 933 teachers abroad in partner universities (University of Newcastle, UK; University of Tsukuba, Japan; Valencia Polytechnic University, Spain; the Higher Technical Institute of Porto, Portugal; and the International Academy of Management and Technology, Germany) (Orleu, 2012/2015).

One of the main directions of the program, along with the study of new educational strategies, is trilingualism. It also includes the increasing pedagogical skills of teachers on the basis of global trends in education.

In order to promote trilingual education, the Ministry identified three priority areas:

1. Improving the regulatory and methodological framework;
2. The update of educational programs;
3. The creation of a unified system of training and professional development of teaching and administrative personnel.

Also, SDPES (State Development Programme for Education and Science) for 2016-2019 includes the main trends of the development of trilingual education and the adopted Roadmap of trilingual education for 2015-2020. Therefore, the aim is to ensure the gradual introduction of the trilingual education at all levels of education in Kazakhstan (MES, 2015).

The new SCSE (State Compulsory Standard of Education) at the level of higher education within the framework of the Road Map provides measures on amendments and additions to the curriculum and standards of higher education. This is based on the introduction of the first year of teaching high schools at least 20% of study subjects in the second language (for Russian offices - in the Kazakh language for the Kazakh branch - in Russian). Subsequently, the third course involves the teaching of at least 30% of the training cycles of the basic and majors in English. Thus, it can be stated that all levels of the education system of Kazakhstan today has accumulated some experience in trilingual education.

In Kazakhstan in the context of the trilingual education, there are no issues with a regional language which is the Russian language. Due to historical, cultural, and geopolitical factors, the Kazakh society is mainly dominated by the Kazakh-Russian bilingualism. This is really the same real competence in the two languages on a daily basis where a non-native language is used in everyday communication as actively as their mother tongue.

The difficulties were associated with the lack of the capacity of teachers with English-language competence. The world of education has become a famous phrase of Michael Barber, the author of education reform in the UK: "The school could not be better teachers working in it," because "the teacher cannot give the children something that does not own himself." Majority of our teachers speak English well enough to start on teaching STEM subjects. It is no secret that many of the qualified teachers are operating out of the "Soviet overcoat". The Soviet Union kept a completely closed and isolated life which is why foreign languages were simply not needed for people.

Nevertheless, we will need to start somewhere! If we want a teacher who will be able to cope with the task of trilingualism, we need to seriously reconsider the content of training and increase the sheer quality of the training of future teachers, as well as strengthen the training of teachers already working using OLIL-approach (object-language integrated learning). In addition, if we want to have pupils and students who will have the ability to learn new skills and acquire new knowledge throughout their lives, we need to introduce a culture of permanent self-education teachers.

Understanding the pros and cons of a globalizing world, the Kazakh people in their quest not to lose their roots, their culture, however, accepts the challenge of time. After all, the national revival in our turbulent times requires no circuit to itself. It also requires the disclosure of the communicative potential of its culture. Native languages in the context of UNESCO's standard of multilingualism are the main components of a quality education. In the message on the occasion of International Mother Language Day on February 22, 2016, UNESCO Director-General, Irina Bokova, stated that the importance of the mother tongue in the promotion of education helps in improving the quality of education and in ensuring access to education for all. Irina Bokova stated: "In a multilingual approach, native languages are a key component of the quality education, which in itself provides a framework for the empowerment of women and men and the successful development of modern societies" (UNESCO, 2016).

References:

Address of the President of the Republic of Kazakhstan Nursultan Nazarbayev to the nation. 19 March 2004.

Education in a multilingual world (2003). UNESCO, Paris.

European Union-supported educational research (1995-2003). BRIEFING PAPERS FOR POLICY MAKERS.

LERK (Law on Education of the Republic of Kazakhstan) (2007), Government of the Republic of Kazakhstan, № 319-III from July 27, 2007 (with amendments and supplements as for 18.02.2014)

MES (Ministry for Education and Science of the Republic of Kazakhstan) (2015). Roadmap of trilingual education for 2015-2020, Decree of the President of the Republic of Kazakhstan, No. 622 from November 5, 2015, Astana

Michael Barber & Mona Mourshed (2008). How the world's most improved school systems keep getting better.

National Report Kazakhstan (2010).

Official website of Orleu <http://ripkso.kz/en/page/57>

State Program for Development of Education and Science for 2016-2019. Astana, 2016

**World Conference on Higher Education (1998). Higher Education in the
Twenty-first Century Vision and Action. UNESCO Paris 5–9 October.
www.un.org/sustainabledevelopment/ru/2016/02**

Examining the Differences Between University Students' Levels of Resilience on Mindfulness, Psychological Distress and Coping Strategies

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Abstract

University students can face numerous stressors which can contribute to the development of psychological distress shown to be associated with decreasing completion and retention issues throughout Australian universities (Willcoxson, Cotter, & Joy, 2011). A positive predictor and outcome of successful student coping and adjustment to university and retention outcomes is resilience, the ability to cope in difficult situations and bounce back from adversity. Mindfulness has also been shown to promote resilience. The present study examined differences in psychological distress, mindfulness, and coping strategies (adaptive vs. maladaptive) in university students (N = 122) with high and low levels of resilience. The results of a one-way MANOVA were consistent with hypotheses, revealing higher resilience scores were associated with greater mindfulness, higher adaptive coping scores, lower maladaptive coping, and reduced psychological distress. Students in the low resilience group were also found to have significantly lower levels of mindfulness, higher levels of psychological distress, reduced use of adaptive coping, and greater use of maladaptive coping, when compared to students with high resilience levels. Overall, findings of the current study are consistent with previous research and highlight the potential benefit of mindfulness-based coping interventions to foster resilience in university students.

Keywords: Resilience, Mindfulness, Coping, Psychological Distress

Introduction

Attending university is widely acknowledged to be a stressful psychosocial event, as students navigate the process of adapting to new social and educational environments. Often students successfully achieve the transition to university, some individuals experience long-term emotional maladjustment and depressive symptomatology (Gall, Evans, & Bellerose,

2000; McCann & Hicks, 2011). Unfortunately, this can result in students withdrawing from their studies, with a considerable number of these students failing to return to university to obtain higher education (Willcoxson, Cotter, & Joy, 2011).

In recent years, Australian universities have faced numerous challenges including reduced funding, growing competition, increased student diversity, and changes to higher education policy. As a result, student retention rates have become an issue, particularly when the attrition rate experienced by Australian universities between 2001 and 2011 was approximately 20 percent per annum (Department of Industry, 2013). This is not only a considerable concern at an individual and societal level, but also represents a significant threat to institutional finances.

As a result, there has been considerable focus on identifying and understanding the factors pertinent to student retention, including university specific factors (e.g., academic and social support, student engagement, social climate) and intra-individual factors such as resilience. By gaining a greater understanding of the factors and qualities that may promote positive adjustment and successful transition into the university environment, despite risk and adversity, it is hoped retention rates can be increased through offering students additional support in these areas.

Resilience has been associated with the motivational drive to recover from adversity, highly disruptive events, and maintain a relatively stable, healthy level of psychological and physiological functioning (Abbott, Klein, Hamilton, & Rosenthal, 2009; Herrman, Stewart, Diaz-Granados, Berger, Jackson, & Yuen, 2011; Steinhardt & Dolbier, 2008). Definitions of resilience in university environments have focused on indicators of success and achievement, with recent research considering resilience as the ability to succeed in spite of difficulties (Munro & Pooley, 2009; Sarwar, Inamullah, Khan, & Anwar, 2010).

Demanding workloads, academic pressure, social changes, financial responsibilities and balancing work/life demands have the potential to act as acute stressors for university students (McCann & Hicks, 2011; Park & Adler, 2003). Research has clearly demonstrated that increased resilience improves an individual's ability to handle and recover from setbacks and challenges (Abbott et al., 2009; Reivich & Shatte, 2002). In general, developing positive human strengths and enhancing resilience has been associated with reductions of psychological distress, particularly anxious and depressive symptomatology (Steinhardt & Dolbier, 2008).

Researchers suggest that resilience is not a set trait, preferring to consider the concept as a developmental process that can be enhanced by learning underlying skills or strengthening protective factors associated with resilience (Cooper, Flint-Taylor & Pearn, 2014). Among university students

resilience has been shown to be a significant and unique predictor of successful coping (McLafferty, Mallett & McCauley, 2009); and higher levels of resilience associated with lower levels of psychological distress (Abbott et al., 2009; Steinhardt & Dolbier, 2008).

Previous research has indicated, university students are a population vulnerable to experiencing high levels of perceived stress and psychological distress (Larcombe et al., 2016; Stallman, 2008; 2010). According to Stallman (2010), psychological health problems that result from elevated stress, anxiety, and depression are also most frequently observed between the ages of 18 to 34 years. Interestingly, this is the target age group that the Australian government is focused on to improve tertiary education outcomes over the next 15 years (Australian Government, 2009). In addition to the younger generation of students, who may experience difficulty transitioning from high school to the university environment, mature aged university students also experience a range of stressors including the competing demands of family, university and work commitments, and financial pressures (Paspaliaris & Hicks, 2010; Stallman, 2010). Research suggests building resilience in university students (both younger and mature-aged students) would prevent impairment, given the association between higher levels of resilience and lower levels of psychological distress demonstrated in various studies (Abbott et al., 2009; McCann & Hicks, 2011; Steinhardt & Dolbier, 2008). However, despite the need to identify and foster the resilience of university students, few studies have explored the resilience characteristics of university students.

Mindfulness is a skill that enhances adaptive coping in response to stressful events via self-regulation of attention toward the immediate experience and fostering an openness and acceptance toward an individual's experience in the present (Bishop et al., 2004). Previous research has demonstrated many positive outcomes associated with enhanced mindfulness, particularly improvement of psychological well-being, mood regulation (Brown & Ryan, 2003; Kabat-Zinn, 1990) and resilience (Coholic, 2011; Orzech, Shapiro, Brown & McKay, 2009).

Coping is defined as a psychological process in which an individual attempts to manage external or internal demands (Lazarus & Folkman, 1984), through a range of positive (e.g., problem solving, seeking social support, reappraisal) and negative (e.g., avoidance, aggression) strategies (Sinha, Willson & Watson, 2000). According to Sullivan (2010), academic coping strategies are generally categorized into three groups: approach (i.e., active attempts to change or prepare for the emotional reaction of a stressful event), avoidance (i.e., no genuine attempt to acknowledge or prepare for the perceived stressor), and social support (i.e., obtaining support from others to assist with the problem or manage the emotional response). Among

university students research has shown that avoidant coping strategies have been associated with low psychological well-being and adaptive coping strategies (e.g., positive reappraisal and planned problem solving) were associated with greater psychological well-being (Park & Adler, 2003).

The current study aimed to expand our understanding of the characteristics of resilience in university students by examining the differences between students reporting high and low resilience on mindfulness, psychological distress and academic coping strategies. It was predicted that in comparison to university students reporting a high level of resilience, university students with a low level of resilience would report significantly higher levels of psychological distress, lower levels of mindfulness, a greater number of maladaptive coping strategies, and fewer adaptive coping strategies.

Participants were university students ($N = 122$) from a range of Australian universities, aged 18 to 47 years ($M = 23.52$, $SD = 6.90$), who were currently enrolled in tertiary level education. Males comprised 18 percent of the sample ($n = 22$), while females comprised 82 percent ($n = 100$). Of the 122 students, the majority ($n = 100$) were undertaking undergraduate studies (82%), while 10 (8.2%) were completing post-graduate courses, six (4.9%) were enrolled in a university foundation program, four (3.3%) were undertaking a masters degree, and two (1.6%) were completing a PhD.

The Resilience Factor Inventory (RFI; Reivich & Shatte, 2002) was used to measure resilience. The RFI is a self-report scale, comprised of 60-items measuring an individual's current level of resilience across seven domains of resilience. For the purpose of analysis an average score was used, which functioned as an overall resilient quotient (RQ). A higher score was indicative of a greater level of general resilience. Each RQ was then classified as high or low by visual binning of the scores. Using a mean RQ score of 61.43, high ($n = 59$) and low ($n = 63$) resilience groups were created from the continuous scale variables. According to Reivich and Shatte (2002), the RFI is a valid and psychometrically sound instrument with established criterion and predictive validity.

The Depression Anxiety Stress Scales (DASS-21; Lovibond & Lovibond, 1995) was utilized to measure psychological distress across three domains, depression, anxiety and stress. Although the three-factor structure of the DASS-21 has been supported in previous research, some research has also indicated an overall level of psychological distress can be measured by calculating a total scale for the entire scale. Higher scores were indicative of greater psychological distress. Previous research has found the DASS-21 to be a valid and psychometrically sound instrument (Antony, Bieling, Cox, Enns, & Swinson, 1998; Brown, Chorpita, Korotitsch, & Barlow, 1997).

The Academic Coping Strategies Scale (ACSS; Sullivan, 2010) is a self-report scale that measures how frequently a college student endorses a particular coping strategy within the context of a specific academic stressor. The ACSS consists of 34-items evaluating three coping strategies: approach coping (15 items), avoidance coping (11 item), and social support coping (8 items). Consistent with Sullivan (2010), the mean scores of the approach and social support subscales were summed and divided by two to create adaptive coping. The mean score of the avoidant subscale was renamed maladaptive coping, as recommended by Sullivan (2010). Higher scores for each of the subscales were indicative of a greater endorsement of a particular coping strategy. Research indicates the ACSS is a valid and psychometrically sound instrument with good internal consistencies for the three subscales .91, .82. and .81, respectively.

Participants were recruited through various advertisements, including an information sheet on a university research board and announcements on social media network sites. Respondents were then contacted via email and provided a link to the online questionnaire. Once informed consent was obtained, participants were asked to complete a series of demographic items and a range of psychometric questionnaires measuring levels of resilience, mindfulness, psychological distress, and academic coping.

The data were analysed using SPSS version 22. An alpha level of .05 was utilised to determine the statistical significance of all results. Pearson-product bivariate correlations were performed to examine the simple relationships amongst the key variables of interest. As can be seen in Table 1, moderate significant correlations were observed between all key variables, with the exception of a negative association between mindfulness and maladaptive coping strategies, which failed to reach significance. The highest correlation was observed between resilience and mindfulness. Resilience was also significantly and moderately correlated with adaptive coping and significantly negatively correlated with maladaptive coping. A significant inverse relationship was observed between resilience and psychological distress. Mindfulness and adaptive coping were significantly associated, while mindfulness and psychological distress were significantly negatively correlated. As expected, a significant positive relationship was observed between psychological distress and maladaptive coping and a significant inverse relationship was found between psychological distress and adaptive coping.

Table 1
Intercorrelations between Resilience, Adaptive and Maladaptive Coping, Mindfulness and Psychological Distress (N = 122).

Variable 1	2	3	4	5	
1. Resilience	–				
2. Adaptive Coping	.35**	–			
3. Maladaptive Coping	-.40**	-.13	–		
4. Mindfulness	.50**	.35**	-.09	–	
5. Psychological Distress	-.39**	-.18*	.38**	-.43**	–

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

A one-way between-subjects multivariate analysis of variance (MANOVA) was performed to test the hypothesis that levels of mindfulness, academic coping strategies, and symptomatology of psychological distress would be significantly different between the high resilience and low resilience student groups. With the use of Wilk's criterion, a statistically significant multivariate main effect was observed for group $F(4, 116) = 10.48$, $p < .001$, $\eta^2 = .27$, power = 1.00, indicating the two levels of resilience differed on the four dependent variables (mindfulness, psychological distress, adaptive coping strategies, and maladaptive coping strategies) combined.

Univariate analyses revealed a significant difference between groups on mindfulness $F(1, 119) = 19.48$, $p < .001$, $\eta^2 = .14$, power = .99. As expected, university students with low resilience reported significantly lower levels of mindfulness ($M = 32.89$, $SD = 5.53$), compared to university students with high resilience ($M = 37.81$, $SD = 6.72$). Univariate analyses revealed a significant difference between groups on psychological distress $F(1, 119) = 12.04$, $p = .001$, $\eta^2 = .09$, power = .93, with students with low resilience levels reporting significantly greater levels of psychological distress ($M = 36.13$, $SD = 23.24$) compared to students with high resilience ($M = 23.25$, $SD = 16.91$). Univariate analyses revealed a significant difference between groups on adaptive coping $F(1, 119) = 10.30$, $p = .002$, $\eta^2 = .08$, power = .89. As expected, adaptive coping strategies were significantly lower in students with a low level of resilience ($M = 3.20$, $SD = .48$), compared to students reporting high resilience ($M = 3.47$, $SD = .43$).

Univariate analyses also revealed a significant difference between groups on maladaptive coping $F(1, 119) = 22.33$, $p < .001$, $\eta^2 = .16$, power = .98. Consistent with expectations, students with low resilience levels reported significantly higher scores on the maladaptive coping strategy subscale ($M = 3.01$, $SD = .46$), compared to students in the high resilience group ($M = 2.64$, $SD = .40$).

The present study contributes to the growing body of literature investigating potential intra-individual characteristics that may impact successful transition in tertiary education settings. The results, which supported the prediction, indicated a significant proportion of the variance in the resilience of university students was accounted for by mindfulness, academic coping strategies, and psychological distress. Consistent with previous research (e.g., Foureur, Besley, Burton, Yu & Crisp, 2013; Lightsey, 2006; Orzech et al., 2009), a significant positive relationship between resilience and mindfulness was observed, with higher resilience related to greater levels of mindfulness. Resilience was also significantly associated with adaptive academic coping, in line with previous research (e.g., McLafferty et al., 2009), which demonstrated that higher rates of resilience were the best predictor of successful coping in university students.

A significant positive association was also found between mindfulness and adaptive coping strategies, indicating higher levels of mindfulness were associated with adaptive coping strategies. This finding is reflective of current literature suggesting mindfulness fosters rational coping styles, which are viewed as adaptive (Palmer & Rodger, 2009). Palmer and Rodger (2009) also found mindfulness was significantly and inversely related to maladaptive coping strategies such as avoidant coping styles; however, no significant association between mindfulness and maladaptive coping strategies was observed in the current study, inconsistent with expectations. Mindfulness and psychological distress were found to be significantly and negatively correlated, consistent with the positive outcomes associated with enhanced mindfulness detailed in previous research (Brown & Ryan, 2003; Kabat-Zinn, 1990; Palmer & Rodger, 2009).

A significant inverse relationship was observed between resilience and psychological distress (depression, anxiety, and stress). This finding was consistent with previous research that demonstrated a significant association between increased resilience and prevention of depression, anxiety, and adjustment disorders (Gillham et al., 2006). A negative association was also observed between psychological distress and adaptive academic coping strategies and a positive association with maladaptive academic coping strategies. These findings were also consistent with previous literature reporting individuals with less psychological distress utilise more adaptive coping strategies, whereas individuals with a higher level of depression, anxiety, and stress report use of more maladaptive coping strategies (Holahan & Moos, 1987; Watson & Sinha, 2008).

When examining the differences in mindfulness, psychological distress, and coping strategies (adaptive and maladaptive) in students with high levels of self-reported resilience compared to students with low levels of self-reported resilience, significant effects were observed for each

dependent variable. As expected, significantly lower levels of mindfulness were reported in the low resilience group. Previous research conducted by Coholic (2011) suggested that mindfulness acts as a protective characteristic that facilitates resilience; therefore it is possible a low level of resilience may be partially attributed to lack of mindfulness. This finding also supports the suggestion resilience can be enhanced by bolstering positive characteristics associated with resilience, such as mindfulness, highlighting the potential benefit of mindfulness-based programs for university students at a prevention and treatment level.

Significantly higher levels of psychological distress were also observed in the low resilience group, supporting the association between resilience and psychological well-being in literature (Abbott et al., 2009; Steinhardt & Dolbier, 2008). Furthermore, university students with low resilience were also found to endorse a significantly greater level of maladaptive coping strategies and significantly less adaptive coping strategies than the university students who reported high resilience. These findings were consistent with McLafferty et al. (2009), which found an association between increased resilience and successful coping in academic settings. Considered in combination with previous research, the present findings highlight the potential benefit of mindfulness-based coping interventions to foster resilience in university students experiencing multiple stressful demands and may be at risk of prematurely exiting the university environment.

Previous research demonstrated that resilience training and interventions need not be lengthy or time consuming (Abbott et al., 2009). As internet access is readily available at all universities, delivering resilience training online provides a flexible and cost-effective option. However, additional research is required to evaluate the effectiveness of internet-based resilience training (Abbott et al., 2009). Undoubtedly, the stress of university life may inhibit students' availability to dedicate an appropriate amount of time to such a program and communicating the importance and benefits of resilience is also likely to be challenging. Additional studies may be required to determine the most effective method to promote adherence and increase student's motivation to undertake a resiliency-training program.

Despite the promising findings from the current study, certain limitations are noted. First, participants' previous experience with mindfulness and meditation was not taken into account. Research has indicated frequent meditation is significantly associated with higher levels of mindfulness (Brown & Ryan, 2003; Walach et al., 2006); therefore it is possible this may have affected results and should be controlled for in future studies. Second, although a-priori power analyses using G*Power indicated the sample size was adequate for power and capable of detecting a large

effect, the sample size was small and is unlikely to be representative of the wider student population across Australia. However, results were consistent with previous studies. Future research should attempt to investigate resilience in university students using a larger national sample to increase external validity.

Overall, the current study has revealed university students with a higher level of resilience reported significantly higher levels of mindfulness, greater use of adaptive coping strategies, reduced maladaptive coping, and lower levels of psychological stress, when compared to students with low resilience levels. These findings provide preliminary insight into the potential benefits of cultivating resilience in university students (possibly via on-campus or online programs) and facilitating adaptive coping strategies and mindfulness, which are intrinsically linked to navigating change and adversity without the deleterious effects of psychological distress.

References:

- Abbott, J., Klein, B., Hamilton, C., & Rosenthal, A. (2009). The impact of online resilience training for sales managers on wellbeing and work performance. *Electronic Journal of Applied Psychology*, 5, 89-95. doi:10.7790/ejap.v5i1.145
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M.W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the depression anxiety stress scales in clinical groups and a community sample. *Psychological Assessments*, 10, 176-181. doi:10.1037/1040-3590.10.2.176
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J. et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11, 230-241. doi:10.1093/clipsy.bph077
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822-848. doi:10.1037/0022-3514.84.4.822
- Buchheld, N., Grossman, P., & Walach, H. (2001). Measuring mindfulness in insight meditation (vipassana) and meditation-based psychotherapy: The development of the Freiburg Mindfulness Inventory (FMI). *Journal for Meditation and Meditation Research*, 1, 11-34.
- Coholic, D. (2011). Exploring the feasibility and benefits of arts-based mindfulness- based practices with young people in need: Aiming to improve aspects of self-awareness and resilience. *Child and Youth Care Forum*, 40, 303-317. doi:10.1007/s10566-010-9139-x
- Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology*, 14, 241-257. doi:10.1007/BF00911173

- Cooper, C. L., & Flint-Taylor, J., & Pearn, M. (2014). *Building resilience for success*. Basingstoke, UK: Palgrave Macmillan
- Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education. (2013). *Statistical publications: Appendix 4 - attrition, progress and retention*.
- Foureur, M., Besley, K., Burton, G., Yu, N., Crisp, J. (2013). Enhancing the resilience of nurses and midwives: Pilot of a mindfulness-based program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemporary Nurse*, 45, 114-125. doi:10.5172/conu.2013.45.1.114
- Gall, T. L., Evans, D. R., & Bellerose, S. (2000). Transition to first-year university: Patterns of change in adjustment across life domains and time. *Journal of Social and Clinical Psychology*, 19, 544-567. doi:10.1521/jscp.2000.19.4.544
- Gillham, J. E., Hamilton, J., Freres, D. R., Patton, K., & Gallop, R. (2006). Preventing depression among early adolescents in the primary care setting: A randomized controlled study of the Penn Resiliency Program. *Journal of Abnormal Child Psychology*, 34, 203-219. doi:10.1007/s10802-005-9014-7
- Herrman, H. D. E., Stewart, M. D., Diaz-Granados, N., Berger, E. L., Jackson B., & Yuen, T. (2011). What is resilience? *Canadian Journal of Psychiatry*, 56, 258-265.
- Holahan, C. J., & Moos, R. H. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology*, 52, 946-955. doi:10.1037/0022-3514.52.5.946
- Jackson, S., & Connelley, J. (2009). *Student perceptions and experiences of counseling*. Brisbane: The University of Queensland
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Bantam Dell.
- Larcombe, W., Finch, S., Sore, R.....et al. (2016). Prevalence and socio-demographic correlates of psychological distress among university students at an Australian university. *Studies in Higher Education*, 41, 1074-1091. doi: 10.1080/03075079.2014.966072.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer Publishing Company Inc.
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales*. Sydney: Psychology Foundation of Australia.
- McLafferty, M., Mallett, J., & McCauley, V. (2012). Coping at university: The role of resilience, emotional intelligence, age and gender. *Journal of Quantitative Psychological Research*, 1, 1-6.
- Munro, B., & Pooley, J. A. (2009). Differences in resilience and university adjustment between school leaver and mature entry university students. *The Australian Community Psychologist*, 21, 50-61.

- Orzech, K. M., Shapiro, S. L., Brown, K. W., & McKay, M. (2009). Intensive mindfulness training-related changes in cognitive and emotional experience. *The Journal of Positive Psychology: Dedicated to furthering research and promoting good practice*, 4, 212-222. doi:10.1080/17439760902819394
- Palmer, A., & Rodger, S. (2009). Mindfulness, stress and coping among university students. *Canadian Journal of Counselling*, 43, 198-212. doi:
- Park, C. L., & Adler, N. E. (2003). Coping style as a predictor of health and well-being across the first year of medical school. *Health Psychology*, 22, 627-631. doi:10.1037/0278-6133.22.6.627
- Reivich, K., & Shatte, A. (2002). *The resilience factor: 7 keys to finding your inner strength and overcoming life's hurdles*. New York: Crown Publishing Group
- Sarwar, M., Inamullah, H., Khan, N., & Anwar, N. (2010). Resilience and academic achievement of male and female secondary level students in Pakistan. *Journal of College Teaching and Learning*, 7, 19-24.
- Sinha, B. K., Willson, L. R., & Watson, D. C. (2000). Stress and coping among students in India and Canada. *Canadian Journal of Behavioural Science*, 32, 218-225. doi:10.1037/h0087118
- Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, 45, 249-257. doi:10.1080/00050067.2010.482109
- Steinhardt, M., & Dolbier, C. (2008). Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomology. *Journal of American College Health*, 56, 445-453. doi:10.3200/JACH.56.44.445-454
- Sullivan, J. R. (2010). Preliminary psychometric data for the Academic Coping Strategies Scale. *Assessment for Effective Intervention*, 35, 114-127. doi:10.1177/1534508408327609
- Walach, H., Buchheld, N., Buttenmuller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness: The freiburg mindfulness inventory (FMI). *Personality and Individual Differences*, 40, 1543-1555. doi:10.1016/j.paid.2005.11.025
- Watson, D. C., & Sinha, B. (2008). Emotion regulation, coping, and psychological symptoms. *International Journal of Stress Management*, 15, 222-234. doi:10.1037/1072-5245.15.3.222
- Willcoxson, L., Cotter, J., & Joy, S. (2011) Beyond the first year experience: the impact on attrition of student experiences throughout undergraduate degree studies in six diverse universities. *Studies in Higher Education*, 36, 331-352. doi:10.1080/03075070903581533

Cultivating a Community of Change Through the Implementation of Shared Leadership Theory

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Abstract

In an effort to move toward a Shared Leadership Model, the researcher's university administration directed all faculty and support staff to foster initiatives which promoted cross departmental research and collaboration. This study defines how pilot programs, in particular the New Faculty Induction program, were aligned with the framework of Shared Leadership and fostered the domains of Social Cohesion among participants.

Keywords: Shared Leadership, faculty vitality, Learning Organizations, Social Cohesion

Introduction

In higher education, it is a given that the recruitment process of hiring new faculty requires much time and financial commitment on both the candidate and institutions; therefore, it is essential that an orientation system be designed to move the new hire through the "honeymoon" phase and toward a path of contributing to the greater good of the institution. According to Camblin and Steger (2000), the new approach to initiating new faculty is focused on (1) addressing issues of vitality and ongoing personal awareness, (2) providing opportunities to foster relationships among colleagues, (3) developing purposeful ways to support the institution's mission, and (4) providing support to new faculty during the tenure and promotion process (p. 5).

For the researcher's institution, the previous new faculty program was a series of monthly meetings facilitated by two assigned faculty members. In each fifty minute session, participants were presented detailed policies and procedures along with tenure and promotion materials. Most information was accessible in an online LMS system along with overviews of the resources. Given the brief assigned meeting time, little to no faculty engagement occurred between the new professors and the committee facilitators. New faculty questions were often addressed via email and follow up discussion, between sessions, was not occurring.

Shared Leadership

Prior to the early 1990's, Sullivan notes the primary focus of new faculty development placed emphasis on advancement of subject matter and mastery of one's own teaching (as cited by Camblin & Stenger, 2000, p.3). With the changing landscape of college during the Vietnam War, declining enrollment, altered work expectations and rising costs of tuition created a paradigm shift in new faculty development. According to Schuster (1990) faculty development moved from survival within one's discipline to a broader, communal approach. University administration began to emphasize a new focus on personal, professional and organizational growth. Faculty development programs which were once centered on member's field of study acknowledged the importance of "... faculty wellness and institutional quality of life and opportunities for personal growth and career renewal" (Hageseth and Atkins 1988; North 1991 as cited in Hubbard and Atkins 1995, p. 120).

With growth comes change and for new faculty at the researcher's institution, this change was manifested through a university wide vision of Shared Leadership. O'Toole, Galbraith, & Lawler (2002) offer that leadership is not only defined as individual, but is also an institutional trait; complex at times, Shared Leadership enables institutions to divide responsibility and match individual strengths to the initiatives and mission of a community. "Shared leadership is facilitated by an overall team environment that consists of three dimensions: shared purpose, social support, and voice" (Carson, Tesluk, & Marrone, 2007 p. 1222).

This ideology of Shared Leadership was first introduced upon the procurement of a new dean in 2010. The Dean defined his perception of leadership as a desire to move away from the traditional top down model of decision making or "a team property whereby leadership is distributed among team members rather than focused on a single designated leader" (Carson et al., 2007, p.1217). Pearce (2007) offers the following analysis, "As organizations have steadily progressed into the knowledge economy we can no longer rely on simple notions of top-down, command-and-control leadership, based on the idea that workers are merely interchangeable drones" (p. 355).

This process did not come easily in the beginning. Senior faculty questioned the motivation and expressed concern that without a specific "chain of command" important tasks and faculty welfare could be undermined. O'Toole et al. (as cited by Kocolowski, 2010) believed that resistance stems "from thousands of years of cultural conditioning" (p. 64) and further offer, "We are dealing with a near-universal myth: in the popular mind, leadership is always singular" (p. 64). However, with a continued effort to create committees that were cross disciplinary and cross departmental, university employees were introduced to the Shared

Leadership framework and individuals were encouraged to share leadership within their own professional departments. The following are examples of programs that evolved.

1. *Community Conversations*: a series of open meetings where support staff and faculty participated in purposeful brainstorming sessions to address the future vision and development of the university.
2. *Onboard*: A program designed for all new support staff; new faculty were also included but not required to attend. This program focused on fostering a deeper knowledge of the institution's mission and religious identity.
3. *Strategic Planning Survey*: a survey provided for each employee to contribute ideas, thoughts, and perspectives toward shared work. From this, Task Force "think tanks" were created to address campus concerns and offer strategic planning to the board.

As this new formula for collaboration began to permeate each area of the university, a common dialog of best practices for Shared Leadership began to manifest itself in committee assignments and departmental initiatives. The researcher proposes that for Shared Leadership to work there must be buy in. Individuals need to be affirmed that their perspectives and ideas are being taken seriously and that each employee has a part to play in the advancement of the defined goals. New perspectives are acknowledged and leaders can utilize their individual strengths (Miles & Watkins, 2007); thus allowing for decisions making to be fluid and reciprocal (Bligh, Pearce, and Kohles, 2006).

Social Cohesion

The vetting of and hiring process for a new faculty member can be an arduous endeavor. Therefore, the ability to attract and retain new faculty requires a purposeful plan of action. New faculty need to be acclimated early in hopes of creating a positive Social Cohesion experience. According to Dr. Heyneman (2002), "School culture refers to the rituals embedded in social relationships, ceremonies and traditions that attach members to the school and its mission, and to the norms and beliefs that guide the actions of members" (p. 89). One significant contributing factor to positive Social Cohesion is the acceptance of and new faculty member's ability to embrace and contribute to the culture. This assimilation is often referred to as social contracts. Social contracts are the values and metaphysical/ philosophical assumptions of a collective society (Pirili & Pifpirili, 2015, p.253). Heyneman (2002) proposes that people will overall adhere to social contracts under certain conditions. If they do not consider themselves as cultural "strangers" or do possess an understanding of each other as people; then where norms and expectations govern social contracts are embraced."

Forrest and Kearns (2001) offer the following table to define the domains of Social Cohesion.

Table 1. The Domains of Social Cohesion

Domains	Descriptions
Common values and a civic culture	Common aims and objectives; common moral principles and codes of behavior; support for political institutions and participation in politics.
Social order and social control	Absence of general conflict and threats to the existing order; absence of incivility; effective informal social control; tolerance; respect for difference; intergroup cooperation.
Social solidarity and reductions in wealth disparity	Harmonious economic and social development and common standards; redistribution of public finances and of opportunities; equal access to services and welfare benefits; ready acknowledgement of social obligations and willingness to assist others.
Social networks and social capital	High degree of social interaction within communities and families; civic engagement and associational activity; easy resolution of collective action problems.
Place attachment and identity	Strong attachment to place; intertwining of personal and place identity.

Methodology and research Questions

This qualitative case study uses an action research design with descriptive pattern coding techniques (Saldana, 2009) applied to the data. Berg (2007) defines action research as “a method of research in which creating a positive social change is the predominant force driving the investigator and the research” (p. 224). Yukl (2006) suggests (as cited in Kocolowski, 2010, p.24) that “important decisions about what we do and how to do it are made through the use of an interactive process involving many different people who influence each other.”

Research Question 1 (RQ1#)

Does new faculty have a clear understanding of the university policies?

Research Question 2 (RQ2#)

Does new faculty feel they belong to a cohort and perceive the university as a community?

Research Question 3 (RQ3 #)

Would purposeful activities that create a cohort atmosphere foster Shared Leadership and collaboration between departments?

Participants

Table 1.

New Faculty	Department
Participant 1 (Male)	Philosophy Department
Participant 2 (Male)	Nursing Department
Participant 3 (Male)	Political Science Department
Participant 4 (Male)	Engineering Department
Participant 5 (Male)	Biology
Participant 6 (Male)	Theology
Participant 6 (Female)	Psychology
Participant 6 (Female)	Education
Participant 7 (Female)	World Languages

Survey Results

The results of the survey can be seen in Table 2 accompanied by new faculty extended responses. Six of the seven new faculty participated in the survey conducted after the spring semester.

Table 2.

Survey Question	Social Cohesion Domains	New faculty Feedback
What meeting topics did you find most beneficial? Do you have suggestions for this year?	Common Values and Civic Culture	<p>“The specific topics that were the most beneficial were faculty rating, IDEAs, development funds, etc. I suggest including a session on teaching strategies (methods and effectiveness) and let this end with a discussion among the committee members of what has worked well for them.”</p> <p>“All of them were beneficial but I did feel that I learned a lot from the meeting regarding advising and scheduling.”</p>
Did you feel your questions were answered in a timely manner? Did you feel our meetings built a sense of community that will serve your needs in	Social Networks and Social Capital	<p>“Absolutely. And the lunches really helped the sense of community.”</p> <p>“yes - the sense of community was the best part of this committee.”</p>

the future?		
<p>One goal of the committee was to create opportunities to meet others on campus that you may not have contact with your first year.</p> <p>Do you have suggestions of other ways to foster professional collaboration?</p>	Place Attachment and Identity	<p>“I came in in the Spring term, but I would have liked to meet more older faculty at various socials.”</p> <p>“ I definitely think you achieved this goal. Maybe one other thing to add is a chance for each new person (or even second year when you have had more of a chance to get adjusted) present on their research and writing (maybe a 10-minute summary of what you've done & are working on now.”</p> <p>“ Perhaps pair up the new faculty with a mentor teacher or a go to person he or she can ask questions of throughout the year although that seemed to be the purpose of the committee so maybe that isn't necessary.”</p>

Discussion and Findings

Results of the study support the importance of placing value into fostering shared experiences for new hires. New faculty expressed the following positive outcomes from participating in the pilot program: (1) participants stated their perception of transitioning into the university's community and their own departments was less stressful, (2) participants communicated that the new policies were defined and that their questions were welcomed and , (3) participants acknowledged they were provided opportunities to establish relationships with support staff and faculty outside their discipline; thus fostering their Social Cohesion and participation in unspoken *social contracts*. Topics presented during the first year were as follows: advising, Student Success Council, purpose of the Core and implications for transfer students, Academic Council Request form (ACRF), yearly evaluations, promotion and tenure, the process of offering summer courses and accessing professional development funds.

Each informational session was offered the last Monday of the month with a luncheon, provided on Wednesday, of the same week. Questions in regards to the Monday's topic were welcomed along with short presentations delivered by invited guests from the many campus departments. Wednesday speakers were chosen based on exposure of the new faculty to their department's campus resource or connections to the Monday topic. New professors were exposed to the library support staff and resources for faculty and students, Career Services and the program's offered to students on

campus, the Assessment and Accreditation process and how new faculty may contribute within their department and the interpretation of their own evaluation data for tenure and promotion, bookstore support staff and submitting textbook orders, summer course creation and the online procedures for offering courses, technology support, student life, registrar and support staff, study abroad and senior faculty mentoring.

Through the process of redefining the committee structure and the intentional acclimation of new faculty as an active part of the university community, the researcher proposes Shared Leadership was introduced and encouraged. For example, within the first year of the pilot, Education and Engineering faculty collaborated to create a cross curricular STEM exposition for local private and public schools.

Within the survey questions, it is noted that new faculty desired to be afforded the opportunity to associate with senior faculty at more University sponsored events. As a part of the Shared Leadership theory, a committee of support staff and faculty was formed to address the concerns. From this committee's survey, the traditional opening semester meeting was changed to a subsequent date and venue on campus. Faculty were encouraged to invite their families; thus enabling new faculty with young children to attend. Senior faculty had noted on the survey they would appreciate the opportunity to bring their spouses which was also honored. The revision of this networking opportunity embraced the Shared Leadership model of institutional *wellness of life* and the Social Cohesion domain of *social networks* and *place attachment and identity*.

The Shared Leadership model was also an ongoing catalyst for the finalization of a Core curriculum. This institutional initiative required departmental cross curricular committees and challenged all departments to articulate how their pedagogical and assessment practices would fulfill the mission of the University's "Core". Adoption of the Core curriculum has fostered the Shared Leadership model by placing less emphasis on one department over another. Decisions in regards to student graduation pathways became rooted in a shared experience and departments began collaborating to enable transfer students and freshmen a unified education within their chosen disciplines. This example of Shared Leadership has taken the top down approach of decision making and spread the decisions amongst committees; thus fostering the Social Cohesion domains of *common culture* and *civic culture*.

Though in the early stages, learning organizations and the purposeful use of shared governance through Shared Leadership is working. The researcher is encouraged with the progress professors reported in their second year. The new faculty noted they felt confident with the tenure and promotion track, understood how many departments offered support and

service to the overall well-being and education of students and the felt they were valued for their work and opinions.

Long-term for future research, the researcher questions what would occur if the Dean were to leave. Would the structure of Shared Leadership continue or would the traditional “top down” process of leadership be reinstated with new administration? In addition, how would the Social Cohesion of the campus be affected?

References:

- Berg, B. (2007). *Qualitative research methods for the social sciences* (6th ed.). Boston: Pearson.
- Bligh, M. C., Pearce, C. L., & Kohles, J. C. (2006). The importance of self and shared leadership in team based knowledge work: A meso-level model of leadership dynamics. *Journal of Managerial Psychology*, 21(4), 296-318.
- Camblin, L. D., & Steger, J. A.. (2000). Rethinking Faculty Development. *Higher Education*, 39(1), 1–18.
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50(5), 1217-1234.
- Forrest, R. and A. Kearns (2001). "Social cohesion, social capital and the neighborhood." *Urban Studies* 38(12): 2125-2143.
- Heyneman, S.. (2002). Defining the Influence of Education on Social Cohesion. *International Journal of Educational Policy, Research, and Practice*, 73-97.
- Hubbard, G. and Atkins, S. (1995). ‘The professor as a person: The role of faculty well-being in faculty development’, *Innovative Higher Education* 20, 117–128.
- Kocolowski, M. (2010). Shared Leadership: Is it time for change? *Emerging Leadership Journeys*, 3 (1). 22-32
- Marzan, R. (2013). *What works in schools: translating research into action*. Alexandria, VA: ASCD
- Miles, S. and Watkins, M.(2007) The Leadership Team: Complementary Strengths or Conflicting Agendas. Retrieved form <https://hbr.org/2007/04/the-leadership-team-complementary-strengths-or-conflicting-agendas>
- O’Toole, J., Galbraith, J., & Lawler, E. E. (2002). When two (or more) heads are better than one: The promise and pitfalls of shared leadership. *California Management Review*, 44(4), 65-83.
- Pearce, C. L. (2007). The future of leadership development: The importance of identity, multi-level approaches, self-leadership, physical fitness, shared leadership, networking, creativity, emotions, spirituality and on-boarding processes. *Human Resource Management Review*, 17(4), 355-359.

- Saldana, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage Publications
- Schuster, J., Wheeler, D. and Associates (eds.) (1990). *Enhancing Faculty Careers: Strategies for Development and Renewal*. San Francisco, CA: Jossey Bass Publishers
- Yukl, G. (2006). *Leadership in organizations* (6th ed.). Upper Saddle River, NY: Pearson/Prentice Hall

A New Way to Assess Brand Equity of Automotive Brands

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Abstract

The concept of brand equity is so appealing nevertheless measuring of it is not as easy as its appeals. Aaker (1996) proposes some ways including price premium for assessing the brand equity. Used car markets may be one of the most appropriate markets to observe price premiums mainly due to the actual conditions of cars may not be examined but brands become the primary determinants of prices of used cars. The main assumption is that if the brand has own an equity, depreciating value of to be used would be less than that of the brand which has a relatively lesser equity. This study aims to assess brand equity in used car market in Turkey by analyzing depreciation differences among specific brands. Findings of the study supports the idea that observing depreciation differences among brands is a useful approach to assess brand equities.

Keywords: Brand Equity, Used Car Market, Automotive Brands

Introduction

Brand is a key factor affecting price of a product in the market by providing clue about product's quality level and creating an attractive image. Thus, it influences the demand for and price of the product. However, it is difficult to assess brand's influence, because other factors, like product attributes, also have effect on demand and price (Sullivan, 1998).

To observe brands' effect on demand and price, one of the suitable markets is the used car market because of two reasons. First, consumers cannot easily determine aspects of quality of cars by observation (Nichols and Fournier, 1999). Also, in used car market there is a problem called "lemon problem" (Akerlof, 1970) which stands for that buyers have less information about quality level of cars which they intended to buy than sellers, and this situation makes it highly possible to them to buy cars in bad

condition (lemons) at higher prices. To avoid this problem, brand is a powerful reference point for the buyer. Secondly, while car manufacturers are oligopolies (Mertens and Ginsburgh, 1985) who adjust market of new cars through supply regulation, and set prices, used car market can be classified as nearly a pure competition market in which neither individual sellers nor buyers are able to considerably affect the price (Betts and Taran, 2004).

With regard to these reasons, in used car market, it can be assumed that buyers are intended to buy cars which have higher brand equity than others, and as a result, prices of those cars are also higher than prices of others. In other words, cars with higher brand equity depreciate less than cars with lesser brand equity (Aaker, 1991: 22). In this study, depreciation differences among specific brands are analyzed to assess brand equity in used car market in Turkey.

Conceptual Framework

Brand equity is a very complex concept that have been studied by many researchers, and do not have an agreed definition, because different researchers have focused on different aspects of brand equity (Christodoulides and De Chernatony, 2010). Despite this differentiation in perspectives, there is a common idea which defines the brand equity in terms of marketing effects uniquely attributable to the brand (Keller, 1993). On the other hand, there is no consensus in methodologies to measure brand equity. Different researchers focusing on different aspects have developed different methodologies.

To measure brand equity, five general approaches have been proposed: observing price premium that the brand name can support, the impact of the brand name on customer choices, looking at the replacement value of the brand, observing stock price, and earning power of a brand (Aaker, 1991: 22). Observing price premium which is the main focus of our study is an indirect approach of customer based perspective of brand equity (Christodoulides and De Chernatony, 2010).

Price premium is the amount that a customer will pay for the brand in comparison with competing brand or brands offering similar benefits (Aaker, 1996). The suggestions about price premium are that it is more comprehensive than other measures (Baltas and Saridakis, 2010) and is the strongest and most reliable indicator of brand loyalty and may be the best single measure of brand equity (Aaker, 1996). The reason of these suggestions is that price premium originates in consensused definition of brand equity because of quantifying the marketing effects uniquely attributable to the brand (Farquhar, 1989).

Determining price premium can be achieved by asking consumers how much more they would be willing to pay for the brand, using conjoint analysis (Aaker, 1996) or observing price levels in the market (Aaker, 1991: 22). In both new and used car market, price premium can be obtained by using the third approach, observing price levels. Hence, researches analyzing price levels in car market have been made (eg. Arguea, Hsiao and Taylor, 1994; Baltas and Saridakis, 2010; Betts and Taran, 2004; Sullivan, 1998; Ecer, 2013).

In new car market, prices are used as dependent variable (Arguea, Hsiao and Taylor, 1994; Baltas and Saridakis, 2010), however, in used car market, observing price level might be taken a step further to assess brand equity. As Aaker (1991:22) stated, analyzing how much the different brands are depreciating each year may be used instead of prices. Until now, this idea has not been empirically tested.

Methodology

The aim of this study is to analyze depreciation differences among brands to assess brand equity in used car market in Turkey. For this purpose, firstly, sub-brands of 11 parent brands in car market (see Table 1) were selected judgementally from among B-segment car brands sold in Turkey. One sub-brand for each parent brand were included, except Peugeot. Peugeot had two B-segment sub-brands in 2011, the model year we determined. Sample includes only 2011 model used cars of selected brands.

Table 1: Selected Brands

Parent Brands	Sub-Brands
Citroen	C3
Dacia	Sandero
Fiat	Punto
Ford	Fiesta
Honda	Jazz
Hyundai	i20
Opel	Corsa
Peugeot	206+, 207
Renault	Clio
Toyota	Yaris
Volkswagen	Polo

Data were gathered from sahibinden.com² in February 2017, and list prices of brands were obtained via archive.org. Data set includes totally 550 used car classifieds, 50 for each parent brand. The following information

² Sahibinden.com is an classifieds website with eight categories: real estate, vehicles, shopping, industrial & heavy equipment, spare parts-accessory-hardware & tuning, services, career, pets & livestock and also one of the largest e-commerce platforms and in Turkey

was obtained from each classifieds; brand, price, mileage, engine capacity, transmission, fuel, and damage history. Table 2 summarizes the car characteristics used.

Table 2: Car characteristics

Variable	Explanation
Brand (B_i)	Dummy, coded as one if car's brand is i , zero otherwise
Transmission (T_m)	Dummy, coded as one if transmission is manual, zero otherwise
Transmission (T_a)	Dummy, coded as one if transmission is automatic, zero otherwise
Fuel -petrol (F_p)	Dummy, coded as one if fuel is petrol, zero otherwise
Fuel -LPG (F_{lpg})	Dummy, coded as one if fuel is Liquefied Petroleum Gas, zero otherwise
Fuel -diesel (F_d)	Dummy, coded as one if fuel type is diesel, zero otherwise
Mileage (M)	Measured in kilometer
Engine capacity (E)	Measured in cubic centimeters divided by 1000
Damage history-little damaged (D_l)	Dummy, coded as one if damage history is stated as little or no damaged, zero otherwise
Damage history-moderately damaged (D_m)	Dummy, coded as one if damage history is stated as moderately damaged, zero otherwise
Damage history-heavily damaged (D_h)	Dummy, coded as one if damage history is stated as heavily damaged, zero otherwise
Damage history- no information (D_n)	Dummy, coded as one if damage history is not stated, zero otherwise

Dependent variable of our study is the depreciation rate, ΔV , of which calculation is shown in equation (1) where P is the price of the car, and FV is the present value of car's list price.

$$\Delta V = 100 \times (P - FV)/FV \quad (1)$$

$$FV = P_l(1 + i_m)^{nm} \quad (2)$$

$$i_m = (1 + i_a)^{1/12} - 1 \quad (3)$$

To calculate present value of car's list price, we used equation (2) where P_l is the list price, i_m is the monthly effective interest rate, n is the number of year, and m is the number of months in that year. The calculation was made on monthly base because we were able to get list prices of different months in 2011 for each brand. Therefore, annual interest rate was converted to monthly interest rate by equation (3), and calculation was made year to year. For instance, for a car of which list price of May 2011 was obtained, firstly value at the end of 2011 is calculated, m value is seven. Then, the value at the end of each year is calculated based on the effective interest rates of that year. Lastly, the value at the end of the first two months of 2017 is calculated to reach its present value.

In model, brand, transmission, fuel, and damage history are categorical variables coded as dummy. Base classes in categorical variables are determined by the researcher (Ecer, 2013). Thus, we randomly specified

base classes for each categorical variables; "Dacia" in brands, "automatic" in transmission, "diesel" in fuel, and "little damaged" in damage history. Thus, the model was adjusted as (4);

$$\Delta V = \beta_0 + \beta_1 \sum_{i=1}^{10} B_i + \beta_2 T_m + \beta_3 F_p + \beta_4 F_{lpg} + \beta_5 M + \beta_6 E + \beta_7 D_m + \beta_8 D_h + \beta_9 D_n \quad (4)$$

Results and Discussion

First results are presented in Table 3. As seen, all coefficients, except the coefficient of engine capacity, are significant at 0.05 level. Therefore, we took out the engine capacity variable from our model, and present the results in Table 4.

Table 3: Results of first model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Citroen C3	-11.61341	0.894518	-12.98287	0.0000
Fiat Punto	-8.011331	0.950375	-8.429649	0.0000
Ford Fiesta	-7.855783	0.911224	-8.621132	0.0000
Honda Jazz	-5.892732	0.994283	-5.926614	0.0000
Hyundai i20	-11.17165	0.966906	-11.55402	0.0000
Opel Corsa	-5.198220	1.014789	-5.122461	0.0000
Peugeot 206+/207	-9.099817	0.902475	-10.08318	0.0000
Renault Clio	-11.04044	0.896552	-12.31434	0.0000
Toyota Yaris	-11.78504	1.006220	-11.71219	0.0000
Volkswagen Polo	-5.508090	0.902000	-6.106529	0.0000
Mileage	-7.16E-05	4.75E-06	-15.05981	0.0000
Engine Capacity*	-3.584788	2.315110	-1.548431	0.1221
Manual Transmission	-1.164088	0.546387	-2.130519	0.0336
Petrol	4.059573	0.591168	6.867034	0.0000
LPG	5.183541	0.639775	8.102131	0.0000
Moderately Damaged	-7.007853	0.495258	-14.14991	0.0000
Heavily Damaged	-13.33699	0.924982	-14.41865	0.0000
Damage Not Stated	-2.527444	0.903210	-2.798289	0.0053
C	-14.02889	3.861139	-3.633354	0.0003
R-squared	0.744070	Mean dependent var		-34.77109
Adjusted R-squared	0.735395	S.D. dependent var		8.468477
F-statistic	85.76606			
Prob(F-statistic)	0.000000			

*not significant

Table 4: Results of adjusted model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Citroen C3	-11.34039	0.878119	-12.91440	0.0000
Fiat Punto	-7.470862	0.885119	-8.440521	0.0000
Ford Fiesta	-7.506481	0.884018	-8.491317	0.0000
Honda Jazz	-5.589577	0.976097	-5.726459	0.0000
Hyundai i20	-10.63190	0.903071	-11.77305	0.0000
Opel Corsa	-4.516669	0.915564	-4.933211	0.0000
Peugeot 206+/207	-8.815455	0.884753	-9.963752	0.0000
Renault Clio	-10.80091	0.884264	-12.21457	0.0000
Toyota Yaris	-11.17460	0.926989	-12.05472	0.0000
Volkswagen Polo	-5.310543	0.894104	-5.939512	0.0000
Mileage	-7.09E-05	4.74E-06	-14.96122	0.0000
Manual Transmission *	-0.869920	0.512968	-1.695855	0.0905
Petrol	4.381289	0.554181	7.905877	0.0000
LPG	5.393030	0.626127	8.613312	0.0000
Moderately Damaged	-6.978608	0.495547	-14.08263	0.0000
Heavily Damaged	-13.25228	0.924575	-14.33337	0.0000
Damage Not Stated	-2.591013	0.903461	-2.867874	0.0043
C	-19.80404	1.000258	-19.79894	0.0000
R-squared	0.742915	Mean dependent var	-34.77109	
Adjusted R-squared	0.734700	S.D. dependent var	8.468477	
F-statistic	90.43251			
Prob(F-statistic)	0.000000			

*significant at 0.1 level

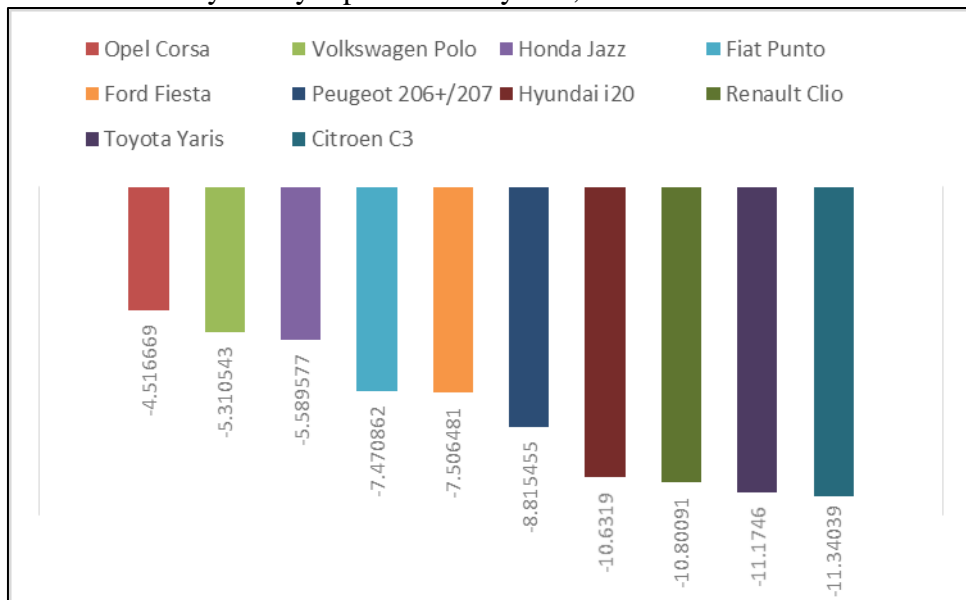
Our model has an adjusted R-squared of 0.7347 which states that the model is good enough to fit the data. All coefficients, except the coefficient of manual transmission, are significant at 0.01 level. Coefficient of manual transmission is also significant at 0.1 level, and thus we did not remove it from model.

The price premium measure is defined with respect to a competitor or set of competitors (Aaker, 1996), therefore coefficients of variables must be interpreted by comparing to the base class of their information type. For example, coefficient of Citroen C3 indicates that a Citroen C3 depreciates nearly 11 percent more than Dacia Sandero-the base class of brands. Also, coefficients of other brands can be compared with each other by just a simple subtraction. For instance, it can be said that Ford Fiesta depreciates nearly 2 percent more than Honda Jazz. Coefficients of brands is sorted largest to smallest in Table 5.

Table 5: Coefficient of brands

Brand	Coefficient
Dacia Sandero	-
Opel Corsa	-4.51667
Volkswagen Polo	-5.31054
Honda Jazz	-5.58958
Fiat Punto	-7.47086
Ford Fiesta	-7.50648
Peugeot 206+/207	-8.81546
Hyundai i20	-10.6319
Renault Clio	-10.8009
Toyota Yaris	-11.1746
Citroen C3	-11.3404

As well as brands' coefficients, coefficients of other variables also can be interpreted as their effect on depreciation rate. It can be said that cars with manual transmission depreciates more than cars with automatic transmission. Considering fuel types, coefficients indicate that diesel fuel affects depreciation more than both petrol and LPG. Also we can say that, a car loses value by nearly 7 percent every 100,000 km.

**Figure 1:** Brands' effect on depreciation rate

Conclusion

This paper aims to analyze the effect of brand on depreciation of cars. We intended to assess brand equity in used car market by observing depreciation differences of brands. This idea is proposed by Aaker (1991:22)

as a kind of price premium approach, but it has not been empirically tested before.

In our model, the base class is Dacia Sandero and its brand effect on depreciation is accepted zero for comparing with other brands. Among all brands in our sample, Sandero has most powerful brand that affect the depreciation. The results shows that 2011 model Sandero depreciates nearly 4.5 percent less than Corsa, the second most powerful brand. Also, comparison between any two of these brands can be made by comparing their coefficient values. According to the results, visualized in Figure 1, it can be stated that the brand has an effect on depreciation of cars. In other words, change in value of different car brands are not the same.

This study is the initial step to analyze the proposition of Aaker (1991:22). Therefore, this approach needs to be tested more. We suggest analyzing brands in different segments, such as C or luxury, in different markets, and in different model years for further research.

References:

- Aaker, D. A. (1996). Measuring Brand Equity Across Products and Markets. *California management review*, 38(3), 102-120.
- Aaker, David A. (1991). *Managing Brand Equity*. New York: The Free Press.
- Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal Of Economics*, 84(3), s. 488-500.
- Arguea, N. M., Hsiao, C., & Taylor, G. A. (1994). Estimating Consumer Preferences Using Market Data—An Application to US Automobile Demand. *Journal of Applied Econometrics*, 9(1), 1-18.
- Baltas, G., & Saridakis, C. (2010). Measuring Brand Equity in the Car Market: A Hedonic Price Analysis. *Journal of the Operational Research Society*, 61(2), 284-293.
- Betts, S. C., & Taran, Z. (2004) The 'Brand Halo' Effect on Durable Goods Prices: Brand Reliability and the Used Car Market", *Academy of Marketing Studies Journal*, 8(1), s. 1-7.
- Christodoulides, G., & De Chernatony, L. (2010). Consumer-Based Brand Equity Conceptualization and Measurement: A literature review. *International Journal of Research in Marketing*, 52(1), 43-66.
- Ecer F. (2013). Türkiye’de 2. El Otomobil Fiyatlarının Tahmini ve Fiyat Belirleyicilerinin Tespiti, *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 13 (4), s. 101-112.
- Farquhar, P. H. (1989). Managing brand equity. *Marketing Research*, 1(3), 24-33.
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing

- Customerbased Brand Equity. *Journal of Marketing*, 57(1), s. 1-22.
- Mertens, Y. & Ginsburgh V. (1985). Product Differentiation and Price Discrimination in the European Community: The Case of Automobiles, *Journal of Industrial Economics*, 34(2), s. 151-166.
- Nichols, M. W. & Fournier G. M. (1999). Recovering From A Bad Reputation: Changing Beliefs About Quality of US Autos, *International Journal of Industrial Organization*, 17, s. 299-318.
- Sullivan M. W. (1998). How Brand Names Affect the Demand for Twin Automobiles, *Journal of Marketing Research*, 35 (2), s. 154-165.

Relationship Between Entrepreneurial Orientation and Personal Characteristics: A Case Study at Pamukkale University, Turkey

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Abstract

Entrepreneurship is one of the basic dynamics of economic development and increasing the level of social welfare. Especially, entrepreneurship is considered as one of the most important factors determining the economic development and emerges from the transition from industrial society to the information society. The spirit of entrepreneurship usually fosters among people with innate personality traits and is then complemented by environmental influences. The people, who make careers, are aware of their talents especially recognize them during the university age. People are able to set clear goals when making plans for their future. Those with higher entrepreneurial tendency are able to pass on their dreams of new business ideas and step up their own companies. The person who takes the risk and capable of making innovation is called the entrepreneur. Entrepreneurship is a concept ascribed to entrepreneurs who take risks, monitor opportunities, pass them on and make innovation. The purpose of the study, conducted at the Pamukkale University Faculty of Economics and Administrative Sciences, is to determine the entrepreneurship tendencies of the students with different personality traits. A positive relationship was found between personality traits and entrepreneurship tendency as a result of the study.

Keywords: Personality, entrepreneurship, entrepreneurship tendency

Introduction

Entrepreneurship has been one of the most discussed subjects recently. Important advancements, especially in information technology, in the world after the 1980s have laid the foundation of majority today's

medium and large size business corporations. The significant effect on economic development, increasing competition, creation of new technologies, mitigation of unemployment and poverty, elevation of human and social capital level, the evolution of social structure and enhancing competitive power of countries has been proven by various researchers (Cansız, 2013: 1). Entrepreneurship, which has gained further importance today, has especially spread among young population in developing countries.

In the beginning of the 20th century, as technological evolutions have emerged in almost all industries, doyens of economy major such as Schumpeter (1911), Taussig (1915) and Knight (1921) strived to analyze roles of human and evolution processes. Thus, the concept of entrepreneurship has emerged as a strength to steer society alone and to advance their attitude towards technology through innovative processes and exceeding the limits (Muniz et al., 2014: 545).

Spirit of entrepreneurship develops in humans with their innate personality characteristics and then completed with the help of environmental effects. Individuals pursuing their professional career usually realize their personal talents during the university period. Thus, they could set explicit goals for their future plans. Individuals with high entrepreneurship tendency are capable of taking a step to put innovative business ideas into action and to establish their businesses (Serinkan and Barutçu, 2006: 318).

Proliferation and activation of entrepreneurship are substantially fundamental for economic, technologic, social development and growth; and they enable discovery and development of entrepreneurial personalities. Therefore, conducting researchers to explore potential entrepreneurs are significantly important to determine deficiencies related to entrepreneurship and to put emphasis on the need for development in this field (İrmiş and Barutçu, 2012: 1). Entrepreneurship education in Turkey is usually given in the course format the business administration departments and it has been observed that these courses have significant impacts on entrepreneurship potential of youth. According to the researchers on entrepreneurship potential, personal characteristics of individuals play substantial role in the exploration of the process. Different skills of entrepreneurs have a different influence on investment decision. Furthermore, factors such as gender, age, education level are influent on their entrepreneurship potential (Doğaner and Altunoğlu, 2010: 104-105). In this context, personality characteristics influent on entrepreneurship behavior will be emphasized.

Literature Review

Personality

Personality could be defined as all of the innate qualities and the ones gained through personal life experiences, which differentiate individuals from others. McCrae and Costa (1989) describe personality as an interaction style which depicts continuous, inter-personal, affectional, motivational behaviors exerted by human beings in different circumstances and based on their unique experiences. Many researchers in social sciences have suggested different opinions concerning the description of personality (Doğan, 2013: 56-57).

Personality is an extensive major that covers all of their characteristics such as behaviors, interests, capabilities, appearance, speaking styles of human beings and their adjustment to environment. Within such an extensive major, special or regular behaviors and attitudes differentiate human beings from one another. Personality characteristics are also described as displaying certain behavior tendency under certain conditions. Personality characteristics addressed in this scope are the classic long-term and consistent personal qualities which arise on the basis of internal motives. Personality characteristics are describing, classifying and summarizing individuals' observable behaviors and attitudes (Saltürk, 2006: 80).

As personality inventory is one of the self-expression methods designed for individuals, it is structured in question-answer form. The person selects the most appropriate answers among the options given in the question so that they could be described and classified by means of personality inventories. Although inventories depict various qualities and characteristics of individuals, they do not reveal information about the causes lying underneath; instead, they only serve to determine the current status (Özgül, 2000: 298). Of these inventories, the most frequently utilized one, the Five Factor Personality Test, was employed in the present study.

Five Factor Personality Model Inventory

The Five Factor Personality Model (FFM), comprised of extroversion, agreeableness, conscientiousness, neuroticism and openness to experience, was developed by Norman in 1963. Norman constructed a personality scale comprised of 1,710 qualities; and suggested a five-factor classification (Şengül, 2008: 34). In 1978, Costa and Mcrae further developed the Neo Personality Inventory and introduced the final form of the Five Factor Personality Test. Neo personality survey is totally comprised of 240 questions, that is, 48 for each factor (Sayın and Aslan, 2005: 280).

Extroversion

The first factor of the FFM is extroversion. While extrovert individuals are described as positive, social, energetic, fun and more interested in other persons, introvert individuals are described as the ones who isolate themselves towards the outside world, enjoying loneliness and maintaining distance to others (Tabak et al. 2010: 544).

Agreeableness

Agreeableness is the second factor of the FFM. Agreeableness is mostly related to concepts such as humbleness, moderate behavior, and attitude, instilling confidence and self-sacrifice. While good-tempered individuals instill more confidence to others, the ones with low agreeableness level tend to have more confidence in their inner voice (Howard and Howard, 1995: 3-8).

Conscientiousness

Conscientiousness emerges as personal self-discipline process. Sub-dimension of conscientiousness includes a sense of mission, sense of punctiliousness, tidiness, being attentive and careful as well as self-disciplined. Individuals with high conscientiousness level are considered as the ones who tend to be successful; are determined and work planned. On the contrary, individuals with low level of conscientiousness are illustrated as the ones who are untidy, undisciplined, lazy and without a sense of mission (Doğan, 2013:57).

Neuroticism

The fourth factor in the FFM is considered as neuroticism. While neuroticism refers maintaining internal personal balance, it aims individuals to remain calm, relaxed, unworried and consistent. This factor suggests that individuals could enjoy their lives and things as much as they succeed in maintaining their internal balance (Hayes and Joseph, 2003: 723).

Openness to Experience

Openness to experience is the fifth factor of the FFM. It consists of personal characteristics such as being attentive, curiosity, in dependency, openness to novelties, creativity, and openness to change. Whereas individuals with high level of openness to experience enjoy creating new ideas; the ones with a low level of openness to experience, are more hardliner and nonprogressive (McCrae and Costa, 1995: 21-50).

Entrepreneurship

Entrepreneurship is one of the fundamental elements of economic

development. Since it enhances both individual and social benefit and welfare, the relevant studies have been exponentially increased so as to develop this major. The first description of entrepreneurship, widely adopted by the relevant literature, was introduced by Richard Cantillon who described entrepreneur as a person organizing a business for profit in the exchange of associated risks. In this definition, Cantillon melted entrepreneur and risk factors in the same pot. On the other hand, an American economist Frank H. Knight(1921) distinguished risk factor and uncertainty from each other; and suggested a description for entrepreneur as follows: “An entrepreneur is the person who determines what, when, how and how much to manufacture something under an uncertain condition and who undertake the associated risks in the exchange of potential profit” (Döm, 2012: 2).

Studies revealed that economic development and growth might occur above the average when countries have intensive entrepreneurship activities. Furthermore, entrepreneurship makes a positive contribution to economic welfare which grabs the attention of society recently subject to three primary developments (Çetindamar, 2002: 17):

- a) Entrepreneurship is seen as a solution for unemployment,
- b) Continuously evolving and strengthening new economy and the role of entrepreneurship in this field,
- c) As a result of the developments in economy and business administration domains, entrepreneurship has made an appearance in these fields.

Although there are various criterions concerning entrepreneurship, which differ with respect to time and place, researchers available in the literature suggest that economic, sociologic and psychological factors have different weights on the formation of entrepreneurship personality. Whereas economic conditions are considered as the economic environment in which entrepreneur was born and raised, sociological conditions include family structure, family roots, education level, age and gender of the individual. Besides, the psychological condition is build up by characteristics such as self-perception of an entrepreneur, sympathy towards their profession, their work discipline and job satisfaction. In this context, entrepreneurship emerges as a result of the interaction of psychological, sociological and economic factors (Bozkurt, 2011: 20-21).

The Relationship Between Entrepreneurship Tendency and Personality Characteristics

It is considered that personality and environmental factors are effective on the emergence of entrepreneurship. Approaches oriented on personality factor addresses entrepreneurs’ personal characteristics. Hirsch

and Peters (1985) reported family, education, personal values, work accident, age and role model as factors influent on entrepreneurship (Bozkurt, 2011: 21-22).

Accordingly, in order to distinguish entrepreneurial personalities from others and to expose entrepreneurs who would potentially be successful, personal differences must be focused on and further studies must be conducted on factors such as work experiences, need for success, superior social skills and personal determinacy (Yılmaz and Sünbül, 2009: 199).

Concerning personality characteristics of entrepreneurs, different researchers report various opinions. In general, entrepreneurs are described with following qualities: innovative, risk taker, change-oriented, creative and opportunity-oriented. Besides, some studies report findings such as advanced communication skill, proactive behavior, high determinacy for success and having an insistent attitude on decisions as characteristics of entrepreneur personality (Bozkurt, 2011: 11-12).

Methodology

Personality and environmental factors are considered as influent on the emergence of entrepreneurship. Especially approaches concentrated on personality put emphasis on personal characteristics of an entrepreneur. The relevant literature indicates the significance of this relationship (Ören and Biçkes, 2011: 77-83; Demir, 2012: 194; Erdurur, 2012: 53-79; Küçük, 2014: 90-94). In this line, the purpose of the present study is to measure the effect of personality characteristics of undergraduate students from the business administration department who are relatively more close to the entrepreneurship subject on their entrepreneurship behavior. Accordingly, following the main hypothesis was structured:

Hypothesis: There is a positive and statistically significant relationship between personality characteristics of respondents and their level of entrepreneurship tendency.

Moreover, the relationship between sub-dimensions of personality characteristics and entrepreneurship tendency was investigated. To that end, following sub-hypotheses were structured:

H₁: There is a positive and significant relationship between extroversion and personal norm.

H₂: There is a positive and significant relationship between extroversion and behavior control.

H₃: There is a positive and significant relationship between extroversion and attitude towards behavior.

H₄: There is a positive and significant relationship between extroversion and agreeableness.

H₅: There is a positive and significant relationship between agreeableness

and behavior control.

H₆: There is a positive and significant relationship between agreeableness and attitude towards behavior.

H₇: There is a positive and significant relationship between conscientiousness and personal norm.

H₈: There is a positive and significant relationship between conscientiousness and behavior control.

H₉: There is a positive and significant relationship between conscientiousness and attitude towards behavior.

H₁₀: There is a positive and significant relationship between neuroticism and personal norm.

H₁₁: There is a positive and significant relationship between neuroticism and behavior control.

H₁₂: There is a positive and significant relationship between neuroticism and attitude towards behavior.

H₁₃: There is a positive and significant relationship between openness to experience and personal norm.

H₁₄: There is a positive and significant relationship between openness to experience and behavior control.

H₁₅: There is a positive and significant relationship between openness to experience and attitude towards behavior.

Whereas descriptive screening model was utilized in the present study, obtained data by means of the literature search was analyzed and interpreted by the SPSS software. The survey form was employed as data collection tool in this study. Personality characteristics scale is referred as "Five Factor Personality Scale" developed by Costa and McCrae (1987). The scale was comprised of sub-dimensions of extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The other scale employed in the data collection phase was the Entrepreneurship Tendency Scale developed by Leroy et al. (2009: 27-28). This scale was comprised of sub-dimensions of the personal norm, behavior control and attitude towards behavior. Both scales were structured in the 5-point Likert model.

The universe of the study consisted of 1,534 students from the Department of Business Administration at the Faculty of Economic and Administrative Sciences of the Pamukkale University. Survey forms were distributed totally 350 students, but 333 of them were considered valid for the purpose of the present study. Obtained study data was qualified to represent study universe at 95% ($\alpha=.05$) confidence level. Students were selected according to the convenience sampling method.

Results

The reliability of the data has been controlled by investigating the Cronbach's Alpha coefficient. Since both of them are above of 70% (see Table 1), scales were found reliable.

Table 1: Reliability Statistics

Scale	Cronbach's Alpha	N of Items
Personality traits	0,742	21
Entrepreneurship	0,884	29

Descriptive analysis was conducted in order to find out the degree of personality traits and entrepreneurship of the student. As seen in Table 2, the highest mean score was estimated with the conscientiousness sub-dimension of the personality characteristics. This was followed by openness to experience, extroversion, agreeableness, and neuroticism, respectively. In terms of the entrepreneurship scale, the highest mean score was estimated with the behavior control which was followed by sub-dimensions of the personal norm and attitude towards behavior, respectively.

Table 2: Descriptive Statistics

Scale	Dimension	Mean	Std. Deviation
Personality traits		3,4459	,30482
	Extroversion	3,4390	,52277
	Agreeableness	3,4276	,48342
	Conscientiousness	3,8559	,57572
	Neuroticism	2,7063	,58628
	Openness to experience	3,8006	,57404
Entrepreneurship		3,7240	,45650
	Personal norm	3,8162	,61544
	Behavior control	3,8926	,49719
	Attitude towards behavior	3,4633	,50119

In order to conduct hypothesis tests, correlation analysis was applied to collected study data. Obtained results were exhibited in Table 3. Accordingly, the result of the test conducted to determine the relationship between personality characteristics and entrepreneurship, concerning the main hypothesis, was determined as $p < 0.05$ $r = .381$; and was found statistically significant at 1%. The main hypothesis was not rejected. The confidence levels of the sub-hypotheses of H5, H11 and H12 were determined at $p > 0.05$ level. Accordingly, these hypotheses were rejected. The rest of the hypotheses, H1, H2, H3, H4, H6, H7, H8, H9, H10, H13, H14, and H15, were accepted ($p < 0.05$).

Table 3: Correlations

		Personal norm	Behavior control	Attitude	Entrepreneurship
Extroversion	Pearson Cor.	,287**	,339**	,242**	,341**
	Sig. (2-tailed)	,000	,000	,000	,000
	N	333	333	333	333
Agreeableness	Pearson Cor.	,112*	,066	,191**	,144**
	Sig. (2-tailed)		,230	,000	,008
	N	333	333	333	333
Conscientiousness	Pearson Cor.	,310**	,293**	,222**	,327**
	Sig. (2-tailed)	,000	,000	,000	,000
	N	333	333	333	333
Neuroticism	Pearson Cor.	-,147**	-,089	-,071	-,124*
	Sig. (2-tailed)	,007	,103	,199	,023
	N	333	333	333	333
Openness to Experience	Pearson Cor.	,324**	,305**	,336**	,379**
	Sig. (2-tailed)	,000	,000	,000	,000
	N	333	333	333	333
Personality	Pearson Cor.	,317**	,328**	,327**	,381**
	Sig. (2-tailed)	,000	,000	,000	,000
	N	333	333	333	333

In this study, demographic characteristics were also analyzed by employing t-test and Anova Test. Notable results were exhibited as f below. Male students (3,822) were placing greater emphasis on entrepreneurship and they displayed higher tendency to be an entrepreneur in comparison with female students (3,671). A significant relationship was determined between gender and perception towards entrepreneurship in all sub-dimensions ($p < 0.05$). In other words, a correlation was determined between gender and entrepreneurship, which could be interpreted as the fact that male members of Turkish families are encouraged more. It was also seen that tendency of students who have entrepreneur member in their families (3.92) for entrepreneurship was higher with respect to the ones who does not have (3.63). Moreover, in terms of perceptions towards entrepreneurship at all sub-dimensions, a significant relationship was determined between having an entrepreneur in the family and entrepreneurship behavior ($p < 0.05$). A correlation was determined between the existence of an entrepreneur in the family and entrepreneurship. Moreover, it was determined that students who were given entrepreneurship education at their institutions (3.890) had higher entrepreneurship potential with respect to ones who were not given entrepreneurship education (3.691). In all sub-dimensions of entrepreneurship, a significant correlation was determined between entrepreneurship course and entrepreneurship behavior ($p < 0.05$). That is, a relationship was exposed between having entrepreneurship education and entrepreneurship. On the other hand, there was no significant correlation

found between age and entrepreneurship. Similarly, there was no difference found between personality characteristics and gender variable.

Conclusion

Similar to the whole world, entrepreneurship has been a concept which maintained and even enhanced its prominence in Turkey for a long period of time. Entrepreneurship is one of the fundamental cornerstones of the global free market economy. Entrepreneurship plays an essential role in the development of countries, economic welfare, and sustainable development.

Owing to successful young businessmen, entrepreneurship and young businessman concepts have become prevalent among especially youngsters and middle-aged generation. In this context, studies conducted on students, potential entrepreneurs, have increased at a remarkable pace. On the basis of a literature review regarding the entrepreneurship concept, it could be seen that personality characteristics were influent on entrepreneurs' investment decisions. Additionally, factors such as gender, work experience, education level, and their interest in entrepreneurship or education in this field were found to be influent on entrepreneurship as they have been discussed in the past. The present study includes findings supporting these studies. The relationship between personality characteristics and entrepreneurship behaviors of undergraduate students from the department of business administration at the faculty of economic and administrative sciences of the Pamukkale University was tried to be investigated. Finally, statistically significant and positive correlation was revealed between students' personality characteristics and entrepreneurship behaviors. The relevant literature studies were found to be supporting the result of this study. In a study conducted in the Great Britain in 2014, a positive relationship was determined between personality characteristics and entrepreneurship; and it was found that personality characteristics were capable of explaining 55% of entrepreneurship (Leutner et al., 2014: 59-60). Furthermore, there were results obtained according to the demographic variables. Male students attach more importance to entrepreneurship and they tend more to be an entrepreneur with respect to female students. It was observed that students who have entrepreneur member in their families were more inclined to entrepreneurship in comparison with the ones who do not have entrepreneur member. No significant relationship was determined between age variable and entrepreneurship. Moreover, no significant relationship was determined between personality characteristics and gender variable.

In parallel to the obtained results in this study, some suggestions were drawn and it was concluded that entrepreneurship behaviors of students differ with respect to their personality characteristics. Thus, individuals'

entrepreneurship potential must be enhanced by means of in-family training. This study was conducted on totally 333 students attending to the department of business administration at the undergraduate level. For the more comprehensive study, greater sampling group must be accessed. In Turkey, further studies on entrepreneurship education must be prioritized and larger audience group is required to be reached through their education programs as much as possible.

References:

- Bozkurt, Ö. Ç. (2011). *Dünyada ve Türkiye'de Girişimcilik Eğitimi: Başarılı Girişimciler ve Öğretim Üyelerinden Öneriler*. Ankara: Detay Yayıncılık.
- Cansız, M. (2013). *Türkiye'nin Yenilikçi Girişimcileri Teknoloji Geliştirme Bölgeleri Örneği*. Ankara: Kalkınma Bakanlığı Yayını.
- Çetindamar, D. (2002). *Türkiye'de Girişimcilik*. İstanbul: Lebib Yalkın Yayınları ve Basım İşleri A.Ş.
- Doğan, T. (2013). Beş Faktör Kişilik Özellikleri ve Öznel İyi Oluş. *Doğuş Üniversitesi Dergisi*, 14(1), 56-64.
- Demir, C. (2012). Kişilik Özellikleri ve İş Tatmini Arasındaki İlişkiyi Belirlemeye Yönelik Bir Uygulama, Yüksek Lisans Tezi, İnönü Üniversitesi, Sosyal Bilimler Enstitüsü, Malatya.
- Doğaner, M., and Altunoğlu, A. E. (2010). Adnan Menderes Üniversitesi Nazilli İktisadi ve İdari Bilimler Fakültesi İşletme Bölümü Öğrencilerinin Girişimcilik Eğilimleri. *Organizasyon ve Yönetim Bilimleri Dergisi*, 2(2), 104-105.
- Döm, S. (2012). *Girişimcilik ve Küçük İşletme Yöneticiliği*. Ankara: Detay Yayıncılık.
- Erdurur, K. (2012). Turizm Lisans Eğitimi Alan Öğrencilerin Girişimci Kişilik Özelliklerinin Girişimcilik Eğilimine Etkisi: Akçakoca Turizm İşletmeciliği ve Otelcilik Yüksekokulu Örneği, Düzce Üniversitesi, Sosyal Bilimler Enstitüsü (Unpublished master's thesis). Düzce.
- Hayes, N., and Joseph, S. (2003). Big Five Correlates of Three Measures of Subjective Well-Being. *Personality and Individual Differences*, 34(4), 723-727.
- Howard, P. J., and Howard, J. M. (1995). The Big Five Quickstart: An Introduction to the Five-Factor Model of Personality for Human Resource Professionals. *Center for Applied Cognitive Studies, Charlotte, NC*, 3-20.
- İrmiş, A., and Barutçu, E. (2012). Öğrencilerin Kendilerini Girişimci Bir Kişilğe Sahip Görmelerini ve İş Kurma Niyetlerini Etkileyen Faktörler: Bir Alan Araştırması. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 26(2), 1.

- Küçük, K. A. (2014). Kişilik Özelliklerinin Girişimcilik Davranışına Etkisi 'Abant İzzet Baysal Üniversitesi' Örneği (Unpublished master's thesis). Türk Hava Kurumu Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.
- Leutner, F., Ahmetoglu, G., Akhtar, R., and Premuzic, T. C. (2014). The relationship between the entrepreneurial personality and the Big Five personality traits. *Personality and Individual Differences*, 63, 58-63.
- McCrae, R. R., and Costa, P. (1995). Domains and facets: Hierarchical personality assessment using the revised neo personality inventory. *Journal of Personality Assessment*, 64(1), 21-50.
- Muniz, J., Alvarez, J. S., Pedrosa, I., Pedrero, E. F., and Cueto, E. G. (2014). Enterprising Personality Profile In Youth: *Psicothema*, 26(4), 545.
- Ören, K., and Biçkes, M. (2011). Kişilik Özelliklerinin Girişimcilik Potansiyeli Üzerindeki Etkileri (Nevşehir'deki Yüksek Öğrenim Öğrencileri Üzerine Yapılan Bir Araştırma). *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 16(3), 67-86.
- Özguven, İ. E. (2000). *Psikolojik Testler*. Ankara: Pegem Yayınları.
- Saltürk, M. (2006). İşletme Yönetiminde Yöneticinin Kişilik Özellikleri ile Algılanan Yönetim Başarısı Arasındaki İlişki ve Bir Araştırma (Unpublished master's thesis). 80. İstanbul Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.
- Sayın, A., and Aslan, S. (2005). Duygudurum Bozuklukları İle Huy, Karakter ve Kişilik İlişkisi. *Türk Psikiyatri Dergisi*, 16(4), 276-283.
- Serinkan, C., and Barutçu, E. (2006). Pamukkale Üniversitesi İİBF Öğrencilerinin Kariyer Planları ve Sosyotropi-Otonomi Kişilik Özelliklerine İlişkin Bir Araştırma. *Afyon Kocatepe Üniversitesi, İ.İ.B.F. Dergisi*, 8(2), 317-339.
- Şengül, C. M. (2008). Örgüt çalışanlarının kişilik, iş tatmini ve örgütsel bağlılıkları arasındaki ilişkinin incelenmesi (Basılmamış Doktora Tezi). *Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü*.
- Tabak, A., Basım, N., Tatar, İ., and Çetin, F. (2010). İzlenim Yönetimi Taktiklerinde Beş Faktör Kişilik Özelliklerinin Rolü: Savunma Sanaiinde Bir Araştırma. *Ege Akademik Bakış*, 10(2), 539-557.
- Yılmaz, E., and Sünbül, A. M. (2009). Üniversite Öğrencilerine Yönelik Girişimcilik Ölçeğinin Geliştirilmesi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*(21), 196-198.

An Overview of the Stages (Heuristics) Model as a Public Policy Analysis Framework

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Abstract

Public policy analysis requires a comprehensive research and a framework in order to figure out the details of the policies applied. Thus, many public policy analysis models are used in various policy fields so as to examine the all stages of the public policy making and implementation process. Stages model is one of the most well-known and the oldest policy analysis frameworks that have been used by many policy analysts, academicians and independent researchers around the world. In this paper, firstly, the background of the stages model and its development process will be briefly dealt. Later on, the main advantages of the stages model will be put forth by comparing with other common public policy analysis models. Lastly, examples of the public policy analyses that stages model was taken as a main analysis framework in different policy fields and countries will be scrutinised. This paper reveals that the stages model is a suitable, easily applicable, efficient, attractive, and usable framework in analysis of public policies.

Keywords: Stages Model, Public Policy Analysis, Public Policy

Introduction

Although the concept of public policy is defined and described by various theorists in different ways, the definition of Dye (2008: 1) “whatever governments choose to do or not to do” emerges as the most comprehensive definition. In public policy process; problems are conceptualized and brought to the government agenda, alternatives and selected solutions are formulated by public institutions and numerous actors, policy proposals are applied, evaluated and revised (Sabatier, 2007: 3). Thus public policy process does not only consist of a just single decision, it is also a sequence of decisions and actions (Hill, 1997: 7). In this respect, public policies affect and encompass all citizens (Akdoğan, 2011: 77), as opposed to private sector

policies (Peters, 1996: 4; Kulaç and Çalhan, 2013: 207). As the social needs and problems are related to various public policy areas (Hogwood and Gunn, 1984: 13; Yıldız and Sobacı, 2013: 17; Çeliktürk, 2016: 119), many policies such as education, health, tourism, disaster management, energy, and security are made at the macro level. In addition to this, countless of public policies are formulated and implemented at mezzo and micro levels. For the mezzo level public policies; general health insurance policy and higher education policy can be given as examples. Moreover, policies such as abroad graduate scholarship policy (Kulaç and Çalhan, 2013; Kulaç, 2016) and employment of foreign doctors (Sezer and Yıldız, 2009) can be regarded as micro level public policies.

It is not easy to figure out the processes of public policies, which have complicated structures, political conflicts, and personal interests. For this reason, public policy process is scrutinised by dividing into specific stages (Rose, 1976; Hogwood and Gunn, 1984; Howlett and Ramesh, 1995; Mandal and Rawat, 1997; Jann and Wegrich, 2007; Dye, 2008 Sapru, 2010). As expressed by Dunn (1981: 35), public policy analysis is an applied discipline of social science, using many query methods and arguments to produce and transform knowledge about politics that can be used in political environments to solve policy problems. Furthermore, public policy analysis is a process in which questions such as what the government has done, why it has done it and what sort of outcomes have gathered as a result of the relevant policy are analysed. Along with policy analysis; the influences of political institutions on policy and the role of government in policy areas are put forth (Dye, 2008: 5). In public policy analysis process, comprehensive academic and other studies can be achieved by considering all the details that are thought to have an impact on the process and by using different decision-making and analysis models. In this paper, firstly, the stages model and its development history will be put forth. Secondly, the fundamental benefits of the stages model will be assessed so as to compare with some other main policy analysis models. Lastly, public policy analysis examples that stages model was applied will be examined.

Stages Model (Framework) as a Public Policy Analysis Model

The stages model, introduced by Laswell (1956) in seven stages, is one of the two earliest models (the other one is system model developed by David Easton in 1957) that maintain its validity and prevalence in public policy analysis. Thus stages model is an essential key reference point for public policy studies. The most significant and pioneering theory or empirical grounded studies to define, frame and illustrate the stages model that have taken its place in history as prominent and highly cited can be listed as Jones (1970), Dye (1972; 2008), Anderson (1975; 1979;

1982; 2014), Jenkins (1978), May and Wildavsky (1978), Nelson (1978; 1986), Brewer and DeLeon (1983), Peters (1996), Sabatier (1999; 2007). In stages model as one of the pioneering frameworks in public policy analysis, policy making process has a progressive cycle (Gosling, 2004: 92). With the widespread of public policy studies in 1970's and 1980's, stages model was reformulated and utilised by various scholars in different ways. In other words, the stages/phases of the stages model, also known as process/sequential model, have been differentiated over time and among scholars. Although originally the stages model was described by Laswell (1956) in seven stages; Jones (1970), Brewer (1974), Anderson (1975; 1979; 1982; 2014), Brewer and DeLeon (1983), Dorey (2005) divided stages/process model into five or six different stages and developed in their books which are also used as course materials. Even Anderson (1975; 1979; 1982; 2014) mentions about five different stages of stages/process model, as he stressed, formulation of public policy is the main focal point on his studies. The stages model which is applied currently has basically five stages. These stages are expressed as agenda setting, formulation, legitimation, implementation, and evaluation (Brewer and DeLeon, 1983; DeLeon, 1999; Sabatier, 1999: 6; 2007: 6). The most updated reformulation and development on the stages model is offered by Eger III and Marlowe (2006).

In agenda setting which is the first stage of the stages model, the issues such as how the problems arise and come to the public agenda are dealt (Howlett and Ramesh, 1995: 104). Moreover, in the process of agenda setting in which problems are transformed into policy designs (Hill, 1997: 115), problems and possible solutions gain or lose the attention of public and the elite (Birkland, 2005: 109). Agenda setting process is shaped by the specific priorities of policy makers (Macrea and Wilde, 1985: 232), thus even there are many issues that are likely to come to an agenda, only a fraction of them are carried to the public agenda by governments and other actors (Howlett and Ramesh, 1995: 112-113). According to Peters (1996: 45-50), it is not feasible for many problems to be on the agenda at the government level. Each social problem has a degree of importance and innovation (Gosling, 2004: 44-45), which highly affects the capacity of the problems to reach the government level. For example, governments seem to act quicker on urgent issues such as bird flu, aids, and oil crises (Knoepfel et al., 2007: 132-134).

In formulation stage, policy alternatives are developed in order to struggle with the current problems on the public agenda (Dye, 2008: 42; Ripley and Franklin, 1984). In this way, the number of policy options is reduced and the policy makers make their final choices/decisions easier (Howlett and Ramesh, 1995: 123). In other words, in the policy formulation

stage that is basically the pre-policy decision stage; a set of policy alternatives and solutions is generated and also narrowed so as to ease the final decision (Sidney, 2007: 79). In public policy formulation process various mechanism are developed to respond social problems (Jones, 1977: 49-50; Peters, 1996: 59), and a number of actors play crucial roles. These actors can be counted as parliament, government, public bureaucrats, political parties, pressure groups, think tanks and the media. In formulation stage which is one of the most functional stages of the stages model, the answers of some of the necessary questions are sought. These questions can be expressed as follow: What is the plan to deal with the problem? What are the goals and priorities? What are the costs and benefits to achieve goals? What are the positive and negative externalities in each alternative? (Cochran and Malone, 1999: 46).

Legitimation stage holds a key for public in public policy making process in which different alternatives are taken into account and policies are shaped accordingly. According to Kraft and Furlong (2004: 86), the decisions taken by policy makers are given a legal force or political activities are legitimised. It is difficult for policy makers to direct the legitimation stage independently from the thought that is highly common in the society. Similarly, Anderson (1984) emphasises that legitimation stage is influenced by the public and thus policy makers have to take into account requests and demands of citizens. Moreover, Anderson (1984: 63) reveals that the political future of the policy makers might be short if the request and needs of the citizens are not taken into consideration in the process of public policy formulation. Policies made by the policy makers in order to provide solutions to social needs and problems might lose its effectiveness over time. At this point, necessary regulations are passed on by making changes in the policies.

The implementation stage of the public policies takes place after the completion of legitimation process. As stated by Fitz et al. (1994) policy goals are transformed into actions in the implementation stage. The achievement of the policy objectives highly depends on the effective implementation (Ripley and Franklin, 1986). In this context, if the policies are not implemented coherently and efficiently, it is not feasible to reach the set goals even the policies are well-formulated (Edwards, 1980: 1). On the other hand, social, economic, technological and political conditions significantly influence the implementation stage of public policies (Howlett and Ramesh, 1995: 155). The fact that public practitioners have sufficient knowledge and experience about the policy area, increase the possibility of successful implementation of the policy (Peters, 1996: 107). Public support is also crucial for the smooth public policy implementation (Ringquist, 1993; Peters, 1996; Gosling, 2004; Anderson, 2014). Moreover, there are some

other factors that have an impact on the implementation process such as clearly written and easy-to-understand policy law text (Matland, 1995; Spillane et al., 2002; Birkland, 2005; Dye, 2008). Since the street-level bureaucrats are close to the problems, able to observe the practices on the spot and have discretion authorities; it is easier for them to understand the needs and expectations of the citizens. Thus the decisions and the behaviours of the street-level bureaucrats can have an essential effect on the outputs of policy implementation (Lipsky, 1980: 4-12).

Evaluation is the last stage of the stages model. In this stage, the results and the outputs of the implemented policies are attempted to put forth and assessed (Dunn, 1981: 339; Peters, 1996: 171). Additionally, it is mainly examined whether the policies and programs reach the determined goals and objectives (Jones, 1977: 186-187; Kraft and Furlong, 2004: 89). In other words, the overall success of the policies in meeting the aims and targets of the national program is measured in the evaluation stage/process (Peters, 1996: 171-172; Dye, 2008: 332). In evaluation stage, the effort spent in the public policy making and implementation process is tackled and scrutinised by using organisational methods based on performance, effectiveness, and productivity (Howlett and Ramesh, 1995; Peters, 1996). Moreover, the conscious or unconscious effects of the policies on the society are examined in detail (Dye, 2008: 55). In many public policy analyses (especially in evaluation stage), various numerical models and techniques are applied (Jones, 1977: 174), and empirical studies related to the sector that is affected by the policy are conducted. In empirical studies, surveys and/or interviews are the most common and convenient tools/methods in order to aggregate information from individuals about the implemented policies. Furthermore, the attitudes of the individuals toward policies can be measured by using these methods. Thanks to this, the weaknesses and the strengths of the policies are identified and the feedbacks are given. At the end of the evaluation stage, the policy cycle might be reversed and the process can be initiated from the first stage of public policy analysis (Howlett and Ramesh, 1995: 168; Jann and Wegrich, 2007: 53-54).

Main Advantages of the Stages Model

Public policy analysis characterised as a social and political activity (Bardach, 2005: xiii) is quite fundamental for the elaboration of policy outputs and their effects in detail. The desire of policy actors to play a role in the policy process with social, economic and geographical effects makes public policy process somewhat complicated (Weible, 2014: 3). Thus stages model offers a more systematic analysis by dividing policy into different stages in order to have a better understanding of public policy process (Laswell, 1971; Rose, 1973; Anderson, 1982: x;

DiGiammirano and Trudeau, 2008). The stages such as agenda setting, formulation, legitimation, implementation, evaluation, and even termination cannot be regarded as independent from each other. Each stage has an impact on the others and this highly facilitates to figure out the whole policy process. In this fashion, using stages model provides public policy analysts and other researchers with the opportunity to have broader perspectives on various public policies. As stated by Anderson (1982: ix-x) stages model provides researchers with a dynamic and developmental view of policy. Additionally, by applying stages model it is possible to make a comparison between different countries in case of each stage. On the other hand, various research methods and techniques can be adapted to stages model. In this context, stages model should not be regarded as a theory only for the USA; it also can be definitely used in various countries public policies (Anderson, 1982: x).

In stages model, official, unofficial and international actor's roles and effects on the policies are intensely considered. In each stage, various actors have different impacts and contributions. Especially think tanks play a key part by influencing policy makers (Howlett and Ramesh, 1995: 58; Yılmaz and Kulaç, 2016: 83) in both developed and developing countries in diversified policy areas (Özgür and Kulaç, 2015: 74). Therefore it is crucial to focus on the attitudes of the policy actors in order to conceive the overall applied policy. Furthermore to stick to the relations between policy actors is overwhelmingly functional so as to grasp the essential traces of the policies.

The results and the outputs of public policies are worthwhile for policy analysts and researchers. Hence considering these factors give an opportunity to policy makers to revise the policies. In stages model, particularly in the evaluation stage, the results and the outputs of the policies are assessed and compared with the goals set in the formulation stage. In this context, policy makers make a decision whether the policy should be redesigned or not. When compared to other public policy analysis models, in stages model every detail of the policy is more scrutinised. In other analysis models/approaches and frameworks such as elite, punctuated equilibrium, institutional and multiple streams some specific factors and mostly relations are addressed. Thus it might be not possible to have a comprehensive analysis as it is in the stages model. On the other hand, as stated by Cairney (2013; 2015); Schlager and Weible (2013: 295); Shanahan et al. (2013: 455); Weible (2014: 13), different and more than one public policy analysis models should be used and benefited in order to have a better understanding of public policy process. In this way, by combining other analysis models with stages model or using/applying them together, public policies might be analysed in detail and the background of the policies might be easily revealed and put forth. For example in agenda setting stage; punctuated

equilibrium model, multiple streams approach window of opportunity can be used to comprehend and explore the reasons, triggers and the secret agendas of the public policies. In this manner, although there are many new approaches, models, and even frameworks to be applied for public policy analyses, stages model still presents one of the most easily applicable, comprehensive, efficient and attractive frameworks especially for pioneering studies in different policy areas.

Application and Cases of the Stages Model

As stated in previous sections, stages model is applied in many public policy analyses. Even though some criticisms made by Sabatier (1999; 2007); Nakamura (1987); Sabatier and Jenkins-Smith (1993) stages model was used or taken as a framework involves various public policies areas. Several researchers from the most developed countries utilized either entire stages of the model (Brewer and DeLeon, 1983), most of the stages (a combination of two complimentary books by Ripley and Franklin, 1984; 1986) or most frequently a single stage like Kingdon's (1984; 2003) agenda setting. Unquestionable policy classics before 1999 utilizing the policy process/stages model are listed stage by stage by DeLeon (1999: 21-22). Although public policy literature is mostly developed by the scholars from Canada, some European countries, the USA and UK, it is feasible to claim that there are many studies produced by scholars/academician and researchers even from different underdeveloped and developing countries. In the study conducted by Haddad (1995), stages model/framework was applied to the education policies of Peru, Jordan, Thailand and Burkina Faso. In all cases, Haddad attempted to pose the questions such as "Were all policy options to deal with these issues identified? Were the implications of such options properly derived? Were these implementations fully evaluated in terms of their desirability, affordability, and implementability? Was the impact of the policy properly assessed in order to determine whether to continue the policy, modify it, or go on to a new policy cycle?" By these questions, Haddad (1995) achieved to have an extensive analysis of the policies implemented in Peru, Jordan, Thailand and Burkina Faso. In these public policy analyses made by Haddad (1995), the education planning activities of the mentioned countries were highly emphasised and main assumptions of the stage model were adequately used.

In the research paper authored by Cheng and Cheung (1998), the education policy of Hong Kong was analysed by benefiting from stages model. In Hong Kong after the establishment of Education Commission in 1984 assorted education policies were developed in order to have a well-educated and efficient workforce. Cheng and Cheung (1998) managed to analyse the education policies by focusing on the stages of policy. In this

manner; the identification, formulation, implementation and the evaluation of the education policies are scrutinised in detail.

In some of the research papers and other academic studies based in recent years (after 2003) on various policies implemented in Turkey, stages model was taken as the main framework so as to analyse the relevant policies. In the research paper authored by Kayıkçı (2003), the tobacco policy of the Turkey after 1980 was examined by using stages model. In this analysis; identification of the problem, agenda setting, enactment, implementation of the policy were stressed. Moreover, the actors of the tobacco policy are put forth in order to have a better understanding of the policy. Semiz (2009) also utilised stages model so as to analyse the intellectual property policy of Turkey. Especially by 2004, significant regulations are formulated about intellectual property policy in Turkey. In this context, Turkish government aimed to struggle against piracy. In the research paper written by Semiz (2009) the agenda setting, trigger, and the problem identification of the intellectual property policy were put forth. Furthermore, enactment and the implementation of the policy were dealt systematically. The outputs of the intellectual property policy were evaluated and the success of the policy was assessed accordingly. Thus it is obviously possible to state that stages model was functionally applied to intellectual property policy of Turkey by Semiz (2009). Domestic violence and violence to the woman are debatable occurrences in Turkey for ages. Çalı (2012) put an emphasis on the mentioned topic and intensely benefit from the stages model. In this paper, five main stages of the stages model were used and in each stage the policy for the prevention of violence against women was concerned and tackled. Acar and Okçu (2015) analysed the postal service policy of Turkey after 2000. In their analysis, the transformation and the development of the postal services in Turkey were evaluated. In this fashion, stages framework was taken as a basis and the suggestions were provided in order to have more efficient and effective postal services in Turkey. Thus, this valuable effort and attempt were overwhelmingly crucial so as to have better policies in postal services. Regional development agencies which have started to be established and developed in Turkey by 2006 are highly significant in order to moderate development differences between regions (Torlak and Kulaç, 2016: 81-83). In the research paper authored by Tahtalıoğlu and Özgür (2016), development agencies policy of Turkey was analysed. In this analysis, the stages model was used in an efficient way and all stages of the policy were put forth systematically. Moreover, suggestions were given in accordance with the results of the study. In the study conducted by (Kulaç, 2016), abroad postgraduate scholarship policy of Turkey was analysed and scrutinised. In this context, various public policy analysis and decision making model were applied within the framework of

stages model. In addition to this, the analysis was supported by the findings obtained from survey research; functional and essential policy suggestions were intensely presented in order to make a contribution to abroad postgraduate scholarship policy of Turkey.

Conclusion

Public policies emerge as a result of social needs or problem. Government bodies mostly attempt to sort out the problems that occur in the society and affect the citizens. Hence, countless of public policies in various areas are put into force so as to provide citizens with better life standards. Evaluating public policies is overwhelmingly significant for the revision of the policies. In this context, public policy analysis holds a key for the government to identify the weaknesses and deficiencies of the implemented policies. In public policy analyses, various models and/or frameworks are used by the researchers and the policy analysts. In each model and framework, it is feasible to find out the main focal points. In some cases in order to have a comprehensive analysis more than one model might be needed or even mandatory. Stages model, which is also called as textbook (Nakamura, 1987; Sabatier, 1999; Sabatier and Jenkins-Smith, 1993), heuristics (Sabatier, 1999), process (Hill, 1997), sequential (Eger III and Marlowe, 2006) and stagist model (Dorey, 2005; Jenkins, 1978), is one of the most applied policy analysis models in the public policy studies. The number and the name of the stages were re-paraphrased in the last seven decades. Even the number of the stages was determined as seven by Laswell (1956); many scholars reduced the number of the stages in their research papers and books.

Due to high number and variety policy actors and the external effects, public policy has a complex structure. Thus, especially in the developing countries, understanding the policy process is quite difficult and time-consuming. At this point, applying stages model or using the framework highly eases the process of the public policy analysis. Moreover, as stated by Anderson (1982), it provides researchers and policy analysts with the opportunity to make comparisons between countries in identical policies. In this fashion, especially underdeveloped and developing countries might benefit from the successful examples of other countries. In this way, public policies of the underdeveloped and developing countries might be revised and developed. Even though stages model has numerous fundamental advantages for public policy analysis; it was criticised extensively by scholars such as Sabatier (1999; 2007); Nakamura (1987); Sabatier and Jenkins-Smith (1993). However, stages model is still one of the most common and well-known applied models in many countries.

Even the stages model was introduced and advanced in developed countries; it is possible to point out that stages model has spread to many underdeveloped and developing countries especially in the last two decades. For example, as it was presented in the previous section of this paper, in Peru, Jordan, Thailand, Burkina Faso and Hong Kong the education policies was analysed within the framework of stages model. In addition to this, as discussed and given in the previous section, in many policy areas whether in micro, mezzo or macro level such as regional development agencies policy, abroad postgraduate scholarship policy, postal services policy, intellectual property policy and tobacco policy of Turkey, stages model/framework was successfully utilised. Therefore, it is possible to claim that stages model is one of the most efficient, comprehensive, systematic, practical, functional, and beneficial model/framework in public policy analysis.

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References:

- Acar, O. K. ve Okçu, M. (2015). "Gov.Tr'den Com.Tr'ye Bir Kamu Politikası Analizi Örneği: 2000 Yılı Sonrası Değişen Posta Hizmet Politikaları", *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, Cilt: 20, Sayı: 4, s. 25-41.
- Akdoğan, A. A. (2011). "Türkiye'de Kamu Politikası Disiplinin Tarihsel İzleri", Kartal, F. (Ed.). *Türkiye'de Kamu Yönetimi ve Kamu Politikaları*, Türkiye ve Ortadoğu Amme İdaresi Enstitüsü, Ankara, s. 75-98.
- Anderson, J. E. (1975). *Public Policy-making*, Praeger, Holt, New York.
- Anderson, J. E. (1979). *Public Policymaking: An Introduction, 2nd Edition*, Holt, Rinehart and Winston, New York.
- Anderson, J. E. (1982). *Cases in Public Policy-Making, Second Edition*, Holt, Rinehart and Winston, New York.
- Anderson, J. E. (2014). *Public Policymaking: An Introduction, 8th Edition*, Cengage Learning, Stamford, Connecticut.
- Bardach, E. (2005). *A Practical Guide for Policy Analysis*, CQ Press a Division of SAGE Publications, Washington D.C.
- Birkland, T. A. (2005). *An Introduction to the Policy Process: Theories, Concepts, and Models of Public Policy Making, 2nd Edition*, M. E. Sharpe, New York.

- Brewer, G. D. (1974). "The Policy Sciences Emerge: To Nurture and Structure a Discipline", *Policy Sciences*, Vol. 5, No. 3, p. 239-244.
- Brewer, G. D., and DeLeon, P. (1983). *The Foundations of Policy Analysis*, Brooks, Cole, Monterey, California.
- Cairney, P. (2013). "Standing on the Shoulders of Giants: How Do We Combine the Insights of Multiple Theories in Public Policy Studies?", *Policy Studies Journal*, Vol. 41, No. 1, p. 1-21.
- Cheng, Y. C., and Cheung, W. M. (1998). "Analysing Hong Kong Educational Policy: Application of a Comprehensive Framework", Cheng, Y. C, Chow, K. W., Yeung, S. K., and Cheung, W. M. (Eds.), *Handbook on Educational Policy in Hong Kong (1965-1968)*, Centre for Research and International Collaboration, Hong Kong, p. 3-19.
- Cochran, C. L., and Malone, E. F. (1999). *Public Policy: Perspectives and Choices*, McGraw-Hill, Boston.
- Çalı, H. H. (2012). "Aile İçi Şiddet: Bir Kamu Politikası Analizi", *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, Cilt: 16, Sayı: 2, s. 1-25.
- Çeliktürk, T. (2016). "Efficiency of Think-Tank's Policy Recommendations in Turkey: Case of Kurdish Issue", *European Scientific Journal*, September Special Issue, p. 119-129.
- DeLeon, P. (1999). "The Stages Approach to the Policy Process: What Has It Done? Where Is It Going?", P. A. Sabatier (Ed.), *Theories of the Policy Process*, Westview Press, A Member of the Perseus Books Group, Boulder, Colorado, p. 19-32.
- DiGiammirano, F., and Trudeau, L. (2008). "Virtual Networks: an Opportunity for Government", *The Public Manager*, Vol. 37, No. 1, p. 5-11.
- Dorey, P. (2005) *Policy Making in Britain: An Introduction*, Sage, London.
- Dunn, W. N. (1981). *Public Policy Analysis: An Introduction*, Prentice Hall, Englewood Cliffs, New Jersey.
- Dye, T. R. (1972). *Understanding Public Policy*, Prentice Hall, Englewood Cliffs, New Jersey.
- Dye, T. R. (2008). *Understanding Public Policy, 12th Edition*, Prentice Hall, Upper Saddle River, New Jersey.
- Easton, D. (1957). "An Approach to the Analysis of Policy Streams", *World Politics*, Vol. 9, p. 383-400.
- Edwards III, G. C. (1980). *Implementing Public Policy*, Congressional Quarterly Press, Washington, D.C.
- Eger III, R. J., and Marlowe, J. (2006). "Hofferbert in Transit: A Dynamic Stages Model of the Urban Policy Process", *Review of Policy Research*, Vol. 23, No. 2, p. 413-432.
- Fitz, J., Haplin, D., and Power, S. (1994). "Implementation Research and Education Policy: Practice and Prospects", *British Journal of Educational Studies*, Vol. 42, p. 53-69.

- Gosling, J. J. (2004). *Understanding, Informing, and Appraising Public Policy*, Pearson, New York.
- Haddad, W. D. (1995). *Education Policy-Planning Process: An Applied Framework*, United Nations Educational, Scientific and Cultural Organizations, Paris.
- Hill, M. (1997). *The Policy Process in the Modern State, 3rd Edition*, Prentice Hall / Harvester Wheatsheaf, Hemel Hempstead Hertfordshire.
- Hogwood, B. W., and Gunn, L. A. (1984). *Policy Analysis for the Real World*, Oxford University Press, New York.
- Howlett, M., and Ramesh, M. (1995). *Policy Cycles and Policy Subsystems*, Oxford University Press, Canada.
- Jann, W., and Wegrich, K. (2007). "Theories of the Policy Cycle", Fischer, F., Miller, G. J., Sidney, M.S. (Ed.), *Handbook of Public Policy Analysis, Theory, Politics, and Methods*, CRC Press, Boca Raton, Florida, p. 43-62.
- Jenkins, W. I. (1978). *Policy-Analysis: A Political and Organisational Perspective*, Martin Robertson, London.
- Jones, C. (1970). *An Introduction to the Study of Public Policy*, Wadsworth Publishing Company, Belmont, California.
- Jones, C. (1977). *An Introduction to the Study of Public Policy, 2nd Edition*, Duxbury Press, North Scituate, Massachusetts.
- Kayıkçı, S. (2003). "Bir Kamu Politikası Süreci Analizi: 1980 Sonrası Türkiye'de Tütün Politikası", *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Gelişme ve Toplum Araştırmaları Merkezi*, Sayı: 63, s. 2-25.
- Kingdon, J. W. (1984). *Agendas, Alternatives, and Public Policies*, Harper Collins, Michigan.
- Kingdon, J. W. (2003). *Agendas, Alternatives, and Public Policies, 2nd Edition*, Longman, New York.
- Knoepfel, P., Larrue, C., Varone, F., and Hill, M. (2007). *Public Policy Analysis*, The Policy Press, Bristol.
- Kraft, E. M., and Furlong, S. R. (2004). *Public Policy: Politics, Analysis and Alternatives*, CQ Press, Washington D.C.
- Kulaç, O. (2016). *Bir Kamu Politikası Çözümlemesi: Türkiye'nin Yurtdışı Lisansüstü Burs Politikası*, Basılmamış Doktora Tezi, Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü, Denizli.
- Kulaç, O. ve Çalhan, H. S. (2013). "Bir Kamu Politikası Süreci Analizi: Milli Eğitim Bakanlığı ve Yükseköğretim Kurulu Yurtdışı Lisansüstü Bursları", *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, Sayı: 10, s. 205-225.
- Laswell, H. D. (1956). *The Decision Process*, Bureau of Governmental Research, University of Maryland, College Park, Maryland.
- Laswell, H. D. (1971). *A Pre-View of Policy Sciences*, Elsevier Publishing Company, New York.

- Lipsky, M. (1980). *Dilemmas of the Individual in Public Services*, Russell Sage Foundation, New York.
- Macrae, D., and Wilde, J. A. (1985). *Policy Analysis for Public Decisions*, University Press of America, California.
- Mandal, U. C., and Rawat, J. (1997). *Public Administration: Principles and Practice*, Sarup Sons, New Delhi.
- Matland, D. E. (1995). "Synthesizing the Implementation Literature: The Ambiguity- Conflict Model of Policy Implementation", *Journal of Public Administration Research and Theory: JPART*, Vol. 5, p. 145-174.
- May, J. V., and Wildavsky, A. B. (1978). *The Policy Cycle*, Sage Publications, Beverly Hills, California and London.
- Nakamura, R. (1987). "The Textbook Policy Process and Implementation Research", *Policy Studies Review*, Vol. 7, No. 1, p. 142-154.
- Nelson, B. J. (1978) "Setting the Public Agenda: The Case of Child Abuse", May, V. J., and Wildavsky, B. A. (Eds.), *The Policy Cycle*, Sage Yearbooks in Politics and Public Policy Vol. 5, Beverly Hills California and London, p. 17-41.
- Nelson, B. J. (1986). *Making an Issue of Child Abuse: Political Agenda Setting for Social Problems*, University of Chicago Press, Chicago.
- Özgür, H., and Kulaç, O. (2015). "An Analysis of the Studies on Think Tanks Success and Ranking", *European Scientific Journal*, Special Edition, Vol. 2, p. 73-90.
- Peters, G. (1996). *American Public Policy: Promise and Performance*, 4th Edition, CQ Press, Washington DC.
- Ripley, R. B., and Franklin, G. A. (1984). *Congress, the Bureaucracy, and Public Policy*, The Dorsey Press, Homewood, Illinois.
- Ripley, R. B., and Franklin, G. A. (1986). *Policy Implementation and Bureaucracy, 2nd Edition*, The Dorsey Press, Chicago.
- Rose, R. (1973). "Comparing Public Policy: an Overview", *European Journal of Political Research*, Vol. 1, No. 1, p. 67-94.
- Rose, R. (1976). *The Dynamics of Public Policy*, Sage Publications, London.
- Sabatier, P. A. (1999). *The Theories of the Policy Process*, Westview Press, Boulder, Colorado.
- Sabatier, P. A. (2007). *The Theories of the Policy Process, 2nd Edition*, Westview Press, Boulder, Colorado.
- Sabatier, P. A., and Jenkins-Smith, H. (1993). *Policy Change and Learning: An Advocacy Coalition Approach*, CO: Westview Press, Boulder.
- Sapru, R. K. (2010). *Public Policy Making: Art and Craft of Policy Making*, Phi Learning, New Delhi.
- Schlager, E., and Weible, C. M. (2013). "New theories of the policy process", *Policy Studies Journal*, Vol. 41, No. 3, p. 389-396.

Semiz, Ö. (2009).“Bir Kamu Politikası Analizi: Türkiye’de Korsanla Mücadele Odaklı Fikri Haklar Politikası”, *Ankara Barosu Fikri Mülkiyet ve Rekabet Hukuku Dergisi*, Cilt: 4, Sayı: 9, s. 9-40.

Sezer, M. S. ve Yıldız, M. (2009). “Türkiye’de Bir Kamu Politikası Sorunu Olarak Yabancı Doktor İstihdamı: Avustralya, Birleşik Krallık ve Kanada Örnekleri”, *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, Cilt: 11, Sayı: 3, s. 43-78.

Shanahan, E. A., Jones, M. D., McBeth, M. K., and Lane, R. R. (2013). “An Angel on the Wind: How Heroic Policy Narratives Shape Policy Realities”, *Policy Studies Journal*, Vol. 41, No. 3, p. 453-483.

Sidney, M. S. (2007). “Policy Formulation: Design and Tools”, F. Fischer, G. J. Miller, M.S. Sidney (Eds.), *Handbook of Public Policy Analysis, Theory, Politics, and Methods*, CRC Press, Boca Raton, Florida, p. 79-87.

Spillane, J. P., Reiser, B. J., and Reimer, T. (2002). “Policy Implementation and Cognition: Reframing and Refocusing Implementation Research”, *Review of Educational Research*, Vol. 72, No. 3, p. 387-431.

Tahtalıoğlu, H. ve Özgür, H. (2016). “Türkiye’de Kalkınma Ajansları Politikasının Çözümlemesi: Süreç Analizi (Aşamalar Yaklaşımı)”, *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, Cilt: 9, Sayı: 3, s. 161-184.

Tamzok, N. (2007). *Kamu Politikası Analizi: Elektrik Enerjisi Sektörü*, Basılmamış Doktora Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.

Torlak, S. E., and Kulaç, O. (2016). A Comparative Analysis of the Regional Development Agencies Projects in European Union Countries and Turkey”, *Lucrarile Seminarului Geografic Dimitrie Cantemir*, Vol. 42, No.1, p. 81-92.

Weible, C. M. (2014). “Introducing the Scope and Focus of Policy Process Research and Theory” Sabatier, P. A. and Weible, C. M. (Eds.), *Theories of the Policy Process, 3rd Edition*, Westview Press, Boulder, Colorado, p. 3-21.

Yıldız, M. ve Sobacı, Z. (2013). “Kamu Politikası ve Kamu Politikası Analizi: Genel Bir Çerçeve”, Yıldız, M. ve Sobacı, Z. (Ed.), *Kamu Politikası Kuram ve Uygulama*, Adres Yayınevi, Ankara, s. 16-42.

Yılmaz, M. A., and Kulaç, O. (2016). “An Analysis of Smoking Policy Attitudes of Low-Income Group and Cigarette Consumption Patterns Upon Increased Wage”, *European Scientific Journal*, September Special Edition, p. 82-90.

A Comparison of Childhood Obesity, Technology, Exercise and Academic Habits Among Urban and Suburban Students in Ohio

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Abstract

Nearly 40% of children in the U.S. are overweight or obese and there has been a need to determine what factors contribute to these obesity rates among children. The authors examined over 600 children in Ohio, grades K-8, in two urban and four suburban school districts regarding their behavioral patterns in relation to childhood obesity, exercise and academic habits. A questionnaire was administered to each student by a school counseling intern. The authors interviewed children and asked questions related to their eating habits, exercise, family dynamics, use of technology and study habits. From their results, the authors propose a number of interventions that they believe can be helpful for these children.

Keywords: Childhood Obesity, Urban/ Suburban Schools

Introduction

Obesity rates are increasing at alarming rates in the United States with over 27% of all children and adolescents identified as obese with nearly an additional 10% of children considered overweight. The purpose of our study was to interview approximately 600 children in both urban and suburban schools in Ohio in order to examine behavioral patterns related to exercise, food consumption, technology use, and academic study.

Literature Review:

The dominance of obesity among children, adolescents and young adults has reached epidemic proportions globally. The Centers for Disease Control and Prevention define overweight in two to nineteen year old children as a body-mass index (BMI) at or above the 85th percentile for

children of the same age and sex, and obesity as a BMI at or above the 95th percentile (Lee et al., 2012). Lee and colleagues (2012) found that approximately 1 in 10 infants/toddlers continue to be at or above the 95th percentile on weight-by-height growth charts, and 1 in 6 older children or adolescent is obese. In 2008, obesity prevalence was approximately 21% among Hispanic children, 15% among Caucasian children, and 20% among African-American children (Lee et al, 2012). Furthermore, 1 in 7 low-income children younger than 5 years of age is obese.

As stated, the issue of overweight and obese youth is a global issue. It is estimated that there are currently 18,000,000 overweight children worldwide (Ebbelung, Pawlak, & Ludwig, 2002). The following table displays percentages of overweight and obese children according to their age group and their residing nation.

Nation	Age	Percentage of overweight/obese children
Hungary	11-14	6
Poland	11-14	18
Australia	6-13	30
New Zealand	6-13	30
United States of America	6-13	25.5
Israel	6-13	13.9
Ireland	6-13	24.7
France	6-13	11.4
Greece	6-13	28.7

(Lobstein & Frelut, 2003; McCarthy, 2004; WHO 2005)

Contributing Factors

There are various factors that contribute to a child being overweight or obese. Behaviors that increase obesity potential are often acquired through role modeling. Children often mimic their primary caregivers' behaviors. Thus, if the parent or guardian of a child over eats, it is likely that the child will also over eat. Broedsgaard (2006) found that children with one or two obese parents are respectively either 40% or 80% more likely to develop obesity.

Exercise is also an important factor because it helps a child maintain an appropriate metabolic rate, improves the overall psychological outlook, and it may be an aid in controlling one's appetite (Roberts, 2000). When a child repeatedly consumes more calories than recommended, and does not engage in any type of physical activity, weight gain will likely occur. McMurray, Hurrell, & Deng (2000) found that video games, cell phones, computers, and other technology devices were debilitating to the physical health of the youth population.

Many studies concur that the largest contributing factor to a child being overweight is their caloric intake. The youth population in the U.S.

often consumes lunch that has been prepared by the school. Madden and his associates (2013) reported that school lunches contain high levels of saturated fats. In addition, school lunches rarely incorporate fresh fruits and vegetables into meals. Schools are known to classify food items like ketchup and tomato puree found on pizza as vegetables. The Food Research and Action Center (2010) reported that there are 29 million children in more than 98,347 schools and residential childcare institutions in the United States. 19.6 million children are involved in the school lunch program, and receive free and reduced lunches. Thus, more than half of the children that attend a school or institution in the United States consume school lunches on a daily basis.

Method

School counseling interns interviewed 600 children (340 urban, 260 suburban) in grades K-8 in two urban and four suburban school districts in Ohio from the years 2012-2015. A standard questionnaire was used for all questions and items were explained if there was any confusion on the part of the student or there were language difficulties. Percentages of response per question were determined and compared between urban and suburban students.

Results Summary

Family Household

	Urban %	Suburban %
Students who only had a mother in their family household	82	11
Students who had a mother and father in their family household	18	83
Students who were in good health	35	85
Students who were in fair/poor health	57	13

Ethnic Background

African-American students	83	3
Caucasian students	4	89
Latino students	10	2

Family System Nutrition

Student who were part of the school lunch program	100	23
Students who had a parent/guardian that smoked tobacco	53	17
Students who had a parent/guardian that cooked meals	86	92
Students who had a parent/guardian that worked outside of home	82	87
Students who did not have a parent/guardian that worked outside the home	17	13
Students who had a parent/guardian that was a high school graduate	55	83

Students who had a parent/guardian that took them to the dentist once a year	72	87
Students who had a parent/guardian that took them to the doctor once a year	79	93
Students who had a parent/guardian that complained about not having enough money for food	48	13

Student's Nutritional System

Students who were hungry most of the time	35	13
Students who missed a meal	67	32
Students who ate school meals	71	55
Students who liked school meals	20	65
Students who thought they were overweight	35	32
Students who did not think they were overweight	60	69
Students who did not like how their body looked	49	78
Students who got teased or bullied about their weight	10	13
Students who get teased or bullied about how they looked	28	21
Students who ate fruit every day	64	68
Students who ate vegetables every day	39	63
Students who ate cookies, chips, crackers, candy (junk food) every day	57	53
Students who had been on a diet	42	18
Students who thought they were sick more than their friends	17	5
Students who missed many days of school	32	17

Family Reading/TV/Computer use

Students who did liked to read	35	53
Students who studied at home each day	21	65
Students who liked math	46	86
Students who did not have a parent/guardian that helped with homework	21	85
Students who played a sport	54	72
Students who exercised each day for 30 minutes	46	63
Students who had a regularly scheduled bedtime	35	82
Students who watched TV every day	53	77
Students who played video games every day	28	33
Students who used a computer at home	38	70
Student who had their own personal computer	40	62
Student who had their own personal cell phone	32	53
Student who used Facebook or Twitter	55	81
Students who had a family member that read a newspaper	34	68
Students who helped cook meals	55	71
Students who helped with grocery shopping	35	73

References:

Ben-Sefer, E.E., Ben-Natan, M.M., & Ehrenfeld, M. M. (2009). Childhood obesity: current literature, policy and implications for practice. *International Nursing Review*, 56(2), 166-173. doi:10.1111/j.1466-7657.2008.00708.x

Broedsgaard, A. (2006). *Obese mothers experiences and assessments of their own obesity and their children's risk of developing overweight-a qualitative phenomenological study.*

Presented at Western European Nurses' Research Meeting, Copenhagen, October 12, 2006 Buttriss, J.L. (2006). Stark reality-statistics on childhood obesity. *Nutrition Bulletin* 31(3), 175-177. doi:10.1111/j.1476-3010.2006.00569.x

Ebbelung, C.B., Pawlak, D.B., & Ludwig, D.D. (2002). Childhood obesity: public health crisis, common sense curve. *The Lancet*, 360(10), 473-482

Food Research and Action Center. (2010). *National school lunch program.* Retrieved from <http://frac.org/federal-foodnutrition-programs/national-school-lunch-program/>

Kalavainen, M.P., Korppi, M.O., & Nuutinen, O.M. (2007). Clinical efficacy of group-based treatment for childhood obesity compared with routinely given individual counseling.

International Journal Of Obesity, 31(10), 1500-1508. doi:10.1038/sj.ijo.0803628

Lee, J.Y., Caplan, D.J., Gizlice, Z., Ammerman, A., Agans, R., & Curran, A.E. (2012). US

Pediatric Dentists Counseling Practices in Addressing Childhood Obesity. *Pediatric dentistry*, 34(3), 245-250

Lobstein, T. & Frelut, M. (2003). Prevalence of overweight among children in Europe. *Obesity Review*, 4, 195-200

Madden, A.M., Harrex, R.R., Radalowicz, J.J., Boaden, D.C., Lim, J.J., & Ash, R.R. (2013). A kitchen-based intervention to improve nutritional intake from school lunches in children aged 12-16 years. *Journal of Human Nutrition & Dietetics*, 26(3), 243-251. doi:10.1111/jhn.12037

McCarthy, M. (2004). Curbing the obesity epidemic. *The Lancet*, 376, 1549.

McFarlin, B., Johnston, C.J., Carpenter, K.C., Davidson, T., Moreno, J.L., Strohacker, K., & Foreyt, J.P. (2013). A one-year school-based diet/exercise intervention improves non-traditional disease biomarkers in Mexican-American children. *Maternal & Child Nutrition*, 9(4), 524-532. doi: 10.1111/j.1740-8709.2011.00398.x

McMurray, R., Hurrell, J., & Deng, S. (2000). The influence of physical activity, socioeconomic status, and ethnicity on the weight status of adolescents. *Obesity Research*, 8, 130-139

Roberts, S. (2000). The role of the physical activity in the prevention and treatment of childhood obesity in childhood. *Pediatric Nursing*, 26(1), 33-41

WHO (2005). Fact sheet Copenhagen 2005, the challenge of obesity in the WHO European region. 3

New Classics: The Analysis of Classical Music Album Covers' Digital Age Characteristics

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Abstract

The aim of this paper is to analyze the digital age characteristics of the classical music album covers at the turning point of the new millennium based on the six main principles of graphic design, which are unity/harmony, balance, hierarchy, scale/proportion, dominance/emphasis, and similarity/contrast visually. The word *classic*, which based on classes or classifying can define three different aspects of something: the best as quality, the whole as characteristics, and the absolute as and above everything. Music as a mean of artistic expression formed by sound and silence during a time period, according to its components like pitch, rhythm, dynamics, and sonic qualities like timbre and texture. Although European classical art music last its period between 1750 and 1820, the phrase *classical music*, which first used in 19th century today represents the period between composers Bach (1685-1750) and Beethoven (1770-1827). Since the recording technologies occurred in late 1980's, another field of design already born developed as a multi complementary discipline. *Album cover design* is a special department of graphic design, which is the pre-production process of a printed and formatted two-dimensional surface. Album cover design based on six main graphic design principle, which combined to the content, components and the characteristics of the recorded music.

Keywords: Album cover design, classical music, graphic design

Introduction

Graphic design, as a design discipline is the decision process before production of two dimensional surfaces by printing, painting or reflecting on digital screens. Music industry is one of the countless fields, which graphic design serves. Since music recorded on a medium and these mediums became wide, labelling made by graphic design. Recorded mediums placed in packages for protecting purposes. Package design as whole is one of the many working areas of both graphic design and industrial design. The type of the material, the package made of and the production technique and

process of a package belongs to the area of industrial design. Industrial design is the process of design applied to products that are to be manufactured through techniques of mass production. Mass production is the production of large amounts of the standardized products, including and especially on assembly lines. The industrial design's key characteristic is that design is separated from manufacture: the creative act of determining and defining a product's form and features takes place in advance of the physical act of making a product, which consists purely of repeated, often automated, replication. On the other hand, printing industry works for producing packages made by different materials like any kind of paper, fabric, wood and plastics. The visual characteristics of all the two-dimensional surfaces of a package as one by one and as a total belong to the area of graphic design. The better the two design disciplines cooperate, the better the final package produces. (Batchelor, 1994; DuPuis & Silva, 2011; Gronow & Saunio, 1999; Groth, 2006; Hauffe, 1998)

An effective graphic design is a design, which formally and contextually consistent. A consistent design can be made by organizing the design elements according to the design principles. Like the general principles of design every design field has its own elements and principles. These elements and principles are formed by the design area, production techniques and materials. In between of many the main six principles of graphic design are unity/harmony, balance, hierarchy, scale/proportion, dominance/emphasis, and similarity/contrast. (Dabner, Calvert & Casey, 2010; Wong, 1993)

It can be observed that there is a remarkable change on album covers of classical western art music. The aim of this paper is to analyze the classical music album covers' digital age characteristics by comparing the usage of the main six graphic design principles before and after 2000s, at the turning point of the new millennium.

Music as a mean of artistic expression formed by sound and silence for a defined duration and has components like pitch, rhythm, dynamics, and sonic qualities timbre and texture (Berry, 1987; Goodall, 2013). Although European classical art music last its period between 1750 and 1820, the phrase *classical music*, which first used in 19th century today represents the period between composers Johann Sebastian Bach (1685-1750) and Ludwig van Beethoven (1770-1827). The classical period begins with Baroque / Classical Transition, continues with 1750-1775, 1775-1790, and ends with 1790-1820 periods. (Griffiths, 2006; Taruskin, 2009)

The word *classic*, which based on classes or classifying can define three different aspects of something: the best as quality, the whole as characteristics, and the absolute as and above everything. In the middle of 18th century in Europe a new style born in architecture, literature and in the

arts called Neoclassicism. Classicism phrased and as a conclusion Neoclassicism imitated the classical antiquity, which is the classical era of ancient Greek and Roman imperial period. Natural philosophy, which describes the practice of studying nature lays under this as a strong base. Systematic study of nature and the taste for structural clarity began to affect music like the other art branches. (Bietoletti, 2005; Janson & Janson, 2003)

Baroque music was a dense, complex polyphonic music. Multiple independent melody lines performed simultaneously in choral and instrumental works. Tonality, writing music in a particular key – a group of pitches, was created in Baroque era. More elaborate musical ornamentation, improvisation the performers made, changed the musical notation and new instrumental playing techniques developed. (Buelow, 2004; Davison & Apel, 1950; Taruskin, 2009)

The layered polyphony of the Baroque left over and music moved towards homophonic style. A fine piece of music, the melody is played over a subordinate harmony, which is the combination of simultaneously sounded musical notes to produce chords and chord progressions, any harmonic set of usually three or more notes. (Rushton, 1986; Samson, 2002)

One of the many aims of this paper is to determine the reflections of digitalization on classical music album covers after 2000s. Digital age, today the world live in is a conclusion of the third revolution in human history. Digital industry creates a knowledge based society with the help of computer miniaturization. This evolution of technology in daily life and social organization has reflections on every aspect of life. Among many, only Bach and Beethoven's compositions performed albums have chosen randomly 8 before 2000s, 50 after 2000s and analyzed. (Charlesworth, 2009; Merritt, 2016)

The Analysis

On randomly chosen classic music album covers of the Bach and Beethoven compositions, before 2000s, at first sight 13 different themes seen. These themes are the composer, maestro, performer, musical instruments, sheet music, typography, painting, sculpture, architecture, landscapes, flowers, curves, and cross, on which the Jesus Christ crucified.

On randomly chosen classic music album covers of the Bach and Beethoven compositions' after 2000s, it is seen that some themes continuing and some new themes occurred. These new themes are the landscape architecture, minimalist art, fine art photography, geometric shape, organic shape, texture, pattern, and digitalization, which are 8.



Figure 1 Composer Themed Covers, 1st Before 2nd and 3rd After Author's Collection



Figure 2 Maestro Themed Covers, 1st Before 2nd and 3rd After Author's Collection



Figure 3 Performer Themed Covers, 1st Before 2nd and 3rd After Author's Collection

Pre-2000s themes are related to the concrete and abstract characteristics of music. Concrete characteristics are the one which can interpret visually as they seen. Bach and Beethoven's real life documentary portraits both as drawing and sculpture are used as they are on the covers before 2000s. After 2000s these portraits re-interpret by the contemporary artists in different art forms like silkscreen printing, digital art, and contemporary sculpture techniques. These contemporary artworks used on the covers for a contemporary look to take attention of the new audience of the digital age. Similar approach can be seen on the covers themed as performer, maestro, and musical instrument. Performer and maestro's colored real life photographs left their place unusual scenes, new photographing techniques, digital photography and digital effect technology.

A digital fine arts artist can add new characteristic to a regular photograph by using special software. Musical instruments also re-photographed with a new point of view, re-sized, cropped and interpreted by new possibilities of the digital technology. The output is more abstract and more symbolic. The audience can see the perfection of the details of a huge organ or can combine the physical characteristic of a piano in his/her daily outdoor life.



Figure 4 Musical Instrument Themed Covers, 1st Before 2nd and 3rd After Author's Collection

Another concrete theme before 2000s is sheet music. The pages of staves with the notes on them photographed with a new point of view, blurred, re-scaled and combined with other abstract elements like regular geometric shapes. For a new look their color can change and new characteristics can add like texture.

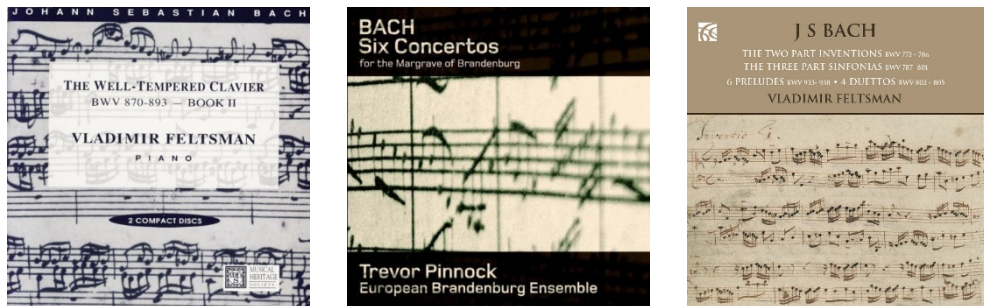


Figure 5 Sheet Music Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

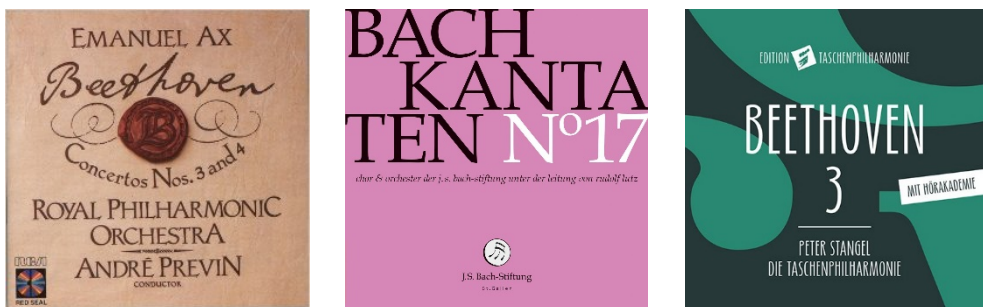


Figure 6 Typography Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

Typographic elements are letters, numbers, punctuation marks and other sign and symbols used for writing and calculation or formulating. Another solution for covering can made by using only typographic elements without any visual. Before 2000s, two or three type character placed in front of a pale ground. In a closed composition the words centrally aligned. Only features which take the attention is the brush script used and curved form of the line combined with a seal under. This typographic setting left its place after 2000s to a new approach. Instead of a plain ground, a divided dynamic figure-ground, which interacts with used. Unexpected colors like lilac and bright greens are the ones never used on classical music stages, instruments and costumes. Organizing the surface in an unequal asymmetrical way is another digital age characteristic. Leaving an empty half is a new approach, which calms the eye while the other half tired. Size contrasts between the element groups are help to emphasizing and building a hierarchy among them. Using artworks for the classic music covers makes a resemblance between the beauty of fine arts and classical music. An abstract characteristic became concrete with the help of these fine artworks. Before 2000s placing a beautifully harmonious painting, sculpture or a classical piece of architecture in the middle of a cover was enough to visualize the art music. The typographic elements squeezed around as a must have and do. But after 2000s to a better visualization the scope of this artworks changed as theme, context and style. Even the subject figures are the same, the mood they are in or the color scheme used give them a different role. The creation techniques of these artworks have changed decades ago.

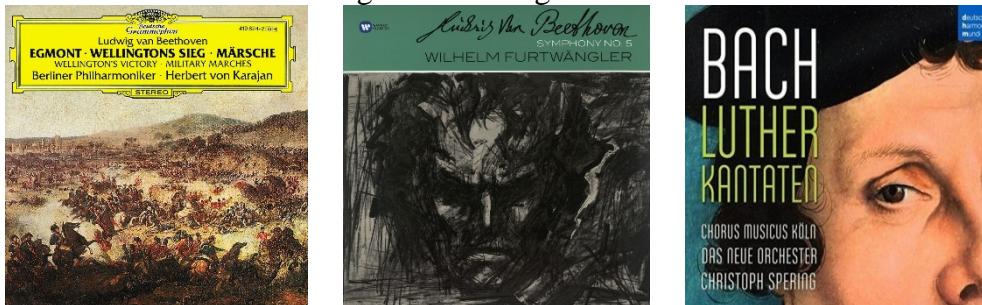


Figure 7 Painting Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

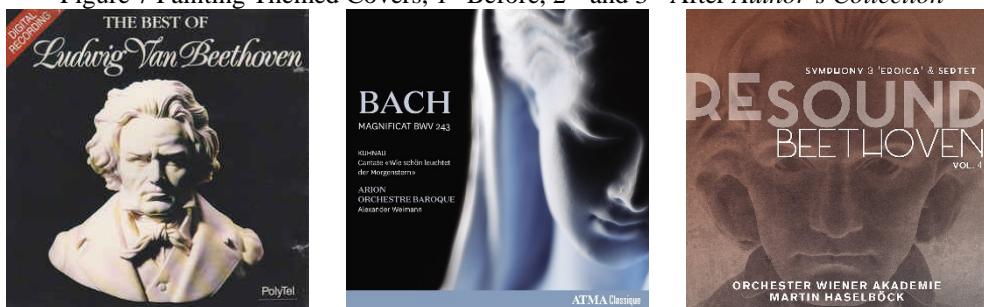


Figure 8 Sculpture Themed Covers, 1st Before, 2nd and 3rd After Author's Collection



Figure 9 Architecture Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

Bach and Beethoven have religious themed compositions like St. John Passion. These works have covers with special scenes, signs and figures. Before 2000s paintings with special themes like crucifixion of the Jesus Christ used. But in time the scene simplified and turned into the major sign on Christianity, the Holy Cross. Besides the happy message of the red colored heart – cross combination, there are also fragmented colorless sad messages. After 2000s finally the typographic elements playing leading or supporting roles in these plain atmospheres.

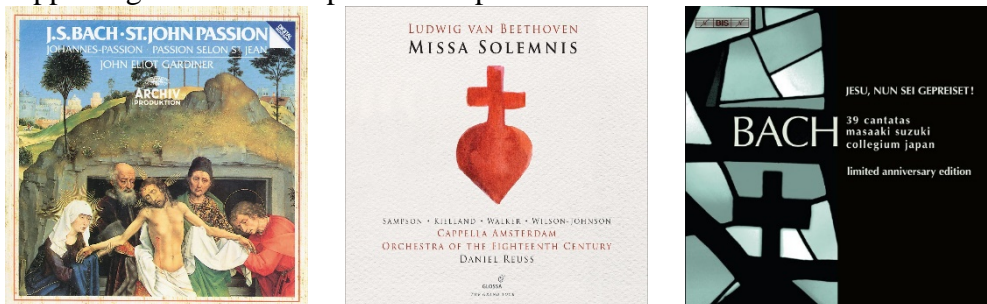


Figure 10 Cross Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

Nature with its beauty is another visual source for the classical music covers. Emulating nature by painting, drawing and photographing always was the goal of fine arts. In digital age art works with new techniques gained endless visual creation possibilities. Before 2000s manual photographs used to cover music albums. Digital photography in a combination with digital effects made by computers are astonishing. Now a photograph can have different levels of reality with its physical features. While pure yellow sun set creates an extra sadness, blueish rocks with ultra-white clouds changed the world we live in like another world.



Figure 11 Landscape Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

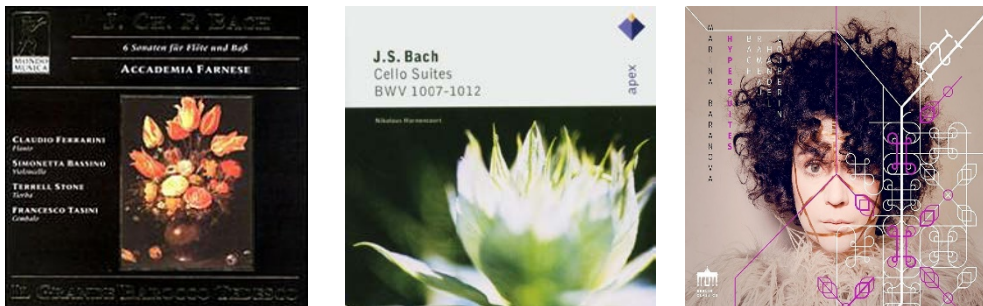


Figure 12 Flower Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

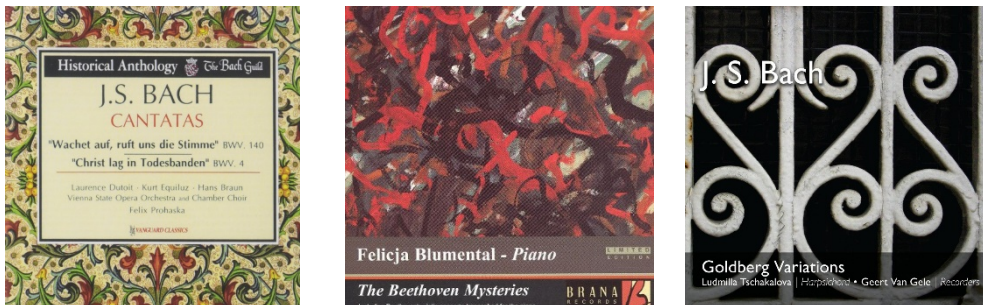


Figure 13 Curves Themed Covers, 1st Before, 2nd and 3rd After Author's Collection

The first new theme occurred after 2000s is landscape architecture. Beautiful gardens made by masters belong to the classical buildings. These beautiful gardens shaped by the artistic principles on the base of their own beauty. If it is painted the beauty of it will be triplex like the classical music, which can be accepted a first class. If the garden is a multi-pieced unity the typographic elements contribute it with their plainness. White sans serif typography is the basic form the letters can be. If the garden has a minimalistic view, then the typographic elements curving a little to add some grace. It is obvious that in nature there is a harmony, harmony of the contrasts. Like another kind of beauty in minimalistic gardens, minimalistic artworks have also a calm beauty, which give peace to hearts. Minimal

number of dots, lines, shapes and colors supported by types in small sizes in order not to increase the number of the elements.

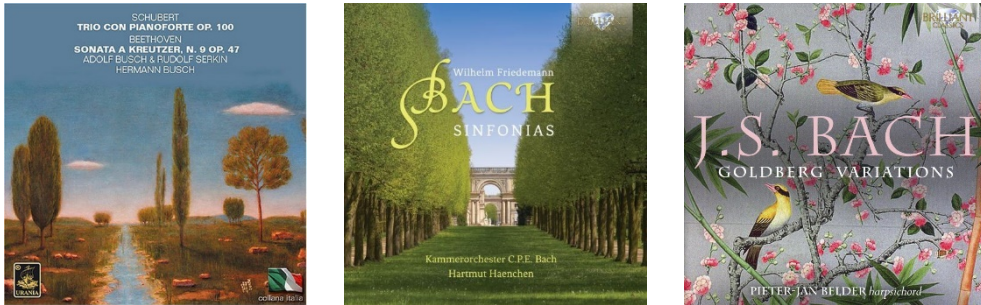


Figure 14 Landscape Architecture Themed Covers, All After *Author's Collection*

Besides many fields of photography, fine art photography differentiate with its artistic purpose, elements and principles. After 2000s as a mean of artistic expression photographs began to use on the covers of classical music albums. Because of small sizes of the album covers these photographs covers the surface for maximum effect on the audience. To be united, typographic elements works with the figures of the photographs; colored, sized, grouped and placed to increase the emotion, which will be created by.

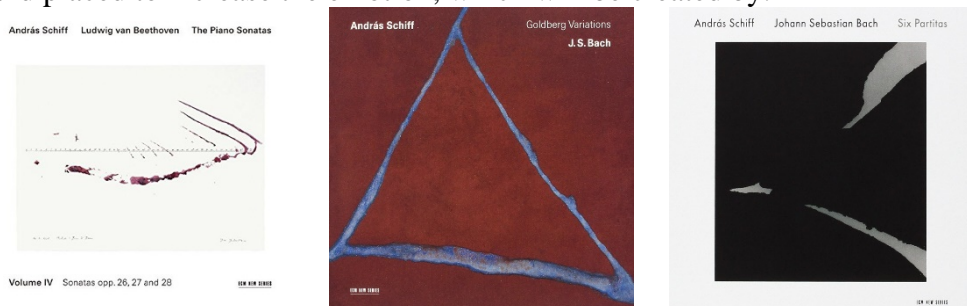


Figure 15 Minimalist Art Themed Covers, All After *Author's Collection*



Figure 16 Fine Art Photography Themed Covers, All After *Author's Collection*

And finally, in this last group of classical music album covers some basic design elements occurred as main themes as a part of post-modern graphic design. When graphic design and design elements formed, both the designer and first samples of graphic design were all post-modern. There

wasn't any one unified graphic style, the movement was an expressive and playful time for search for more and more. Geometric shapes, organic shapes, texture, pattern are some of the basic graphic design elements. The covers with the geometric and organic shapes, textures, and patterns on them are neutral as color schemes, and asymmetrically balanced with the positioning, size and colors of the typographic elements. Sizes are small as they can, colors contrasting with the ground and types are modern sans serif characters.



Figure 17 Geometric Shape Themed Covers, All After *Author's Collection*



Figure 18 Organic Shape Themed Covers, All After *Author's Collection*

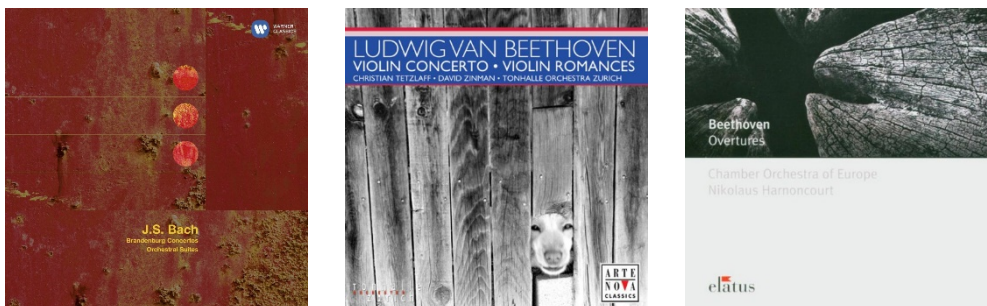


Figure 19 Texture Themed Covers, All After *Author's Collection*



Figure 20 Pattern Themed Covers, All After Author’s Collection

Digitalization is the final theme group of the classical music covers after 2000s. Digital age’s technological improvements and devices have their own special and newly developed display unit and screen indicators, signs, and symbols. After a while with the increasing number of user these indicator, signs and symbols gained direct resemblance with the digitalization. Besides these, another strong relation among musical instruments’ metallic parts and digitalization formed. Highly fragmented bright or metallic colored parts seen on the covers of last three albums.



Figure 21 Digitalization Themed Covers, All After Author’s Collection

Conclusion

Before 2000s there were ‘13’ themes, and these themes continuing. After 2000s ‘8’ new themes occurred. Pre-2000s themes are related to the concrete and abstract characteristics of music. Pre-2000s compositions are generally symmetrically balanced. Pre-2000s all visuals are realistic. Post-2000s themes are related to only the abstract characteristics of music. Both these concrete and abstract characteristics belongs to the same musical style. After 2000s even concrete characteristics interpreted as abstracts. After 2000s only modern serified and sans serif typography used. Both before and after 2000s neutral colors used sometimes with a bright color in small amounts.

References:

- Batcheloy, R. (1994). *Henry Ford: Mass Production, Modernism and Design*. Manchester: Manchester University Press.
- Berry, W. (1987). *Structural Functions in Music*. Mineola, NY: Dover Publications.
- Bietoletti, S. (2005). *Neoclassicism and Romanticism*. New York, NY: Sterling Publishing.
- Buelow, G. J. (2004). *A History of Baroque Music*. Bloomington, IN: Indiana University Press.
- Charlesworth, A. (2009). *The Digital Revolution*. London: Dorling Kindersley.
- Dabner, D., Calvert, S. & Casey, A. (2010). *Graphic Design School: The Principle and Practices of Graphic Design*. London: Quarto Publishing.
- Davison, A. T. & Apel, W. (1950). *Historical Anthology of Music: Baroque, Rococo, and Pre-Classical Music*. Cambridge, MA: Harvard University Press.
- DuPuis, S., & Silva, J. (2011). *Package Design Workbook: The Art and Science of Successful Packaging*. Beverly, MA: Rockport Publishers.
- Goodall, H. (2013). *The Story of Music*. London: Chatto & Windus.
- Griffiths, P. (2006). *A Concise History of Western Music*. Cambridge: Cambridge University Press.
- Gronow, P., & Saunio, I. (1999). *An International History of Recording Industry*. New York, NY: Cassel.
- Groth, C. (2006). *Exploring Package Design*. Clifton Park, NY: Delmar Cengage Learning.
- Hauffe, T. (1998). *Design: A Concise History*. London: Laurence King Publishing.
- Janson, H.W. & Janson, A. F. (2003). *History of Art: The Western Tradition*. Upper Saddle River, NJ: Prentice Hall Professional.
- Merritt, B. (2016). *The Digital Revolution*. San Rafael, CA: Morgan & Claypool Publishers.
- Rushton, J. (1986). *Classical Music: A Concise History from Gluck to Beethoven*. London: Thames and Hudson.
- Samson, J. (2002). (Ed.), *The Cambridge History of Nineteenth-Century Music*. Cambridge: Cambridge University Press.
- Taruskin, R. (2009). *Music in the Seventeenth and Eighteenth Centuries*. Oxford: Oxford University Press.
- Taruskin, R. (2009). *The Oxford History of Western Music*. Oxford: Oxford University Press.
- Wong, W. (1993). *Principles of Form and Design*. New York, NY: John Wiley & Sons, Inc.

The Development of Academic Identity in Community Schools

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Abstract

This article explores the development of academic identity in community schools. It highlights examples of program and services in different school districts in the United States. It also describes different components of effective community schools and how the community is integrated in the life of the school. It uses a case study approach of John Spry Community School in Chicago. Community schools provide on-going learning for all members of the school community. They provide an alignment of systems that foster a productive, collaborative and culturally responsive culture with high academic growth for all learners. All educational stakeholders including parents and community members accept and follow-up with shared accountability standards. This article substantiates effective practices which promote the full participation of the school community in programs and activities.

Keywords: Academic identity, community schools, expand boundaries

Introduction

Academic Identity is developed by how students perceive their school and the connection they feel to their education. Higher student achievement requires strong academic identities and strong academic skills. It connects to the way students perceive themselves as learners. Therefore, it is a critical factor in school achievement, motivation and success. Academic identities are also constructed by social interactions and schools are the primary source for social interactions. Frequently the lack of attainment in academics can be attributed to the difficulty of attempting to develop a positive academic identity when students are inundated with messages about their own labeling.

Academic identity is also influenced by cognitive and non-cognitive factors. These non-cognitive factors include persistence, drive, curiosity, self-control, resilience and self-worth. It is also influenced by a strong

understanding of cultural heritage. Students receive significant comfort and support from others who share similar experiences. There are also social variables that affect academic identities. Parents, peers, teachers, community members and other individuals influence students' academic development.

I.

Community schools attend to the engagement of students regarding their performance so all members of the school community need to understand how best to help students become effective learners. Perseverance and academic behaviors reflect the level of student engagement doing challenging work and completing tasks. Students develop mindsets that in turn influence the degree to which students engage in learning strategies and academic behaviors. Developing students' academic mindsets and teaching them learning strategies improve academic identities. Students' sense of belonging, motivation and self-efficacy will be shaped by the experiences they encounter in their community school. Their interactions in the school community driven by a strong belief about what they can accomplish can have a positive impact in their academic identities. Students' ability and effort will be guided by a growth mindset based on learning opportunities and messages from the school community. Community schools create contexts to support academic success and develop the attitudes necessary. They can also sustain positive impacts in student learning across different contexts as they move from the school to their homes and other community settings.

School culture and environment play a key role in students' performance. Community schools can transform schools from just testable academic skills into the full development of students as learners. The major strength of a community school has to do with collective impact, which begins with the quality of the classroom and extends itself to the community. Community schools change the way community challenges are defined and how resources and assets are integrated to support students. The complimentary skills of community partnerships enhance the critical work of educators in the community schools. The integration of school, family and community fosters the development of student leaders and builds social capital in communities. Community schools can create bonds of reciprocal accountability and grow social capital. They also expand boundaries beyond the school walls to strengthen neighborhoods.

By expanding their boundaries, schools become stronger and engage parents and the community (Chadwick, 2003). Schools have the power to become the focus of the community, connected to daily lives and experiences and thus can share the educational responsibilities with other partners. When the school sees itself as the hub of its community – and perhaps the most

important institution – it sets itself up as a node in a complex web of critical relationships within a community; it also acknowledges its power and uses that power to mobilize groups, provide services, and educate citizens (Dryfoos & Maguire, 2002). The list of attributes is nearly endless, but here are a few specific things comprehensive community schools do to serve their neighborhoods:

- *Extended School Days.* When designed in meaningful ways, an extended school day can help at-risk children capitalize on their strengths so they grow up to be competent, caring and responsible. Opportunities can include a variety of academic, social, and recreational activities to accommodate different learning needs and styles.
- *Parent Education.* With a seamless connection between what classroom teachers do during traditional school hours and what happens after school, family engagement can occur through English language courses, parenting courses, voter drives, high school equivalency tutoring, and so forth. Schools can also offer childcare services, and they can tie such classes into extended day activities so that all members of a family can be at school at once. In many cases, schools assume that junior colleges can take care of such needs; however, many parents do not see it as feasible to drive across town or to pay large fees for tuition or childcare. When schools provide these resources, they do so with stronger understandings of local needs.
- *Clinical Partnerships.* Partnerships with health agencies allow schools to offer health fairs, conferences, and physician or dental services to families. By offering space to a physician or dentist, schools can help shape unique healthcare options for their neighborhoods with special attention to the local landscape of insurance, regulations, and costs.
- *Community-building Support.* Family support can be provided through counseling sessions and initiatives on financial education, neighborhood improvement, community safety and immigration rights.
- *Immigration Support.* Especially in neighborhoods populated by immigrants, community schools serve a special function in welcoming diverse cultures and unique talents to our society. In too many communities, as well as the schools within them, new immigrants arrive to the United States only to face an uphill battle in achieving the American dream. Due to current economic pressures, immigration remains in the public eye – and the other schools prefer to hire people who lived in their communities as teachers or staff. Community schools take this sentiment one step further: they are intentional about serving their communities and making their communities desirable places to live. Local residents assist in the hiring of teachers; classes are offered to parents to meet their unique needs; and banks can be brought in to discuss money management.

Unlike schools that are managed from district offices in distant neighborhoods or Education Management Organizations half-way across the country, comprehensive community schools are familiar with the economic climate of their neighborhoods and work to enhance their overall economic vitality. Elementary schools in the Parliament Unified School District in the South Central Los Angeles region provide community-based English tutoring to non-native English speaking parents and other community members; however, instead of teaching English the standard way, teachers – some of whom are also local parents – seek to build parenting and job skills. In one lesson, a group of parents will likely learn tips for checking their children’s homework, as well as strategies for obtaining a job in a tough economic climate. The result, along with many other school-city partnerships, has been a community that is comparatively safe and increasingly attractive for families in the south Los Angeles area.

- *Community Empowerment.* Community schools want to see local residents effectively involved in the life of city and state politics. They don’t just encourage voting; they work to create leadership within and beyond their own neighborhoods. They do not expect their communities to provide them with resources; instead, they work in partnership with families, business, local officials, and agencies to collectively make decisions about the role of the school within the community. Ultimately, they want to give residents in their neighborhoods a voice so that they are full participants in local policies and local institutions. For instance, Community Organizing and Family Issues (COFI), a community-based organization in Chicago which partners with several schools, empowers families to participate in developing policies to enhance educational opportunities for students such as effective and fair discipline programs and student recess. Another example is the Mikva Challenge: Students who participate in this program in Chicago learn about local and national politics by participating in multiple political campaigns and becoming aware of the needs of residents and communities. Several high schools in Chicago develop partnerships with the Mikva Challenge program in order to provide political empowerment strategies for its students and families.

- *Well-rounded Education:* All publicly-funded schools must adhere to state (and now possibly national) academic standards; they must all work to achieve stringent benchmarks. This does not mean, however, that schools should not listen to the educational needs of their neighborhoods. By seeking to understand – and the implement – the essential aspects of local community life within the school’s curriculum, community schools deliberately seek community reinforcement for the academic agenda of the school. Community schools aim to build trust within their neighborhoods so that they can get a better handle on attendance concerns, post secondary culture,

and safety. They do not consider themselves as coming into the curriculum from outside to “save” or “fix” their children or neighborhoods; instead, they seek to be as much a part of the inside of the community as possible. The Tulsa Area Community Schools Initiative (TACSI) operates multiple community schools with comprehensive programs for students, parents and community members. Results demonstrate advances in achievement scores as well as other measures in participating schools. As another example, Schools Uniting Neighborhoods (SUN) in Multnomah County, Oregon, developed community learning centers to support youth and increased achievement scores and other positive results such as attendance and discipline.

With much attention paid to successful community-based projects, it is easy for most schools to think that the only way to develop powerful community wrap-around services is through external funding. Community schools, however, know that to sit around and wait for substantial sums of money is both unwise and disempowering. They believe, instead, that genuine partnerships with local businesses, social services, and politicians is ultimately more empowering to residents and families. And they also realize that doing so may be an essential missing piece in the puzzle on student achievement.

A Case Study of a Progressive School Model

John Spry/Community Links High School is a Pre-K-12 community school in Chicago’s Little Village neighborhood serving a majority of immigrant families (Axelroth, 2009; Azcoitia, 2006). Students have flourished with excellent attendance, above average achievement growth and aiming for 100% graduation rate and post-secondary enrollment. It is a school that is open six days a week with a year-round schedule and longer school day. It is a school where families learn together to improve the quality of life in their communities, city, and country.

The school developed with some very unique practices to better accommodate children and families from the local community. Classes begin later in the day for high school students, as they have tended to respond better to a shift in the school schedule. Students participate in a junior ROTC/physical education program that promotes teamwork and self-discipline and fosters respect and leadership.

In traditional high schools, if students are caught in syndromes of failure, summer school is often used to make up failed classes. The Spry/Community Links model allows students to attend school year-round and complete college entrance requirements in three years and three summers of rigorous work.

Partnerships with post-secondary institutions committed to social justice and high expectations for all students provide dual enrollment classes for advanced college credit. A partnership with Chicago's National-Louis University, as well as other colleges and universities, exemplifies this effort. All students are also expected to complete virtual high school classes. A healthy lifestyle for families is promoted with Alivio Medical Center with a clinic located inside the school.

Spry's students are advocates of issues they regard as vital concerns and become involved in planning what they will be doing. Whenever they are involved with applying ideals such as fairness, equity, and justice to their world, their engagement is more powerful. Therefore, service learning opportunities enrich the curriculum and provide leadership development in order to address community needs. For instance, all high school students serve as tutors in the primary grades. They participate in workshops to enhance their skills as reading buddies and increase their knowledge in the teaching of reading. This experience also conveys the message that they are role models within the community. Internships in agencies surrounding the school expand their experiences to serve other members of the community. And their involvement in other local institutions has included advocacy for a neighborhood public library, a play-lot for preschool children, and peace marches. The students realize that their engagement makes a difference, and they are connected to others through mutual work on common goals.

Conclusion

A community school is not just an additional program. It is a way of thinking, acting, and working together so that students can achieve and families and communities are strengthened for the common good. Spry's particular model is influencing the practices of other schools as they launch efforts to create four additional Pre-K through secondary community schools.

A neighborly community which is inclusive and practices self-determination, localization and integration of delivery services makes all people, institutions and organizations co-determinants of learning and achievement. Academic growth integrated with social and emotional development can be the pillars of a productive life as adults.

As Elizabeth Harrison, a foremost organizer of the American kindergarten movement and the founder of National-Louis University, claimed, "True democracy that will give to every person life, liberty and the pursuit of happiness can be attained when the rights of childhood have been established and the guardians of childhood are consecrated to their work."

References:

Axelroth, R. (2009). *Raising graduation and college going rates: Community high school case studies*. Reston, VA: National Association of Secondary School Principals.

Azcoitia, C. (2006). A new model for student success. *The Hispanic Outlook in Higher Education*, 16, 51-52.

Block, P. (2009). *Community: The structure of belonging*. San Francisco, CA: Berrett-Koehler Publishers.

Chadwick, K.G. (2003). *Improving schools through community engagement*. Thousand Oaks, CA: Corwin Press.

Dryfoos, J., & Maguire, S. (2002). *Inside full-service community schools*. Thousand Oaks, CA: Corwin Press.

Analyzing the Reasons of Occupational Health and Safety Training Students' Profession Choice: A Research at Pamukkale University – Honaz Vocational School

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Abstract

If individuals choose the correct profession for them they will be motivated too much, they will get a better carrier and will obtain more qualified and efficient job. The chosen profession should provide salary and in addition to this the individuals can be satisfied with their profession, so it is important for the students to choose the correct profession. The purpose of this research is to analyze the reasons of occupational health and safety training students' profession choice at Pamukkale University-Honaz Vocational School. 5 Likert Scale is used in the research and the data are analyzed by SPSS. In this research in the first part, the profession definition and the factors that influence profession choice are given, in the second part the importance of choosing the correct profession, in the third part method, methodology and findings are given.

Keywords: Occupational health and safety, Training, University, Profession

Introduction

Today, organizations are in need of qualified staff and for this reason, it is important for every individual to make the choice of the correct profession from the beginning of their school life. Individuals are successful in their professional lives and become qualified workers only when they choose suitable professions matching their skills. Especially when the higher education institutions provide right guidance for young individuals towards their areas of interest, they become workers with higher qualifications and motivation. Choosing the correct profession makes individuals more motivated and they enjoy their jobs.

The Concept of Profession and Factors Affecting the Choice of Profession

The profession is a socially defined set of activities that an individual performs in order to gain their life, based on knowledge and skills acquired through a certain amount of education. Psycho-social factors are important for having a good profession and a job because the individual has endowments, potentials and potential powers. It is important for the individual to reveal, use and develop these. Professional fields are the channels that allow the use and development of such skills. Profession provides fulfillment for the individual through making use of their skills and powers. By having a profession, individuals attribute themselves some value and significance because of doing a job and being productive. Therefore, their self-esteem and self-confidence increase. Then working meets multi-dimensional psycho-social needs of the individual. The profession is the most significant tool for meeting the physiological, psychological and social needs of the individual and it should be chosen with the correct decision, fulfills such needs at a higher level (http://acipayameml.meb.k12.tr/tema/icerikler/mesleki-reheberlik_570621.html).

It is important for the individuals to choose the right profession because their profession affects their entire lives. There are numerous factors that are influential on the choice of profession. For example, as noted by Borchert (2002: 75), the choice of profession should begin with primary targets and continue with open targets. For students, pre-university education is a turning point for taking the big decisions for the future. Choosing a profession is a process that includes experience, decision-making and assessment.

Also, choice of profession can be influenced by gender, personality, area of interest, skills and qualifications, culture, social and economic conditions and future goals from childhood (<http://www.onlinecollege.org/2011/05/17/what-influences-your-career-choice/>).

According to the study by Mugonzibwa et.al. (2000:423), in the process for choosing professions, good experience sharing by professionals as well as attributing reputation to a specific profession are influential. Also, the characteristics of a profession have secondary importance affecting the choosers whereas the third-ranking influence is by the courses' features and geographical location. After these comes the influence of direct gains by a profession and the advice from important people.

In addition to this, as described by Khare (2015), in choosing a profession, contemporaries, graduates, role models, location, economic status and period of time are also influential (<https://www.linkedin.com/pulse/factors-affecting-career-choices-among->

students-dr-anil).

According to the research by Dinc (2008:90), the anticipation for high income and taking responsibility, anticipation for a career, for professional knowledge and skills, for professional experience and social status are the 5 factors that influence the choice of profession.

According to the results of the research by Ozsoy et.al., (2010:910), undergraduate teachers have noted that they chose to become teachers because the profession of teaching is a blessing (54,6%), they have the adequate skills for becoming a teacher (53,4%), they consider it the most suitable job for themselves (47,3%), they love children (46,9%) and becoming a teacher is their ideal (46,9%). As can be inferred from the research, a variety factor may influence the choice of profession.

The Importance of Choosing the Correct Profession

According to Tezel and Arslan (2002), mostly, the choice of profession takes place in the changes and adaptation process during adolescence, during the individual's crisis of finding their identity. Young people are supposed to make, during high school years, decisions that will affect their future and may often undergo instability. Today, choice of profession can be random during university exams. Therefore, the individual may be exposed to the clash between the expectations of their families and their own wishes. It is important for the individual to take up the area which that individual believes to be the most fulfilling and the most achievable (Sirin et.al, 2008:70-71).

In order for the professional education to be successful, it is important to guide the students according to their personal skills, from pre-school education until the end of high school, as it is practiced in the developed world. As the students are guided towards the fields where they are most skilled, the school, the family and the student should cooperate. The most significant resource of Turkey, willing to become a developed country, is the human resource with a young and dynamic demography (Binici and Ari, 2004:384). Investing in human resource and directing people towards the right professions makes a great contribution to national economies. Thus, with the right choice of profession, individuals are able to make more effective use of their potential.

According to Sezgin (1989:1), the primary aim of the professional and technical education is to make the individual gain the basic knowledge, skills and attitude required for getting a job and advancing in that job. To this end, there are many institutions in lower and higher education and these institutions raise up professionals for various levels of the business world (Kazu and Ozdemir, 2004:1).

Method, Methodology and Findings

17 item occupational preference scale developed by Dinc (2008); Sarikaya and Khorshid (2009) was used in the research. All of the questions on the scale consist of the five-member Likert response component on the scale of "distinctly disagree" and "strongly agree".

Aim of the Research

The aim of the research is to examine the factors of work security specialists' profession choices who have education in Occupational Health and Safety Department of Honaz Vocational School of Pamukkale University. This research also examined the demographic factors related to profession choices of Occupational Health and Safety students. The results of the research may be valid for the students of OSH program in other Vocational High Schools and / or Vocational Schools.

Working Group

There are 203 students in OSH program at Honaz Vocational School. 157 of these people have been reached. 6 surveys were considered invalid and the remaining 151 surveys were conducted.

Analysis and Method of the Research

After the normality and reliability tests of the research, descriptive and predictive analyzes and hypothesis tests were performed. Descriptive tests used frequencies and mean methods, whereas Mann-Whitney U test was used for predictive analyzes. Mann-Whitney U test was used to determine whether there was a significant difference between the measurements.

Research Hypotheses

Hypotheses were developed to test whether the demographic components and OSH students' profession choices differed in the study. The hypotheses created in this context are as follows:

H₁: There is a significant difference between gender and reasons for choosing professions of OSH students.

H₂: There is a significant difference between the reasons for choosing the professions and the age of OSH students.

H₃: There is a significant difference between the class of education and the reasons for choosing professions of OSH students.

H₄: There is a significant difference between types of education (formal and evening education)¹ and the reasons for choosing the professions of OSH students.

Reliability and Normality Tests

The Cronbach's index coefficient is calculated by the answers to the questions that are outside the demographic components and which determine the profession choices of the students. Cronbach's Alpha coefficient used for reliability measurement was found to be 0,794. Cronbach's Alpha coefficient is considered "reliable" in the range of 0,60-0,80 (Alpar, 2011). Since Cronbach's Alpha coefficient is within the given range, statistical analyzes can be applied to the data obtained from the questionnaire. While determining the statistical techniques which will be used in the research the basic criterion is making a decision whether parametric tests or nonparametric tests should be used in the analysis.

In order to be able to use parametric tests, some assumptions must be tested. One of these assumptions is the assumption of normality distribution. For the parametric tests to be applied, the H_0 hypothesis, which is established as "the data are normally dispersed", must be accepted. If the hypothesis is not accepted, non-parametric tests should be applied instead of parametric tests.

In this study, the single sample Kolmogorov-Smirnov test was applied to the responses obtained from the questionnaires and to the average to determine whether the data were normally distributed. The hypothesis H_0 was not accepted because the p values for the test statistic were 0,000 for 17 questions (item) and 0,016 for the mean because p values were lower than the significance level of 0,05. The H_0 hypothesis implies the application of nonparametric tests.

Descriptive Findings

The Reasons Why Students in the Study Group Prefer OSH Program

The reasons why students in the study group prefer OSH program are given in Table 1 below.

¹ Formal education is given during the daytime at the universities in Turkey. Evening education; the education which begins at (15:00, 17:00) and continues until the evening (22:00) at the universities in Turkey. There is no difference in academic terms, so the content is the same with the formal education. The same teaching elements are applied to the evening education as the formal education.

Table 1: Reasons for Preference for Occupational Profession of OSH Students

Q. N.	Preference Reason	Percentage
1	It's a profession that I think it will keep valid in the future.	% 80,8
2	I chose it because it was a profession that was always needed.	% 77,4
3	It's easy to find a job after graduation.	%75,4
4	I like the job.	%58,9
5	I chose it because it is a business that requires disciplined and regular work.	%58,2
6	I chose it because it is a business based on trust.	%57
7	I chose it because I can gain high salary.	%56,9
8	I chose this profession to realize my ideals.	%56,9
9	I chose it because it is a business that needs to take responsibility.	%53,6
10	I chose it because it is an appropriate profession for lifestyle.	%43,7
11	I chose it because it was a dynamic and dynamic business.	%43
12	I chose this job because I think that it would gain the knowledge and skill to make it easier to enter other professions.	%42,3
13	I chose it because it is a business that emphasizes my creativity.	% 39
14	I chose it because it was my talent.	%34,5
15	I chose it because of the environment/family/friend influence	%27,8
16	I chose the training because it was simple and easy.	%21,9
17	I chose to finish a university.	%21,8

Source: Based on data collected by the authors.

According to Table 1, students' preference for OSH specialization profession can be listed as future guarantee/job security, easy employment, interest in the profession, high profits, compatibility with their ideals and lifestyle, and environmental impact.

Hypothesis Testing

The test statistics and the results of the hypotheses formed within the research are explained below.

H₁: There is a significant difference between gender and reasons for choosing professions of OSH students.

The hypothesis test for the gender and OSH students' reasons for choosing the profession was done by Mann-Whitney U test. The results obtained with this test statistic are shown in Table 2 below.

Table 2: Gender and Professional Preference Relation

	N	Rank Average	Total Rank	Mann-Whitney U	Wilcoxon W	Z	p
Man	95	79,15	7519,5	2360,5	3956,5	-	0,248
Woman	56	70,65	3956,5				

Source: Based on data collected by the authors.

When the results of the table are examined, the average order of male students is lower than the average of female students. However, the difference between the averages was not statistically significant ($p=0,248>0,05$). The H₁ hypothesis proposed for this reason is rejected.

Accordingly, it can be said that both female and male students who prefer OSH programs prefer this program with similar thoughts and expectations. Because, in today's conditions, the participation of women workers in the labor market is also increasing.

H₂: There is a significant difference between the reasons for choosing the professions and the age of OSH students.

The hypothesis test for H₂ hypothesis was conducted by Mann-Whitney U. The results obtained with this test statistic are shown in Table 3 below.

Table 3: Relationship Between Age and Profession Choice

	N	Rank Average	Total Rank	Mann-Whitney U	Wilcoxon W	Z	p
20 and below	129	78,3	10101	1122	1375	-	0,117
21-30	22	62,5	1375				

Source: Based on data collected by the authors.

According to the table, the rank average about the profession choice of OSH students at below the age of 20 is higher than the average age of 21 and over. However, this difference between the averages is not statistically significant ($p=0,117>0,05$). Accordingly, the H₂ hypothesis was rejected. In this case, the age of the students may be close to each other.

H₃: There is a significant difference between the class of education and the reasons for choosing professions of OSH students.

The hypothesis test was conducted by Mann-Whitney U test to determine whether there is any difference between the class of education and the reasons of profession choice of OSH students. The results obtained with this test statistic are shown in Table 4 below.

Table 4: Relationship Between The Learning Classroom and Profession Choice

	N	Rank Average	Total Rank	Mann-Whitney U	Wilcoxon W	Z	p
First Class	96	69,40	6662,5	2006,5	6662,5	-	0,014
Second Class	55	87,52	4813,5				

Source: Based on data collected by the authors.

According to the results of the table, the rank order of the second-grade students is higher than the average rank order of the first-grade students. This difference was statistically significant ($p=0,014<0,05$). Accordingly, the H₃ hypothesis was accepted.

H₄: There is a significant difference between types of education (formal and evening education) and the reasons for choosing the professions of OSH students.

The hypothesis test was conducted with the Mann-Whitney U test to determine whether there was a difference between the type of education and the reasons for profession choice of OSH students. The results obtained with this test statistic are shown in Table 5 below.

Table 5: Relationship Between Type of Education and Profession Choice

	N	Rank Average	Total Rank	Mann-Whitney U	Wilcoxon W	Z	p
Formal education	69	72,88	5029	2614	5029	-	0,422
Evening education	82	78,62	6447				

Source: Based on data collected by the authors.

When the results of the table are examined, the order average of formal education students is lower than the average of evening education students. However, the difference between the averages was not statistically significant ($p=0,422>0,05$). For this reason, the H_4 hypothesis proposed is rejected. According to this, it can be said that formal and evening education students who prefer OSH programs preferred this program with similar thoughts and expectations.

Conclusion

Today, organizations need qualified staffs and because of that reason, it is important for every individual to make the choice of the right profession from the beginning of their school life. Individuals are successful in their professional lives and become qualified workers if they choose suitable professions matching their skills. Higher education individuals should provide correct guidance for young individuals towards their areas of interest. If the young individuals choose the correct profession for them, they can determine their goals and aims. Choosing the correct profession makes individuals more motivated and enjoy their jobs. Students will also be happy in the business environment if they are progressing towards their will in their profession.

According to the results; students generally prefer this department because it is a profession that will keep its validity in the future and it is a profession that will always be needed. It is also a big influence that it is easy to find a job after graduation. Because students are often concentrated on jobs where they can find work on the job market. The reason why they choose a promising career is their desire for stability in career maps. They are aware that when they are specializing in a particular field, they will make their future professional positions clear. One of the factors in this situation is the improvement of research and development abilities due to the rapid spread of information, as well as the effective use of communication technologies of today's students.

The students also want to ensure their future as they know that it is difficult to find jobs in today's job market. For this reason, they want to work in a more preferred profession. The desire not to suffer difficulties in the future also plays a role in this. On the other hand, the profession which is

suitable for their lifestyles and dynamism isn't very important for them. Also, they are also more concerned about the future.

It is the second plan to achieve the ideal. Because of this reason they prefer to act according to the labor market conditions in the country. It is not enough for them to have just graduated from a university. Also today the number of universities has increased, so the students are aware that if they want to go another department at a different university, they can go there easily.

However, it can be said that evening education students prefer this program with a higher consciousness and higher expectation than formal education students. Because they prefer to use OSH program while they will be able to settle in other programs without paying tuition with lower scores (for students who do not work anywhere). So students may have to force some conditions more.

Also according to the results, the rank order of the second-grade students is higher than the average rank order of the first-grade students. This difference was statistically significant. According to this; after the completion of the first year of tertiary education in the OSH department the reasons of the higher grade of the second-year students may be the program's career, wage, employment, self-actualization advantages and so on. It may be thought that the expectations of the students will be met more advanced than the expectations of the students.

Before choosing the OSH program, the perceptions that the students receive from the external environment and the individual studies are important for students' choice. When the student who chooses the OSH program with the information obtained reaches class 2, he or she may have reached a higher certainty of the validity of the choice. This indicates that the OSH program students internalize the program and also the program's employment opportunities, wage advantages and status can be successfully demonstrated to the students by the program instructors.

As a result, we can say that for students choosing the correct profession is very important for their career. Students must correctly identify their goals and choose their profession accordingly. If they choose the right profession they will be able to use their potential at the highest level. Young people who are particularly oriented towards the jobs can find jobs on the job market and are more conscious.

The purpose of education should be to direct individuals to areas where they can succeed starting from the early phases of life. If individuals are directed towards areas where they can succeed, they will become more qualified. If the individuals are guided towards areas where they can better express and improve themselves, they will be more productive, more creative

and have analyzing skills and strong communication skills and also they can solve problems effectively.

References:

- ALPAR Reha (2011). Uygulamalı Çok Değişkenli İstatistiksel Yöntemler, Ankara: Detay Yayıncılık.
- BINICI, Hanefi ve Ari, Necdet (2004). Mesleki ve Teknik Eğitimde Arayışlar, GU, Gazi Eğitim Fakültesi Dergisi, Vol.24, Nu.3, 383-396
- BORCHERT, Michael (2002). Career Choice Factors of High School Students. The Graduate College University of Wisconsin-Stout.
- DINC Engin (2008). Meslek Seçiminde Etkili Faktörlerin İncelenmesi: Meslek Yüksekokulu- Muhasebe Programı Öğrencileri Üzerine Bir Araştırma, Kocaeli University Social Science Institute Journal, (16)2, 90-106.
- OZSOY Gokhan, Sibel OZSOY, Yasin OZKARA, Aysel D. MEMIS (2010). Factors Affecting Pre-Service Teachers' Choice Of Teaching As A Profession, Elementary Education Online, 9(3), 910-921.
- KAZU, İ. Yaşar ve Özdemir Oğuzhan (2004). Meslek Yüksekokulu Öğrencilerinin Beklentileri (Beklenti Profili) Fırat Üniversitesi Örneği, XIII. Ulusal Eğitim Bilimleri Kurultayı, 6-9 July 2004, İnönü Üniversitesi, Eğitim Fakültesi, Malatya.
- KHARE Anil (2015). Factors Affecting Career Choices Among Students. (<https://www.linkedin.com/pulse/factors-affecting-career-choices-amongH-students-dr-anil>).
- MUGONZIBWA EA, Kikwilu EN, Rugarabamu PN, Ntabaye MK (2000). Factors Influencing Career Choice Among High School Students in Tanzania, 64(6), 423-429.
- SARIKAYA, T., L. Khorshid (2009). Üniversite Öğrencilerinin Meslek Seçimini Etkileyen Etmenlerin İncelenmesi: Üniversite Öğrencilerinin Meslek Seçimi. Türk Eğitim Bilimleri Dergisi 7(2), 393-423.
- SIRIN Ahsen, Renginar OZTURK, Gulsen BEZCI, Gozde CAKAR, Ayden COBAN (2008). Hemşirelik Öğrencilerinin Meslek Seçimi ve Mesleği Uygulamaya Yönelik Görüşleri, Dirim Tıp Gazetesi, Nu:83, 69-75.
- T.C. Milli Eğitim Bakanlığı, Acıpayam Mesleki ve Teknik Anadolu Lisesi, Mesleki Rehberlik, http://acipayameml.meb.k12.tr/tema/icerikler/mesleki-reheberlik_570621.html, 09.09.2016.
- What Influences Your Career Choice?, <http://www.onlinecollege.org/2011/05/17/What-Influences-Your-Career-Choice/>, 09.09.2016.

Delineating the Relationship Between Insomnia, Dysfunctional Sleep Beliefs, Perceived Stress, Anxiety, and Depression

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Abstract

Insomnia is a sleep disorder highly prevalent among university students which can increase the risk for developing anxiety and depression. Vulnerability to dysfunctional sleep beliefs, and cognitive arousal (perceived stress) have been shown to be predisposing factors for insomnia. Although insomnia in university students is associated with deleterious effects, limited research has focused on this at-risk population. The aim of the current study was to further delineate the relationships between insomnia, perceived stress, dysfunctional sleep beliefs, anxiety and depression among a sample of 195 Australian university students (33 males; 162 females; $M_{age} = 22.37$, $SD = 7.02$). Mediation and regression analyses were conducted to test findings. Results suggested the prevalence of insomnia among Australian university students was 16.9% respectively. Regression analyses indicated that anxiety, depression and insomnia all predicted outcomes in each other, indicative of a bidirectional relationship between these variables. Dysfunctional sleep beliefs partially mediated the predictive relationships between perceived stress, anxiety, depression, and insomnia. These findings may have implications for incorporating belief-targeted insomnia treatment into cognitive behavioural therapy for anxiety and depressive disorders.

Keywords: Insomnia, perceived stress, anxiety, depression, dysfunctional sleep beliefs

Introduction

As sleep is recognised as playing an important role in many areas of health and psychological well-being, sleep disorders have become a serious public health concern. Insomnia, the most common sleep disorder, is associated with long-term physical and mental exhaustion, decreased concentration, and cognitive deficits (Morin, LeBlanc, Daley, Gregoire, & Merette, 2006). Emerging research has indicated the academic and social

pressures which accompany university life may lead to a greater prevalence of insomnia among university students (18.5%) than in the general population (7.4%) (Jiang et al., 2015). There is limited empirical information about the prevalence of insomnia among Australian university students. Furthermore, insomnia has been causally linked to a host of specific mental health issues, including anxiety and depression (Wright et al., 2011). Limited evidence suggests insomnia is bi-directionally related to anxiety and depression among the general population, however, no research has been conducted among university students (Jansson-Fröjmark & Lindblom, 2008). While depression and anxiety seem to be important predictors of insomnia, further studies suggest cognitive arousal (perceived stress) and dysfunctional sleep cognitions can lead to the development of the disorder (Harvey, 2002).

The aims of this study were to examine the prevalence of insomnia in a sample of Australian university students and to investigate the bidirectional relationship between anxiety, depression, and insomnia, and the mediating role of dysfunctional sleep beliefs in the relationships between perceived stress, anxiety, depression, and insomnia among Australian university students.

Insomnia, Depression, and Anxiety

Insomnia is defined as difficulties in initiating and maintaining sleep, frequent early morning awakenings, and sleep dissatisfaction (Morin, 1996). Among university students, insomnia has detrimental effects on academic performance (Kelly, Kelly, & Clanton, 2001); is associated with decreased concentration (Maquet, 2001); and increased depression and anxiety (Garlow et al., 2008). Specifically, Gaultney (2010) found that of students at risk of failing university classes, 22% presented with symptoms of insomnia.

Anxiety and depression are the most common comorbid conditions associated with insomnia (Ford & Kamerow 1989). According to Wolfson and Armitage (2009), approximately 90% of young adults with depression suffer from concomitant insomnia. Furthermore, Moo Estrella, Perez-Benitez, and Arankowsky-Sandoval (2005) demonstrated depression was significantly related to delayed sleep onset, and disturbed sleep among students. For the most part, sleep studies investigating the relationship between depression and insomnia have almost exclusively utilised insomnia as a predictor of depressed outcomes (i.e., Ohanyon & Roth, 2003) and few studies have predicted insomnia outcomes from depression. The following study will therefore assess the association between depression and insomnia, by utilising depression as a predictor variable.

There is also a strongly defined relationship between anxiety and insomnia (Palagini et al., 2016). Monti and Monti (2004) purported anxiety is more integral in the development of insomnia than depression among

students because it is more prevalent in this population. Shamsuddin et al. (2013) found the prevalence of anxiety was significantly higher than the prevalence of depression among Malaysian university students, 34% versus 27.5% respectively. Additionally, Alfano, Pina, and Zerr (2010) suggested anxiety forms one of the most robust associations between primary emotional disturbance and insomnia. Despite this, few studies have investigated if anxiety predicts insomnia outcomes, particularly among university students. This paucity in the literature was addressed by utilising anxiety as a predictor variable in the current study.

Recent empirical shifts in the literature to investigate the possible bidirectional relationship between depression, anxiety, and insomnia have been observed (Johnson, Roth, & Breslau, 2006). Findings by Jansson-Fröjmark and Lindblom (2008) suggest the relationship between depression, anxiety, and insomnia among adults was bidirectional when longitudinally investigated. The current study aims to develop the work of Jansson-Fröjmark and Lindblom (2008) by utilising a cross-sectional design, whereby results cannot be compromised by attrition.

Perceived Stress (Cognitive Arousal)

In addition to anxiety and depression, cognitive arousal or perceived stress is a predictive factor associated with the development of insomnia (Bastien, Vallieres, Morin, 2001). Perceived stress is one of the most common predictors of insomnia, precipitating acute insomnia episodes, and perpetuating chronic forms of the disorder (Bastien et al., 2001). Morin and Espie (2012) suggested cognitive arousal is associated with a basal threshold; whereby individuals are more likely to experience insomnia when cognitive arousal exceeds this threshold. Presumably, individuals prone to worry operate at higher levels of cognitive arousal, which subsequently predisposes them to insomnia. The basic premise of this concept is higher levels of perceived stress (cognitive arousal) lead to greater emotional reactivity and subsequent insomnia (Adrien, 2002; Morin & Espie, 2012; Van Reeth et al., 2000).

Jarrin, Chen, Ivers, and Morin (2014) examined the relationship between perceived stress, and insomnia in a sample of adults ($N = 1449$) and found individuals who experienced a temporarily stressful condition were more likely to experience situational and subsequent insomnia than participants who did not perceive the situation as stressful. While this study established an association between perceived stress and insomnia in an adult population. Further research is warranted to examine the factors that may influence the relationship between perceived stress and insomnia. Therefore, the current study aimed to examine the predictive relationship between

perceived stress, dysfunctional sleep beliefs, and insomnia among university students.

Dysfunctional Sleep Beliefs

Cognitive and social theories have suggested negative rumination prior to sleeping, and high levels of perceived stress, may further contribute to symptoms of insomnia (Calkins, Hearon, Capozzoli, & Otto, 2013). Harvey (2002) proposed a cognitive model that suggests insomnia occurs in association with worry and excessive rumination (Calkins et al., 2013). Empirical evidence supports that cognitive processes represent a core element contributing to and perpetuating symptoms of insomnia (Morin & Espie, 2012). Dysfunctional sleep beliefs, pre-sleep worry, and attentional bias towards sleep initiation significantly interfere with the circadian process (Espie, 2002). Harvey (2002) argues individuals with sleep difficulties engage in persistent, uncontrolled negative rumination prior to sleeping. Additionally, Van Egeren, Haynes, Franzen, and Hamilton (1983) found in comparison to good sleepers, insomniacs engaged in significantly more negative thinking prior to nocturnal sleep initiation.

Dysfunctional sleep beliefs are defined as negatively toned beliefs, which represent an individual's erroneous cognitive attempt to avoid the feared consequences associated with severe sleep loss (Harvey, 2002; Morin, 1996). Theadom and Cropley (2008) investigated the relationship between perceived stress and insomnia, in relation to dysfunctional sleep beliefs, among individuals with fibromyalgia ($n = 83$) and healthy controls ($n = 83$). Results indicated relative to healthy controls, fibromyalgia patients had significantly higher levels of perceived stress, endorsed higher levels of dysfunctional sleep beliefs, and had greater disturbed sleep. Findings support the notion that dysfunctional sleep beliefs may further contribute to the development of possible insomnia.

Clinical trials have also demonstrated that dysfunctional sleep beliefs are responsive to treatment, suggesting these may serve as a mediator in reducing insomnia, as well as improving sleep dysfunction (Morin, Blais, & Savard, 2002). To further investigate the mediating effects of dysfunctional sleep beliefs, the following study examined the mediating relationship between perceived stress, dysfunctional sleep beliefs, and insomnia among a non-clinical sample of university students.

Current Study

The aims of the current study were to determine the prevalence of insomnia among university students, as well as examining both the bidirectional relationship between anxiety, depression, and insomnia and the mediating role of dysfunctional sleep beliefs in the predictive relationships

between perceived stress, anxiety, depression, and insomnia among Australian university students. Based on aforementioned insomnia research, it was predicted that: (1) the prevalence of insomnia for the current sample would be similar to that of 18.5%, as reported in previous university samples; (2) the prevalence of anxiety would be higher than the prevalence of depression in the current sample (e.g., Shamsuddin et al., 2013); (3) a bidirectional relationship would exist between anxiety, depression, and insomnia; (4) dysfunctional sleep beliefs would significantly mediate the relationships between anxiety and insomnia, (5) depression and insomnia, and (6) perceived stress and insomnia.

Method

Participants

A convenience sample consisting of 195 University students aged between 18 and 57 years ($M_{age} = 22.37$, $SD = 7.02$) comprised the sample. There were 33 males (16.9%); and 162 females (83.1%). Participants were recruited at Bond University. All participants were required to be at least 18 years of age.

Materials

Insomnia Severity Index (ISI; Morin, 1996). The ISI is a 7-item self-report measure that assesses the nature, impact, and severity of insomnia; Bastien et al., 2001). A total score (i.e., 0 to 28) is calculated by summing item responses, and are categorised into severity ranges: non-clinical insomnia (0-7); subthreshold insomnia (8-14); clinical insomnia – moderate (15-21); and clinical insomnia- severe (22-28). The internal consistency of the ISI is adequate in both clinical and non-clinical populations ($\alpha = .91$; Morin, Belleville, Bélanger, & Ivers, 2011), and in the current sample ($\alpha = .84$).

Depression Anxiety and Stress Scale- 21 (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 is a 21-item self-report measure assessing the presence (i.e., over the past week) of primary emotional disturbances across three subscales: depression, anxiety, and stress. While the depression and anxiety subscales have been widely validated, the operationalisation of the stress construct has been contended (e.g., Clara, Cox, & Enns, 2001). Therefore, the current study utilised the Perceived Stress Scale-Short Form (PSS-10; Cohen, Kamarck, & Mermelstein, 1983) as a specific measure of cognitive arousal (perceived stress). Total scores are calculated by summing subscale responses. The internal consistency of the DASS-21 has been deemed adequate in previous literature ($\alpha = .97$; Sinclair et al., 2012), and in the current sample (e.g., anxiety, $\alpha = .85$, and depression, $\alpha = .90$).

Perceived Stress Scale-Short Form (PSS-10; Cohen et al., 1983).

The PSS-10 is a 10-item self-report measure designed to assess the degree to which persons perceive life events as stressful relative to their ability to cope. Items are designed to assess respondent's feelings and cognitions in the past month towards a stressful situation. A total score (ranging from 0 to 40) is calculated by summing all ten items, whereby higher scores are related to higher levels of perceived stress. The PSS-10 has demonstrated excellent internal consistency both in previous literature ($\alpha = .90$; Karam et al., 2012) and in the current study ($\alpha = .83$).

Dysfunctional Beliefs and Attitudes about Sleep Questionnaire (DBAS-16; Morin, Vallieres, & Ivers, 2007). The DBAS-16 is a 16-item self-report measure which assesses cognitive distortions related to insomnia (e.g., unrealistic sleep beliefs and expectations). A total score is calculated by summing all 16 items then dividing the total by 16. Total scores above four are reflective of unrealistic sleep expectations. The internal consistency of the measure has been deemed as adequate in both community ($\alpha = .79$; Fu, Ou, & Lu, 2014), and clinical samples ($\alpha = .77$), as well as in the current sample, ($\alpha = .89$).

Procedure

Prior to participant recruitment, approval for data collection was obtained through the Bond University Human Research Ethics Committee (BUHREC). Prior to survey completion, participants were required to provide their electronic informed consent as consistent with the explanatory statement by clicking "next". Completion took approximately 35 minutes.

Results

Descriptive Statistics

The prevalence rates of clinical levels of insomnia, depression, and anxiety can be seen in Table 1. A single sample *t*-test indicated anxiety was significantly higher ($t(32) = 5.81, p < .001$) than depression ($t(32) = 4.28, p < .001$) in students with insomnia, supporting hypothesis one and two.

Table 1. Insomnia, Anxiety, and Depression Prevalence Statistics (N = 195).

Variable	Depression		Anxiety		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Insomnia	6.2	12	8.7	17	16.9	33

Preliminary Analyses

To determine whether predictor variables and criterion variables were related prior to entry in the regression equation, simple bivariate correlations were performed on all variables. Table 2 presents uncentered means, standard deviations, and intercorrelations among variables. Perceived stress, anxiety, depression, and dysfunctional sleep beliefs were significantly positively correlated with insomnia, such that higher scores on the predictor

measures (PSS-10, DASS-21 and DBAS-16) were related to higher scores on the criterion measure (e.g., ISI; Morin, 1996). Correlations were also performed on demographic variable age, and a one-way ANOVA was conducted on categorical variable gender to assess for the presence of covariates. While age did not co-vary with any variables, gender was found to significantly co-vary with perceived stress, $F(1, 194) = 4.97, p = .027$. Thus, to control for this covariate, gender was entered in the subsequent mediation analysis that utilised perceived stress as a predictor variable.

Table 2

Summary of Intercorrelations, Uncentered Means, and Standard Deviations for PS, Anxiety, Depression, DSB, and Insomnia (N = 195).

Variable	1	2	3	4	5	<i>M</i>	<i>SD</i>
1) PS	---					17.35	6.38
2) Anxiety	.51***	---				2.98	3.57
3) Depression	.60***	.62***	---			3.60	4.04
4) DSB	.38***	.36***	.40***	---		68.14	28.00
5) Insomnia	.43***	.38***	.41***	.41***	---	9.37	5.27

Note: *** $p < .001$; PS = Perceived Stress; DSB = Dysfunctional Sleep Beliefs.

Bidirectional Analyses

Four simple regressions were conducted to examine the bidirectional relationship between anxiety, depression, and insomnia. Results indicated that anxiety significantly predicted insomnia, $F(1, 194) = 44.02, p < .001$, with higher levels of anxiety relating to higher levels of insomnia, $\beta = 0.10, p < .001$. Additionally, insomnia also significantly predicted anxiety, $F(1, 194) = 44.02, p < .001$, with higher levels of insomnia relating to higher levels of anxiety, $\beta = 0.04, p < .001$, indicative of a bidirectional relationship between these variables. Furthermore, depression significantly predicted insomnia, $F(1, 194) = 36.92, p < .001$, with higher levels of depression relating to higher levels of insomnia, $\beta = 0.09, p < .001$. Similarly, insomnia significantly predicted depression, $F(1, 194) = 36.99, p < .001$, with higher levels of insomnia relating to higher levels of depression, $\beta = 0.40, p < .001$, further indicating a bidirectional relationship between these variables.

Mediation Analyses

Anxiety. To test hypothesis four, a mediation analysis following Baron and Kenny's (1986) steps was conducted to establish if the relationship between anxiety and insomnia was mediated by dysfunctional sleep beliefs. A standard multiple regression predicting dysfunctional sleep beliefs from anxiety was conducted to test pathway *a*. Results indicated the model was significant, $F(1, 194) = 29.69, p < .001$, whereby anxiety significantly accounted for 13.3% of the variance in dysfunctional sleep beliefs, $R^2_{change} = .13, p < .001$. Thus, anxiety was a significant positive predictor of dysfunctional sleep beliefs, whereby higher levels of anxiety

were related to higher levels of dysfunctional sleep beliefs, $\beta = .37, p < .001$.

To examine pathways c , b , and, c' , a hierarchical multiple regression analysis was conducted. Anxiety was entered at Step 1 and dysfunctional sleep beliefs was entered at Step 2 of the regression model. Results revealed at Step 1, the model was significant, $F(1, 194) = 44.01, p < .001$, whereby anxiety significantly accounted for 18.6% of the variance in insomnia, $R^2_{change} = .19, p < .001$. Therefore, higher levels of anxiety were related to higher levels of insomnia severity, $\beta = .43, p < .001$. At Step 2, the model remained significant, $F(2, 194) = 32.66, p < .001$, whereby dysfunctional sleep beliefs significantly accounted for 6.8% of the variance in insomnia, $R^2_{change} = .07, F_{change}(1, 192) = 17.53, p < .001$. Higher levels of dysfunctional sleep beliefs were related to higher levels of insomnia, $\beta = .28, p < .001$. Although the introduction of dysfunctional sleep beliefs decreased the contribution of anxiety in the prediction of insomnia, the β coefficient remained significant, indicative of partial mediation. A Sobel Test (Sobel, 1982) indicated the decrease in the β coefficient was statistically significant, $z = 5.41, p < .001$, further supporting partial mediation occurred. Figure 1 displays the direct and mediated pathways of the aforementioned model.

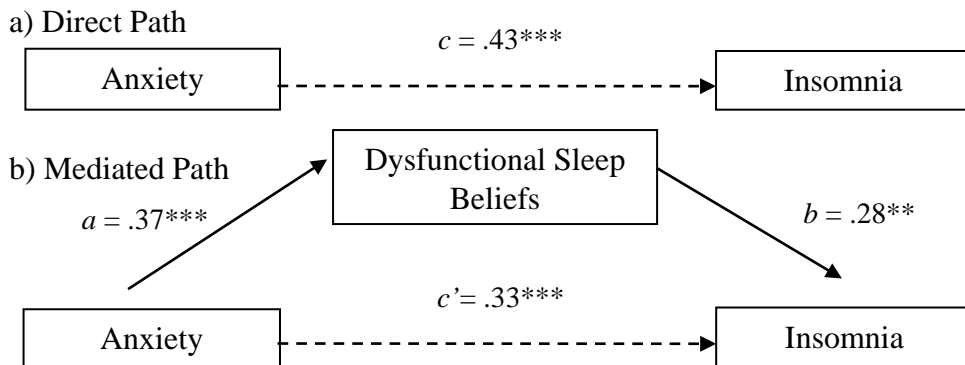


Figure 1. Direct and indirect pathways between anxiety, dysfunctional sleep beliefs, and insomnia. Note: $^{***}p < .001$.

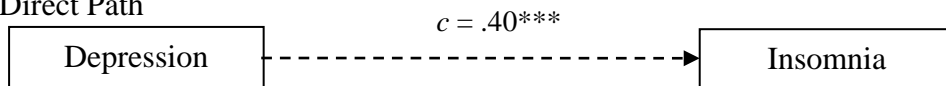
Depression

To test hypothesis five, a mediation analysis following Baron and Kenny's (1986) steps was conducted to establish if the relationship between depression and insomnia was mediated by dysfunctional sleep beliefs. A standard multiple regression analysis predicting dysfunctional sleep beliefs from depression was conducted to test pathway a . Results indicated the model was significant, $F(1, 194) = 28.70, p < .001$, whereby depression significantly accounted for 12.9% of the variance in dysfunctional sleep beliefs, $R^2_{change} = .13, p < .001$. Thus, depression was a significant positive

predictor of dysfunctional sleep beliefs, whereby higher levels of depression were related to higher levels of dysfunctional sleep beliefs, $\beta = .36, p < .001$.

To examine pathways c , b , and, c' , a hierarchical multiple regression analysis was conducted. Depression was entered at Step 1, and dysfunctional sleep beliefs at Step 2. Results revealed at Step 1, the model was significant, $F(1, 194) = 36.99, p < .001$, whereby depression significantly accounted for 16.1% of the variance in insomnia, $R^2_{change} = .16, p < .001$. Therefore, higher levels of depression were related to higher levels of insomnia severity, $\beta = .40, p < .001$. At Step 2, the model remained significant, $F(2, 194) = 29.68, p < .001$, whereby dysfunctional sleep beliefs significantly accounted for 7.5% of the variance in insomnia, $R^2_{change} = .08, F_{change}(1, 192) = 18.93, p < .001$. Therefore, higher levels of dysfunctional sleep beliefs were related to higher levels of insomnia, $\beta = .29, p < .001$. Although the introduction of dysfunctional sleep beliefs decreased the contribution of anxiety in the prediction of insomnia the β coefficient remained significant, indicative of partial mediation. A Sobel Test (Sobel, 1982) indicated the decrease in the β coefficient was statistically significant, $z = 3.32, p < .001$, further supporting the occurrence of partial mediation. Figure 2 displays the direct and mediated pathways of the aforementioned model.

a) Direct Path



b) Mediated Path

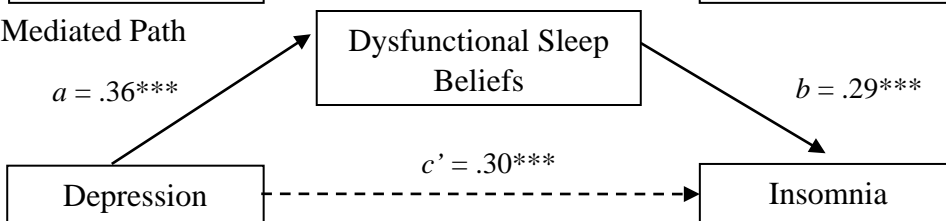


Figure 2. Direct and indirect pathways between depression, dysfunctional sleep beliefs, and insomnia. Note: *** $p < .001$.

Perceived Stress

To test hypothesis six, a mediation analysis following Baron and Kenny's (1986) steps was conducted to determine if the relationship between perceived stress and insomnia could be mediated by dysfunctional sleep beliefs. A standard multiple regression analysis predicting dysfunctional sleep beliefs from perceived stress and gender was conducted to test pathway a . Gender was entered with perceived stress at Step 1 of the regression to control for its effects. Results indicated the model was significant, $F(2, 194) = 17.06, p < .001$, whereby gender and perceived stress together accounted for 15.1% of the variance in dysfunctional sleep beliefs, $R^2_{change} = .15, p < .001$.

Thus, perceived stress was a significant positive predictor of dysfunctional sleep beliefs such that higher levels of perceived stress were related to higher levels of dysfunctional sleep beliefs, $\beta = .38, p < .001$.

To examine pathways c , b , and, c' , a hierarchical multiple regression analysis was conducted. Both gender and perceived stress were entered at Step 1, and dysfunctional sleep beliefs was entered at Step 2. Results revealed at Step 1 the model was significant, $F(2, 194) = 22.34, p < .001$, whereby gender and perceived stress conjointly contributed 18.9% of the variance in insomnia $R^2_{change} = .19, p < .001$. Therefore, higher levels of perceived stress were related to higher levels of insomnia severity, $\beta = .43, p < .001$. At Step 2 the model remained significant, $F(3, 194) = 21.45, p < .001$, whereby dysfunctional sleep beliefs significantly accounted for 6.3% of the variance in insomnia, $R^2_{change} = .06, F_{change}(1, 191) = 16.16, p < .001$. Therefore, higher levels of dysfunctional sleep beliefs were related to higher levels of insomnia, $\beta = .27, p < .001$. Although the introduction of dysfunctional sleep beliefs decreased the contribution of perceived stress in the prediction of insomnia, the β coefficient remained significant, indicative of partial mediation. A Sobel Test (Sobel, 1982) revealed the decrease in the β coefficient was statistically significant, $z = 3.22, p < .001$, further supporting partial mediation occurred. Figure 3 displays the direct and mediated pathways of the aforementioned model.

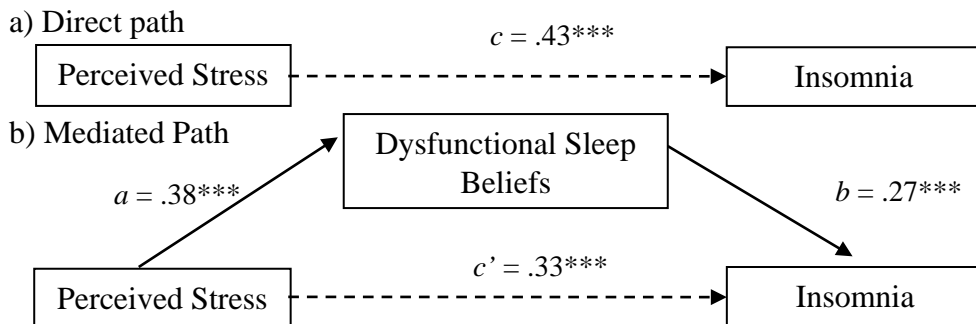


Figure 3. Direct and indirect pathways between perceived stress, dysfunctional sleep beliefs, and insomnia. Note: *** $p < .001$.

Discussion and conclusion

The present study aimed to establish the prevalence of insomnia, and the prevalence of anxiety and depression in individuals with insomnia, in an Australian university student population. Additionally, the bidirectional relationship between anxiety, depression, and insomnia, and the mediating role of dysfunctional sleep beliefs in the predictive relationships between perceived stress, anxiety, depression, and insomnia among students was examined.

Support was provided for hypothesis one, as the prevalence rate of insomnia among students sampled was 16.9%, similar to previous literature stating insomnia in university students is typically higher than the general population (Jiang et al., 2015). Support was also provided for hypothesis two, as the prevalence for anxiety was higher than for depression among students, 6.2% versus 8.7% respectively. Findings are consistent with previous literature suggesting that rates of anxiety are typically higher than rates of depression among university students (Shamsuddin et al., 2013). Results also support the notion that anxiety may play a more integral role in the development of insomnia than depression (Monti & Monti, 2004), and that the most robust associations between emotional functioning and insomnia involve anxiety (Alfano et al., 2010).

The third hypothesis predicting a bidirectional relationship between depression, anxiety, and insomnia was supported, as significant intercorrelations existed between variables. Results are consistent with previous longitudinal research that established a bidirectional association between anxiety, depression, and insomnia over a year (Jansson-Fröjmark & Lindblom, 2008). The clinical implications of this finding are significant, as treatment of mood disorders may mitigate students risk of future insomnia and vice versa (Ohanyon & Roth, 2003).

The final three hypotheses were partially supported, as all results yielded partial mediations. The amount of variance accounted for by dysfunctional sleep beliefs in the predictive relationships between depression, anxiety, perceived stress and insomnia was not enough to reduce the statistical contribution of the predictor variables to non-significance. Therefore, aspects of the relationship between perceived stress, anxiety, depression, and insomnia were not accounted for by dysfunctional sleep beliefs. As such, a cognitive model utilising dysfunctional sleep beliefs cannot be considered in isolation as a mediating variable for these relationships. Biological theories of insomnia postulate that neuroendocrine dysfunction (hypothalamic-pituitary-adrenal axis abnormality) and functional decreases in serotonergic neurotransmission influence the development of stress, depression, anxiety, and insomnia (Adrien, 2002; Van Reeth et al., 2000). Therefore, the partial mediations obtained in the current study may reflect a widespread and complex relationship between focal variables.

The findings of the current study should be interpreted with consideration of some limitations. Given the correlational nature of the design, causal inferences cannot be made about the predictive and mediating factors of insomnia investigated in this research (Espie, 2002). In future research, an experimental design should be employed to enhance both the causal nature and reliability of the results. The utilisation of an objective

sleep measure (i.e., polysomnography) may also enhance the reliability of the results by decreasing error associated with retrospective accounts of sleep disturbance (Jansson-Fröjmark & Lindblom, 2008). Future studies may also benefit from utilising a prospective design to enhance the reliability of accurate responding (Ohanyon & Roth, 2003).

The current study investigated some of the potential psychological mechanisms that influence the development of insomnia. The high prevalence of insomnia, depression, and anxiety in the current sample suggest university students are a particularly susceptible population. This research demonstrates that insomnia and comorbid conditions have a bidirectional effect. In addition, dysfunctional sleep beliefs significantly mediated all three relationships between perceived stress, anxiety, depression, and insomnia. Both findings have implications for treatment courses and outcomes. Specifically, the current study provides support for incorporating belief-targeted insomnia treatment into cognitive behavioural therapy for anxiety and depressive disorders.

Given the negative ramifications of insomnia on university students, implementing evidence based education and treatment programs targeted at reducing perceived stress, depression, and anxiety, as well as decreasing negative rumination prior to sleeping, would be beneficial to students (Harvey, 2002). Furthermore, given the societal costs associated with poor academic performance often related to symptoms of insomnia, such programs may assist students in achieving their optimal academic success, while decreasing the risk of developing potential comorbid psychiatric conditions in later adulthood (Ohanyon & Roth, 2003).

References:

- Adrien, J. (2002). Neurobiological bases for the relation between sleep and depression. *Sleep Medicine Review*, 6, 341-351. doi: 10.1053/smr.v.2001.0200
- Alfano, C. A., Pina, A. A., Zerr, A. A., & Villalta, K. (2010). Pre-sleep arousal and sleep problems of anxiety-disordered youth. *Child Psychiatry Human Development*, 41, 156-167. doi:10.1007/s10578-009-0158-5
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182. doi: 10.1037/0022-3514.44.
- Bastien, C.H., Vallières, A., & Morin, C. M. (2001). Validation of the Insomnia Severity Index as an outcome measure for insomnia research. *Sleep Medicine*, 2, 297-307. doi: 10.1016/S1389-9457(00)00065-4
- Calkins, A. W., Hearon, B. A., Capozzoli, M. C., & Otto, M. W. (2013). Psychosocial predictors of sleep dysfunction: The role of anxiety

- sensitivity, dysfunctional beliefs, and neuroticism. *Behavioural Sleep Medicine*, *11*, 133-143. doi: 10.1080/15402002.2011.643968.
- Clara, I. P., Cox, B. J., & Enns, M. W. (2001). Confirmatory factor analysis of the depression-anxiety stress scales in depressed and anxious patients. *Journal of Psychopathology and Behavioural Assessment*, *23*, 61-67. doi: 10.1023/A:1011095624717
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behaviour*, *24*, 385-396. doi: 1.2307/2136404
- Espie, C. A. (2002). Insomnia: Conceptual issues in the development, persistence, and treatment of sleep disorders in adults. *Annual Review of Psychology*, *53*, 215-243. doi: 10.1146/annurev.psych.53.100901.135243
- Ford, D. E., & Kamerow, D. B. (1989). Epidemiologic study of sleep disturbances and psychiatric disorders: An opportunity for prevention? *The Journal of American Medical Association*, *262*, 1479-1484. doi: 10.1001/jama.1989.03430110069030
- Garlow, S. J., Rosenberg, J., Moore, J. D., Haas, A. P., Koeshner, B., Hendin, H., Nemeroff, C. B. (2008). Depression, desperation, and suicidal ideation in college students: Results from the American foundation for suicide prevention college screening project at Emory University. *Depression and Anxiety*, *25*, 482-488. doi:10.1080/07448481.2010.483
- Gaultney, J. F. (2010). The prevalence of sleep disorders in college students: Impact on academic performance. *Journal of American College Health*, *59*, 91-97. doi: 10.1080/07448481.2010.483708
- Harvey, A. (2002). A cognitive model of insomnia. *Behaviour Research Therapy*, *40*, 869-893. doi: 10.1016/S0005-7967(01)00061-4
- Jansson-Fröjmark, M., & Lindblom, K. (2008). A bidirectional relationship between anxiety and depression, and insomnia? A prospective study in the general population. *Journal of Psychosomatic Research*, *64*, 443-449. doi: 10.1016/j.jpsychores.2007.10.016
- Jarrin, D. C., Chen, I. Y., Ivers, H., & Morin, C. M. (2014). The role of vulnerability in stress-related insomnia, social support and coping styles on incidence and persistence of insomnia. *Journal of Sleep Research*, *23*, 681-688. doi: 10.1111/jsr.12172
- Jiang, X. L., Zheng, X. Y., Yang, Y. E., Chen, Y. Y., Zhang, Z. G., & Xiao, Z. J. (2015). A systematic review of studies on the prevalence of insomnia in university students. *Public Health*, *129*, 1579-1584. doi: 10.1016/j.puhe.2015.07.030.
- Johnson, E. O., Roth, T., & Breslau, N. (2006). The association of insomnia with anxiety disorders and depression: Exploration of the direction of risk. *Journal of Psychiatric Review*, *40*, 700-708. doi: 10.1016/j.jpsychires.2006.07.008

- Karam, F., Bérard, A., Sheehy, O., Huneau, M., Briggs, G., & Chambers, C. (2012). Reliability and validity of the 4-item perceived stress scale among pregnant women: Results from the OTIS antidepressants study. *Research in Nursing and Health*, 35, 363-375. doi: 10.1002/nur.21482
- Kelly, W., Kelly, K. E., & Clanton, R. C. (2001). The relationship between sleep length and grade point average among college students. *College Student Journal*, 35, 84-86. doi: 10.1016/j.sbspro.2011.05.090
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety inventories. *Behavioural Research Therapy*, 33, 335-342. doi: 10.1016/0005-7967(94)00075-U
- Maquet, P. (2001). The role of sleep in learning and memory. *Science*, 294, 1048 – 1052. doi: 10.1126/science.1062856
- Monti, J. M., & Monti, D. (2004). Sleep in schizophrenia patients and the effects of antipsychotic drugs. *Sleep Medicine Review*, 8, 133-148. doi: 10.1016/S1087-0792(02)00158-2
- Moo-Estrella, J., Perez-Benitez, H., Solis-Rodriguez, F., & Arankowsky-Sandoval, G. (2005). Evaluation of depressive symptoms and sleep alterations in college students. *Archives of Medical Research*, 36, 393-398. doi: 10.1016/j.arcmed.2005.03.018
- Morin, C. M. (1996). *Insomnia: Psychological assessment and management*. New York, NY: Guilford Press.
- Morin, C. M., Belleville, G., Bélanger, L., & Ivers, H. (2011). The Insomnia Severity Index: Psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep*, 34, 601-608. doi:10.3122/jabfm.2013.06.130064
- Morin, C. M., Blais, F., & Savard, J. (2002). Are changes in beliefs and attitudes about sleep related to sleep improvements in the treatment of insomnia? *Journal of Research and Therapy*, 40, 741-752. doi: 10.1016/j.jpsychores.2009.08.007
- Morin, C. M., & Epsie, C. A. (2012). *The oxford handbook of sleep and sleep disorders*. New York, NY: Oxford University Press
- Morin, C. M., LeBlanc, M., Daley, M., Gregoire, J. P., & Merette, C. (2006). Epidemiology of insomnia: Prevalence, self-help treatments, consultations, and determinants of help-seeking behaviours. *Sleep Medicine*, 6, 123-130. doi: 10.1016/j.sleep.2005.08.008
- Morin, C. M., Vallieres, A., & Ivers, H. (2007). Dysfunctional Beliefs and Attitudes about Sleep (DBAS): Validation of a brief version (DBAS-16). *Sleep*, 30, 1547-1554. doi: 10.1037/0882-7975.3.46
- Ohayon, M. & Roth, T. (2003). Place of chronic insomnia in the course of depressive and anxiety disorders. *Journal of Psychiatry Research*, 37, 9-15. doi: 10.1016/S0022-3956(02)00052-3.

- Palagini, L., Faraguna, U., Mauri, M., Gronchi, A., Morin, C., & Riemann, D. (2016). Association between stress-related sleep reactivity and cognitive processes in insomnia disorder and insomnia subgroups: Preliminary results. *Sleep Medicine, 19*, 101-107. doi: 10.1016/j.sleep.2015.10.020
- Shamsuddin, K., Fadzil, F., Ismail, W. S., Shah, S. A., Omar, K., Muhammad, N. A... Mahadevan, R. (2013). Correlates of depression, anxiety, and stress among Malaysian university students. *Asian Journal of Psychiatry, 6*, 318-323. doi: 10.1016/j.ajp.2013.01.014.
- Sinclair, S. J., Siefert, C. J., Slavin-Mulford, J. M., Stein, M. B., Renna, M., & Blais, M. A. (2012). Psychometric evaluation and normative data for the depression, anxiety, and stress scales-21 (DASS-21) in a nonclinical sample of U.S adults. *Evaluation and the health professions, 35*, 259-279. doi: 10.1177/0163278711424282
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S Leinhardt (Ed.), *Sociological Methodology 1982* (pp. 290-312). Washington DC: American Sociological Association.
- Theadom, A., & Cropley, M. (2008). Dysfunctional beliefs, stress and sleep disturbance in fibromyalgia. *Sleep Medicine, 9*, 376-381. doi:10.1016/j.sleep.2007.06.005
- Van Egeren, L., Haynes, T. W., Franzen, M., & Hamilton, J. (1983). Presleep cognitions and attributions in sleep-onset insomnia. *Journal of Behavioural Medicine, 6*, 217-232. doi:10.1007/BF00845382
- Van Reeth, Weibel, Spiegel, Leproult, Dugovic, & Maccari. (2000). Physiology of sleep (review), interactions between stress and sleep: From basic research to clinical situations. *Sleep Medicine Reviews, 4*, 201-219. doi:10.1053/smr.1999.0097
- Wolfson, A. R., & Armitage, R. (2009). Sleep and its relationship to adolescent depression. In S. Nolen-Hoeksema & L. M. Hilt (Eds.), *Handbook of depression in adolescents*. New York, NY: Routledge.
- Wright, K. M., Britt, T. W., Bliese, P. D., Adler, A. B., Picchioni, D., & Moore, D. (2011). Insomnia as predictor versus outcome of PTSD and depression among Iraq combat veterans. *Journal of Clinical Psychology, 67*, 1240-1258. doi: 10.1002/jclp.20845

Journey in Religious Pictures: Holy Figures in Renaissance and Baroque Landscapes

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Abstract

Artists have portrayed the beauty and glory of nature since Antiquity. Renaissance and Baroque painters depicted religious episodes in impressive landscapes. The aim of this paper is to examine the sceneries which picturise the journey of a biblical figure or a saint.

There are many stories in the bible which involve voyage either on the earth or from the earth towards the heaven. Noah built an ark for himself, his family and the animals and they rode safely in the flood. Abraham sent Hagar and their son Ishmael into the wilderness of Beersheba. Lot, his wife and two daughters left the wicked city of Sodom. Jacob dreamed a ladder set up on the earth toward reached the heaven. The Book of Exodus tells the journeys of Moses. He was put in a basket and left in Nile when he was a baby and later in his adult life he passed through the Red Sea with the children of Israel.

Gospels describe several journeys. Three wise men made a trip to see the newborn Jesus. An angel appeared to Joseph and warned him to flee into Egypt with the Infant Jesus. Jesus walked on the Sea of Galilee, when his disciples were waiting on the boat. Jesus was led away to be crucified in the pictures called *The Road to Calvary*. Jesus walked with two of his disciples on the road to the village of Emmaus. *The Ascension of Jesus* is his departure from earth into the presence of God. Mary's soul leaves her body in the scenes called *Assumption of Mary*. Saint Christopher is painted wading through the water with the Infant Christ on his soulders.

Keywords: Journey, Religious Painting, Landscape, Renaissance, Baroque

Introduction

Landscape painting marks the stages in people's perception of natural world. Its rise and development since the middle ages is part of a cycle in which the human spirit attempted to create a harmony with its environment (Clark, 1976, 1).

The western landscape painting has had a short and fitful story. In the greatest ages of European art, the age of the Parthenon and the age of Chartres Cathedral, landscape did not and could not exist; to Giotto and Michelangelo it was an impertinence. It is only in the 17th century that great artists take up landscape painting for its own sake. They tried to systemise the rules. Only in the 19th century does it become the dominant art and create a new aesthetic of its own. In course of this development the concept of landscape changes from things to impressions. Man first shows his consciousness of nature when his art is still symbolic. Flowers, leaves, individual trees are all things which can be thought of in isolation. The fusion of these elements into a total impression is achieved through the perception of light (Clark, 1976, 229).

Certain events in the bible have subjects that depend on a landscape setting. Since medieval times episodes such as *Adam and Eve in the Garden of Eden*, the *Baptism of Christ* in the waters of the Jordan or the *Rest on the Flight into Egypt* have been depicted in religious paintings in settings that evoke the beauties of nature. The natural world may also be seen as God's creation, suggesting his presence in less obvious ways. In Protestant lands, especially during the 17th and 19th centuries, depictions of the observed world were often intended to denote the presence of the divine (Sturgis, 2000, 168).

The Old Testament

The Old Testament, the first section of the Christian Bible, tells various stories that include journeys of holy personages. Noah, Hagar, Ishmael, Lot, Jacob and Moses are among the biblical figures who made noteworthy trips.

The story of Noah's journey is told in the Bible's Genesis flood narrative. Observing the wickedness of mankind, God regrets creating them and decides to destroy the entire human race and all the animals. The only person he wishes to save is Noah. He orders him to build a great ark and take his wife, his sons, their wives and pairs of animals. He plans to make it rain on earth for forty days and forty nights. The waters cover the land for a hundred and fifty days. Then God, remembering Noah, causes the wind and rain to abate. Gradually the waters subside and the ark alights on the summit of Mount Ararat. (Capoa, 2003, 54-58). Even the features of the ark is specified in the narrative.³

The Italian High Renaissance painter Jacopo Bassano (1515-1592) depicted Noah's Ark and the gathering of animals several times. His mastery

³ So make yourself an ark of cypress wood; make rooms in it and coat it with pitch inside and out. This is how you are to build it: The ark is to be three hundred cubits long, fifty cubits wide and thirty cubits high (Genesis 6: 14-15).

in presenting different kinds of animals in a landscape can be seen in the painting dated 1570's (**Figure 1**).

The flood is one of those events which stress the fact that men and animals share the same world and the same fate. Bassano and his family have been underrated because they concentrated so much on animal painting. Seen in longer perspective, however, it is clear that they were among the first outstanding landscape painters (Clark, 1977, 66).



Figure 1: Jacopo Bassano, *The Animals Entering Noah's Ark*, 1570's, oil on canvas, 207 x 275 cm, Museo del Prado, Madrid.

The story of Lot and his daughters comes from the nineteenth chapter of the Book of Genesis.⁴ Lot first appears in the Bible as Abraham's nephew. When the sins of Sodom and Gomorrah "Cities of the Plain", so angered God, he decided to destroy them, Abraham asked Lot and his family to be spared. The angels who came to warn, forbade anyone to look back as they fled. Lot's wife did so and she was turned into a pillar of salt. Lot and his two daughters took refuge in the hills close to the small city of Zoar (Murray & Murray, 2013, 322).

German Renaissance artist Albrecht Dürer (1471-1528), depicted the fleeing of Lot and his family circa 1498 (**Figure 2**). This scene, painted on the reverse side of Dürer's *Madonna and Child*, was important for the moral lesson it taught. Like the story of Noah and the flood, that of Lot and the desolation of Sodom and Gomorrah was an allegory demonstrating the power of God to save the righteous. Since the combination of the story of Lot with the depiction of the Virgin and Child is extremely unusual, the exact relation of the two images remains unclear. However, they could be understood as two examples of the value of a just life (www.nga.gov).

⁴ With the coming of dawn, the angels urged Lot, saying, "Hurry! Take your wife and your two daughters who are here, or you will be swept away when the city is punished." When he hesitated, the men grasped his hand and the hands of his wife and of his two daughters and led them safely out of the city, for the Lord was merciful to them. As soon as they had brought them out, one of them said, "Flee for your lives! Don't look back, and don't stop anywhere in the plain! Flee to the mountains or you will be swept away!" (Genesis 19: 15-16).



Figure 2: Albrecht Dürer, *Lot Fleeing with his Daughters from Sodom*, c. 1498, oil and tempera on panel, 41 x 52 cm, National Gallery of Art, Washington.

Hagar, the Egyptian maidservant whom Sarah gave to Abraham as his concubine, is another traveling biblical person in the Book of Genesis. Hagar bore Ishmael who became the progenitor of Ishmaelites. When Sarah gave birth to Isaac, she felt that her son's position is threatened by Ishmael. She urged Abraham to expel Hagar and Ishmael. They were sent away to the desert with some water and bread (Achtemeier, 1996, 396). The book tells where and in what circumstances she wandered.⁵

French Baroque era painter Claude Lorrain's (1604-1682) painting entitled *The Expulsion of Hagar* is dated 1668 (**Figure 3**). Lorrain created a pair of landscapes in the same year: the *Expulsion of Hagar* and the *Landscape with Hagar and the Angel*. These are further examples of Lorrain's often repeated theme of the morning and evening scenes. The figures play a tiny part in the whole of the picture (www.wga.hu).



Figure 3: Claude Lorrain, *The Expulsion of Hagar*, 1668, oil on canvas, 107 x 140 cm, Alte Pinakothek, Munich.

⁵ Early the next morning Abraham took some food and a skin of water and gave them to Hagar. He set them on her shoulders and then sent her off with the boy. She went on her way and wandered in the Desert of Beersheba (Genesis 21: 14).

Jacob, on the road to Haran, stops one night to sleep. In his dream, he sees a flight of steps that leads from earth to heaven with two companies of angels climbing and descending. At the top of the ladder is the Lord, who speaks to Jacob.⁶ Several meanings have been attributed to the ladder. Above all, it alludes to God's favor for the entire people of Israel. The presence of angels represents contact between the human and divine spheres (Capoa, 2003, 116-117).

Italian Baroque era painter Domenico Fetti (1589-1623) depicted Jacob's dream in 1613 (**Figure 4**). Jacob is lying on the ground in a wild landscape, dreaming a ladder which opens a shining path through the lurid sky.



Figure 4: Domenico Fetti, *Jacob's Dream*, 1613, oil on wood panel, 43 x 60,5 cm, Detroit Institute of Arts, Michigan.

The Book of Exodus narrates two journeys of the Hebrew prophet and lawgiver Moses: one when he was a baby⁷, the latter in his adulthood.⁸

⁶ Jacob left Beersheba and set out for Haran. When he reached a certain place, he stopped for the night because the sun had set. Taking one of the stones there, he put it under his head and lay down to sleep. He had a dream in which he saw a stairway resting on the earth, with its top reaching to heaven, and the angels of God were ascending and descending on it. There above it^[c] stood the Lord, and he said: "I am the Lord, the God of your father Abraham and the God of Isaac. I will give you and your descendants the land on which you are lying (Genesis 28: 10-13).

⁷ Now a man of the tribe of Levi married a Levite woman, and she became pregnant and gave birth to a son. When she saw that he was a fine child, she hid him for three months. But when she could hide him no longer, she got a papyrus basket for him and coated it with tar and pitch. Then she placed the child in it and put it among the reeds along the bank of the Nile. His sister stood at a distance to see what would happen to him (Exodus 2: 1-4).

⁸ Then the Lord said to Moses, "Why are you crying out to me? Tell the Israelites to move on. Raise your staff and stretch out your hand over the sea to divide the water so that the

French Baroque era painter Nicolas Poussin (1594-1665), depicted the trip of the newborn in his painting entitled *The Exposition of Moses* (1654) (**Figure 5**). When Pharaoh ordered all new-born Hebrew sons to be killed, Moses's mother put him in an ark of bulrushes in the Nile. His sister stayed to watch while Pharaoh's daughter came to the river with her maidens and found the child. The painting is striking for its emotional intensity, with the focus on Moses's suffering parents. The joyful scene of the finding of Moses was a popular one, whereas this subject is far less common. Poussin treated it earlier in 1627. It was greatly admired by contemporaries for the artist's treatment of the subject, his skill in painting reflections and the beauty of the landscape. Pharaoh's city is based on Pirro Ligorio's reconstruction of some of the most famous buildings of ancient Rome. A sphinx accompanied by a river-god and cornucopia identifies the Nile (www.ashmolean.org).



Figure 5: Nicolas Poussin, *The Exposition of Moses*, 1654, oil on canvas, 149,5 x 204,5 cm, Ashmolean Museum, Oxford.

Pharaoh permitted the people of Israel to leave Egypt. But he did not let them go freely and he gathered together his warriors and chariots to pursue them. The people of Israel were very afraid when they saw Egyptian army on the shores of the Red Sea. Moses stretched out his hand over the sea and waters were divided. (Ferguson, 1989, 59). Italian Early Renaissance artist Cosimo Rosselli (1439-1507), created *Crossing of the Red Sea* (**Figure 6**), a majestic painting presenting the victorious Israelites and the defeated Egyptian army in 1481. The impressive sky of the vast landscape is a dramatic reflection of the great event.

Israelites can go through the sea on dry ground. I will harden the hearts of the Egyptians so that they will go in after them. And I will gain glory through Pharaoh and all his army, through his chariots and his horsemen (Exodus 14: 15-17).



Figure 6: Cosimo Rosselli, *Crossing of the Red Sea*, 1481-1482, fresco, 350 x 572 cm, Cappella Sistina, Vatican.

The New Testament

The New Testament, the second part of the Christian Bible, narrates the life of Virgin Mary and Jesus and discusses the miracles and teachings of Christ. Some of the episodes involve voyages either actual or spiritual.

The wise men described in the Gospel of Matthew⁹ as the first gentiles to believe in Christ were venerated as saints in the middle ages. They traditionally numbered three, called Casper, Balthasar and Melchior. In their rich iconography, they are sometimes depicted as one old man, one middle-aged and one youthful. They were naturally regarded as the patron of travellers before Saint Christopher became more popular (Farmer, 321-22). Pictures portraying the rich caravan of the three wise men, journeying toward Bethlehem are commonly entitled *Journey of the Magi*. When they reached to their destination, they worshiped the Infant Jesus and presented him with gifts (Ferguson, 1989, 77). Dutch Baroque era painter Leonaert Bramer (1596-1674) depicted the journey of the three magi to Bethlehem in 1638-1640 (**Figure 7**). Angels are leading the three magi with their torches in the dark landscape.

⁹ After Jesus was born in Bethlehem in Judea, during the time of King Herod, Magi from the east came to Jerusalem and asked, “Where is the one who has been born king of the Jews? We saw his star when it rose and have come to worship him (Matthew 2: 1-2). Then Herod called the Magi secretly and found out from them the exact time the star had appeared. He sent them to Bethlehem and said, “Go and search carefully for the child. As soon as you find him, report to me, so that I too may go and worship him.” After they had heard the king, they went on their way, and the star they had seen when it rose went ahead of them until it stopped over the place where the child was. ¹⁰ When they saw the star, they were overjoyed (Matthew 2: 7-10).



Figure 7: Leonaert Bramer, *Journey of the Three Magi to Bethlehem*, 1638-1640, oil on panel, 79 x 107 cm, New York Historical Society, New York

After the Magi had worshipped the Infant Jesus, an angel appeared to Joseph in a dream and told him to take Jesus and his mother and flee to Egypt and stay there until the death of King Herod (Murray and Murray, 2013, 170). The Gospel of Matthew narrates the Egyptian journey of the holy family.¹⁰ Italian Early Renaissance artist Fra Angelico (1400-1455) depicted the flight into Egypt in 1451-1452 (**Figure 8**).



Figure 8: Fra Angelico, *Flight into Egypt*, 1451-1452, tempera on wood, 37 x 38,5 cm, Museo di San Marco, Florence.

¹⁰ When they had gone, an angel of the Lord appeared to Joseph in a dream. “Get up,” he said, “take the child and his mother and escape to Egypt. Stay there until I tell you, for Herod is going to search for the child to kill him.” Herod. And so was fulfilled what the Lord had said through the prophet: “Out of Egypt I called my son” (Matthew 2: 13-15).

“Christ walking upon the water” is one of the miracles of Jesus that is narrated by the the Gospels of Matthew, Mark and John.¹¹ One evening, Christ ordered his disciples to cross over the sea of Galilee before him. A great wind arose that theratened the boat. Jesus went unto them, walking on the sea. (Ferguson, 1989, 84). Flemish Baroque era painter Paul Bril (1554-1626) created a stormy seascape in *Jesus Walking on the Sea of Galilee* (1590’s) (**Figure 9**).



Figure 9: Paul Bril, *Jesus Walking on the Sea of Galilee*, 1590’s, 73,5 x 101 cm, Museum of John Paul II Collection, Warsaw.

The Evangelists Matthew, Mark and Luke relate as Christ was led away to be crucified, a man called Simon from Cyrene carried his cross. It is the only evangelist John¹² who says that Christ was compelled to bear his own cross (Ferguson, 1989, 87).

German court painter Christoph Schwarz (1545-1592) in his painting *Christ on the Way to Calvary* dated 1580 (**Figure 10**) depicted a crowded scene with the people and soldiers following Jesus on the way to Golgotha. He even added Saint Veronica who wiped the face of Christ with compassion and had the image of his face on her veil.

¹¹ After he had dismissed them, he went up on a mountainside by himself to pray. Later that night, he was there alone, and the boat was already a considerable distance from land, buffeted by the waves because the wind was against it. Shortly before dawn Jesus went out to them, walking on the lake. When the disciples saw him walking on the lake, they were terrified. “It’s a ghost,” they said, and cried out in fear. But Jesus immediately said to them: “Take courage! It is I. Don’t be afraid.” (Matthew 14: 23-27).

¹² Carrying his own cross, he went out to the place of the Skull (which in Aramaic is called Golgotha) (John 19: 17).



Figure 10: Christoph Schwarz, *Christ on the Way to Calvary*, c. 1580, oil on copper, 24,4 x 36,8 cm, Private Collection.

One of the occasions on which Christ appeared to the disciples after his Resurrection is a prologue to a much more frequently depicted scene *Supper at Emmaus*. Luke, alone, describes how two disciples, on their way home from Jerusalem to the neighbouring village of Emmaus met Christ and walked with him.¹³ Christ is dressed as a pilgrim with a wallet and staff (Hall, 1974, 178).

Flemish Baroque era painter Jan Wildens (1586-1653) depicted a tranquil and beautiful landscape with a road in the center of the picture leading to Emmaus in *Christ on the Road to Emmaus* dated 1640's (**Figure 11**). The figure of Christ who is dressed like the two disciples can be recognised by his halo.



Figure 11: Jan Wildens, *Christ on the Road to Emmaus*, 1640's, oil on canvas, 123 x 168 cm, The State Hermitage Museum, St. Petersburg.

The Ascension of Christ is the last appearance of Christ on earth after his Resurrection and his departure to Heaven. This dramatic event central to

¹³ Now that same day two of them were going to a village called Emmaus, about seven miles^[a] from Jerusalem. They were talking with each other about everything that had happened. As they talked and discussed these things with each other, Jesus himself came up and walked along with them; but they were kept from recognizing him (Luke 24: 13-16).

whole Gospel story is terated differently by the four Evangelists. Matthew and John do not mention it and Mark says merely. Only Luke¹⁴ gives a full account divided between the last chapter of his Gospel and the first chapter of the Acts (Murray and Murray, 2013, 34).

Italian Early Renaissance painter Pietro Perugino (1445-1523) created *Ascension of Christ* (**Figure 12**) at the request of the Benedictine monks of the city of Perugia in 1495. The twelve apostles and Saint Paul stand at each side of the Virgin Mary. Above them, Christ can be seen inside a mandorla. Between heaven and earth, angels play music or pray to God (www.mba-lyon.fr).



Figure 12: Pietro Perugino, *Ascension of Christ*, 1495-1498, 265 x 325 cm, Musée des Beaux-Arts de Lyon, Lyon.

The term assumption comes from the Latin “adsumere” meaning to take up. The belief that the body and soul of Virgin Mary were taken up to heaven after her death is first found in late fourth century apocryphal writings (Ross, 1996, 26). The scene of the assumption is set in the Valley of Josaphat, the cemetery where the apostles took Mary’s body and placed it in a tomb. At the moment of assumption, Jesus appears with a group of angels. The archangel Michael uncovered the tomb, Mary’s soul was united with her body and the angels carried her up to heaven (Zuffi, 2003, 366). Flemish Baroque era painter Peter Paul Rubens (1577-1640), created a lively and eloquent scene in *The Assumption of the Virgin Mary* dated 1616-18 (**Figure 13**).

¹⁴ When he had led them out to the vicinity of Bethany, he lifted up his hands and blessed them. While he was blessing them, he left them and was taken up into heaven. Then they worshiped him and returned to Jerusalem with great joy. And they stayed continually at the temple, praising God (Luke 24: 50-53).
After he said this, he was taken up before their very eyes, and a cloud hid him from their sight (Acts 1: 9).



Figure 13: Peter Paul Rubens, *The Assumption of the Virgin Mary*, 1616-18, oil on oak, 168 x 284 cm, Museum Kunstpalast, Düsseldorf.

Saints

Saints have been regarded as protectors of certain countries, cities, arts and professions. Saints Bridget, Christopher, Michael, Julian and Roch are seen as patrons of travellers (Giorgi, 2003, 381). Saint Christopher is the most popular and frequently depicted saint related to journeys.

Saint Christopher was originally named Reprobus, a huge man from Canaan in third century who wished to serve the most powerful being on earth. He served a king for a long time. Then he met a hermit who speak to him of the power of Christ. The holy man advised him to stay near a river and ferry poor travellers across, since serving the humble was a way of serving Christ. One day, a child asked to be ferried across. During the trip, the child became very heavy; Reprobus thought he was carrying the weight of the entire world. The child then revealed himself to be Christ. He converted to Christianity and his name changed into Christopher, meaning Christ-bearer (Giorgi, 2003, 89).

Flemish Northern Renaissance artist Joachim Patinir (1485-1524), depicted *Saint Christopher* in 1515 (**Figure 14**). Described by Albrecht Dürer at the outset of the Renaissance as “the good painter of landscapes”, Patinir was considered the first modern painter to specialise in this genre. Among the reasons for the spectacular rise of this genre the geographical context was important. Antwerp was the leading art market of Europe and in contrast to other major cities in Europe, the range of works produced there was enormous and was controlled by the artists themselves rather than by the Church (www.museodelprado.es).



Figure 14: Joachim Patinir, *Saint Christopher*, 1515, oil on panel, 125 x 170 cm, El Escorial, Madrid.

Conclusion

There are numerous Biblical episodes that include journey either actual or spiritual. The voyages of Noah, Lot and Moses are survival. These holy personages had to leave their home and go to a distant land to protect themselves and their families or the whole nation. Jacob dreamed a ladder that goes into heaven and enabled the up and down trip of angels. Virgin Mary and Jesus made spiritual journeys towards heaven in the eyes of their beloved ones. All these holy trips narrated in the Old and New Testament inspired Renaissance and Baroque landscape painters. Artists depicted figures walking, riding or ascending in majestic views of the natural world.

Greek and Roman mythologies which had been another great source of subjects for the European artists of 15th, 16th and 17th centuries, embrace journeys of divine characters. Helios, the god of sun, crosses the sky in a golden chariot drawn by four horses. His sister Eos, the goddess of dawn, drives across the sky in a chariot pulled by two fine horses. Jason, the legendary Greek hero and leader of the Argonauts, made a tiresome voyage to acquire the Golden Fleece. Odysseus, the Greek hero and king of Ithaca, made the most popular journey in mythology. The *Odyssey*, Homer's great epic poem, focuses on the ten year trip home of Odysseus after the fall of Troy. These narratives have also inspired pleasing and exciting seascapes, landscapes and skiescapes.

References:

- Achtemeier, Paul J. (1996). *Bible Dictionary*. New York: Harper Collins.
- Clark, Kenneth (1976). *Landscape into Art*. New York: Harper & Row Publishers.
- Clark, Kenneth (1977). *Animals and Men: Their Relationship as Reflected in Western Art from Prehistory to the Present Day*. New York: William Morrow and Company.

- De Capoa, Chiara. (2003). *Old Testament Figures in Art*. T. M. Hartmann (trans). Los Angeles: Getty Publications.
- Farmer, David Hugh. (1997). *The Oxford Dictionary of Saints*. Oxford: Oxford University Press.
- Ferguson, George. (1989). *Signs & Symbols in Christian Art*. Oxford: Oxford University Press.
- Giorgi, Rosa. (2003). *Saints in Art*. T. M. Hartmann (trans). Los Angeles: Getty Publications.
- Hall, James. (1974). *Dictionary of Subjects and Symbols in Art*. New York: Harper & Row Publishers.
- Murray, Linda & Murray, Peter. (2013). *The Oxford Dictionary of Christian Art and Architecture*. Oxford: Oxford University Press.
- Ross, Leslie. (1996). *Medieval Art: A Topical Dictionary*. London: Greenwood Press.
- Sturgis, Alexander (Ed). (2000). *Understanding Paintings: Themes in Art Explored and Explained*. London: Octopus Publishing Group.
- Zuffi, Stefano. (2003). *Gospel Figures in Art*, T. M. Hartmann (trans). Los Angeles: Getty Publications.
- Ashmolean Museum, Oxford
<http://www.ashmolean.org/ash/objects/makedetail.php?pmu=730&mu=732>y=qsea&sec=&dt=15&sfn=Artist%20Sort,Title&cpa=1&rpos=0&key=W A1950.169> (14 February 2017)
- Musée des Beaux-Arts de Lyon, Lyon
<http://www.mba-lyon.fr/mba/sections/languages/english/collections/masterpieces/pieces1476/the-ascension-of-chr/> (1 March 2017)
- Museo del Prado, Madrid
<https://www.museodelprado.es/en/whats-on/exhibition/patinir/31df7ca7-ae93-46e8-a382-b2d0add3b7cf> (1 March 2017)
- National Museum of Art, Washington
<http://www.nga.gov/content/ngaweb/Collection/art-object-page.41599.html> (16 February 2017)
- Web Gallery of Art
<http://www.wga.hu/index1.html> (20 February 2017)

An Integrated Approach Based on Fuzzy Ahp and Grey Relational Analysis for Heating Source Selection

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Abstract

Decision making has always been difficult for enterprises in an extremely competitive environment. It is one of the toughest decisions to select heating source source. It is difficult to take into consideration factors such as quality of energy source, pollution degree of environment, attainability, sustainability. Due to this hardship, Multi criteria decision making method is beneficial for solving such kind of problems. Grey relational analysis and fuzzy AHP are efficient methods of multiple criteria decision making. In this paper, the best heating source source selection has been carried out by fuzzy AHP integrated grey relational analysis. In the phase of determining criteria weights is used by fuzzy AHP, while determining ranking of alternatives, grey relational analysis is used. The criteria used in this study are ecofriendly level, cost, attainability, calorific value and process ability. The alternatives used in this study are coal, natural gas, diesel and electricity. Out comes show that Grey Relational Analysis can be used successfully in the process of solving heating source selection problems

Keywords: Fuzzy AHP, Grey Relational Analysis, Heating Source

Introduction

Heating source takes the lead both in domestic and international domains as a strategic agenda item. Heating source firms have reached the most valuable and turnover. It is one of the most important priorities to supply nonstop, reliable and cheap heating sources in globalizing world. It has become one of the most important decisions for firms operating in foreign-dependent countries in terms of underground sources to select the most proper source in the production process. Managers should take into consideration many criteria such as the cost of heating source, availability, quality and pollution degree of heating source while deciding which alternative is better than any other.

Decision making has become of utmost importance for firms in an extremely competitive environment. The solutions of decision-making problems have been seek for scientific ways not for intuitive ways as a result of development in science and technology. Decision-making is very tough when demanded aim is determined by many parameters and there are unique advantages for each alternative. Within this framework, there are many methods to overcome these hurdles (Kaya et al. 2008: 8).

Decision-making involves criteria and alternatives to choose. The criteria usually have different importance and the alternatives in turn differ in our preference for them on each criterion. To make such tradeoffs and choices we need a way to measure. Measuring needs a good understanding of methods of measurement and different scales of measurement (Saaty, 2004: 1). Decision analysis can be depicted as a way to propose mathematical, statistical and numerical methods to solve problems faced by the enterprises. Decision analysis techniques can be applied to many fields in enterprises such as human source management, operation management, financial management, material purchase (Organ, 2013: 252).

Multiple criteria decision-making is one of the most widely-used branch of decision analysis. At the same time, multiple criteria decision-making contains methods to help evaluate many criteria, classify and ranking of alternatives. Multiple criteria decision-making is divided into two as multi objective and multi attribute decision-making. Within this division, AHP, ELECTRE, PROMETHEE, TOPSIS, COPRAS and grey relational analysis can be set as example to multi attribute decision-making (Atıcı and Ulucan, 2009:164).

The choice of heating source is very critical for business. There are lots of criteria and alternatives when deciding to use a heating source for enterprises. That's why managers go through a rough period while deciding which alternative is more preferable. This study aims to solve this difficult decision by fuzzy AHP integrated grey relational analysis out of multiple criteria decision-making methods.

Methodology

AHP and Fuzzy AHP

Analytic hierarchy process (AHP) is a decision-making model that aids in making decisions in our complex world. It is a three part process which includes identifying and organizing decision objectives, criteria, constraints and alternatives into a hierarchy; evaluating pairwise comparisons between the relevant elements at each level of the hierarchy; and the synthesis using the solution algorithm of the results of the pairwise comparisons over all the levels. Further the algorithm result gives the relative importance of alternative courses of action (Saaty, 1988: 110).

Analytic hierarchy process (AHP) has been widely used as a useful multiple criteria decision-making (MCDM) tool or a weight estimation technique in many areas such as selection, evaluation, planning and development, decision-making, forecasting, and so on. The traditional AHP requires crisp judgments. However, due to the complexity and uncertainty involved in real world decision problems, a decision maker (DM) may sometimes feel more confident to provide fuzzy judgments than crisp comparisons (Wang et al., 2008: 735).

There has been serious criticism about AHP method although it is a common method. Firstly AHP method doesn't pay attention to available ambiguity with regard to decision and criteria. This influences the result substantially. There may be some changes in the ranking of alternatives when a worse alternative is added up to problem in AHP method. This case reveals that the results obtained by AHP method don't guarantee true result every time. Triangular fuzzy numbers are used to fuzzify piecewise comparison matrix in fuzzy AHP. Triangular fuzzy numbers are used to determine the judgments of decision makers. After obtaining fuzzy performance, the aim is to get ultimate results (Organ and Kenger, 2012: 122).

Fuzzy AHP method can be considered as an advanced analytical technique introduced by Saaty's AHP method to model unconstructed problems in various fields. Traditional AHP methods evaluate the judgments of decision maker, fuzziness, ambiguity despite its consistency with regard to handling both qualitative and quantitative criteria. Although the aim of AHP method is to reveal expert opinion traditional AHP methods still don't reflect human thought style. Since the basis of priorities in AHP is perceptual judgments of decision maker, fuzzy AHP acquires better solution. That's why many researchers are interested in fuzzy extension of AHP method, introduced by Saaty (Özdağoğlu, 2008: 17).

In our study, we applied to fuzzy AHP while determining weights. The steps of fuzzy AHP method are as follows (Hsieh et al., 2004: 576-577).

Step 1. Construct pairwise comparison matrices among all the criteria according to decision makers' opinion.

$$\tilde{\mathbf{A}} = \begin{bmatrix} 1 & \tilde{a}_{12} & \dots & \tilde{a}_{1n} \\ \tilde{a} & 1 & \dots & \tilde{a}_{2n} \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ \tilde{a}_{n1} & \tilde{a}_{n2} & \dots & 1 \end{bmatrix} = \begin{bmatrix} 1 & \tilde{a}_{12} & \dots & \tilde{a}_{1n} \\ 1/\tilde{a}_{12} & 1 & \dots & \tilde{a}_{2n} \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \\ 1/\tilde{a}_{1n} & 1/\tilde{a}_{2n} & \dots & 1 \end{bmatrix}$$

$$\tilde{a}_{ij} = \begin{cases} \tilde{1}, \tilde{3}, \tilde{5}, \tilde{7}, \tilde{9} & i \text{ criterion is relatively more important compared with } j \text{ criterion} \\ 1, & i = j \\ \tilde{1}^{-1}, \tilde{3}^{-1}, \tilde{5}^{-1}, \tilde{7}^{-1}, \tilde{9}^{-1} & i \text{ criterion is less important compared with } j \text{ criterion} \end{cases}$$

Decision maker used five scaled fuzzy comparison table while evaluating criteria. As it can be seen in Table 1.

Table 1: The Linguistic Assessment Variables and its Corresponding Scale in Terms of Triangular Fuzzy Numbers

Linguistic Variable	Triangular Fuzzy Scale	Triangular Fuzzy Reciprocal Scale
Equal	(1,1,1)	(1/1, 1/1, 1/1)
Moderate	(2,3,4)	(1/4, 1/3, 1/2)
Strong	(4,5,6)	(1/6, 1/5, 1/4)
Very Strong	(6,7,8)	(1/8, 1/7, 1/6)
Extremely Preferred	(8,9,9)	(1/9, 1/9, 1/8)

Step 2. Fuzzy geometric mean and fuzzy weights of each criterion are calculated using Equation (1) and (2).

$$\tilde{r}_i = (\tilde{a}_{i1} \otimes \dots \otimes \tilde{a}_{ij} \otimes \dots \otimes \tilde{a}_{in})^{\frac{1}{n}} \tag{1}$$

$$\tilde{w}_i = \tilde{r}_i \otimes [\tilde{r}_1 \oplus \dots \oplus \tilde{r}_i \oplus \dots \oplus \tilde{r}_n]^{-1} \tag{2}$$

Step 3. In the last step, Center of Area (COA) method is used to calculate Best Nonfuzzy Performance value (BNP).

$$BNP_{wi} = \frac{(U_{wi} - L_{wi}) \oplus (M_{wi} - L_{wi})}{3} \oplus L_i ; i=1,2,\dots,n \tag{3}$$

L_{wi} , M_{wi} , U_{wi} values are triangular fuzzy numbers and respectively represent the lower, middle and upper values.

Grey Relational Analysis

Grey system theory was used by Deng (1982). The grey system is defined as a system of partial definition. The grey system theory is applied to solve partial information problems such as decision-making, weather prediction and military affairs (Liang et al, 2014: 9).

The fundamental definition of “greyness” is information being incomplete or unknown, thus an element from an incomplete message is

considered to be of grey element. Grey relation means the measurements of changing relations between two systems or between two elements that occur in a system over time. The analysis method, which measures the relation among elements based on the degree of similarity or difference of development trends among these elements, is called “grey relation analysis” (Feng and Wang, 2000:136).

In grey relational analysis, black means that we have no information on the other hand white means that we have information. A grey system has a level of information between black and white (Sreenivasulu and Rao, 2012: 71). Some information is known and some information is unknown. GRA is used to convert multi-response optimization into a single response grey relational analysis (Jegan et al, 2012: 4008).

Grey relational analysis has become more and more important recently. There are lots of studies about this method recently. Some of these studies are as follows:

Peker and Baki (2011), applied this method to performance measurement of insurance sector. Özdemir and Deste (2009), applied it to automotive sector. Ecer (2013), evaluated performance of private banks in Turkey. Chan and Tong (2006) used this method for material selection, Lu and Wevers (2007) used this method to evaluate road traffic safety. Erden and Ceviz (2015), utilized this method for growth ratios evaluation.

The phases of GRA are as follows (Mehregan et al, 2012: 404-405, Zhai et al, 2009: 7072-7079, Ecer, 2013:176-177) :

Step 1. Construction of Decision Matrix

As in all multi-criteria decision-making problems, firstly decision matrix is constructed.

Step 2. Normalization of Decision Matrix

If the target value of original sequence is expected to be maximum, then the original sequence is normalized as follows:

$$x_i^* = \frac{x_i(j) - \min_j x_i(j)}{\max_j x_i(j) - \min_j x_i(j)} \quad (4)$$

If the expectancy is that smaller values are better, the original sequence should be normalized as follows:

$$x_i^* = \frac{\max_j x_i(j) - x_i(j)}{\max_j x_i(j) - \min_j x_i(j)} \quad (5)$$

Step 3. Construction of Absolute Value Table

The absolute value between x_0^* and x_i^* is calculated as follows:

$$\Delta_{0i} = \begin{cases} |x_0^*(j) - x_i^*(j)| & i=1,2,\dots,m \\ & j=1,2,\dots,m \end{cases} \quad (6)$$

Step 4. Calculation of Grey Relational Coefficient

Grey relational coefficient is calculated to express the relationship between the ideal and actual normalized results and can be calculated as follows:

$$\gamma_{0i}(j) = \frac{\Delta_{\min} + \xi\Delta_{\max}}{\Delta_{0i}(j) + \xi\Delta_{\max}} \quad (7)$$

$$\Delta_{\max} = \max_i \max_j \Delta_{0i}(j) \quad (8)$$

$$\Delta_{\min} = \min_i \min_j \Delta_{0i}(j) \quad (9)$$

ξ is distinguishing or identification coefficient. ξ is generally used as 0.5.

Step 5. Calculation of Grey Relational Grade

After getting grey relational coefficient, we take the average of grey relational coefficient as the grey relational grade if all the criteria have equal importance. The grey relational grade is calculated is as follows:

$$\Gamma_{0i} = \frac{1}{n} \sum_{j=1}^n \gamma_{0i}(j) \quad i=1,2,\dots,m \quad (10)$$

However in real world, there can be different weights for the criteria. In this case, the grey relational grade is calculated is as follows:

$$\Gamma_{0i} = \sum_{j=1}^n [w_j(j) \cdot \gamma_{0i}(j)] \quad (11)$$

where w_j represents the normalized value of attribute j . Therefore, if a comparability sequence for an alternative gets the highest grey relational grade with the reference sequence, it means that a particular comparability sequence is more important than the other comparability sequences to the reference sequence it is the best alternative to be chosen (Mehregan et al, 2012: 404-405).

Application

An Integrated Approach Based On Fuzzy AHP And Grey Relational Analysis For Heating Source Selection

The aim of this study is to determine the most suitable heating source for a textile firm. As a heating source, this textile company has 4 different alternatives. These include Coal, Natural Gas, Diesel, and electricity. The criteria to be taken into account when choosing these alternatives are Cost, Attainability, Ecofriendly, Calorific Value and Processability. In this study, the best heating source selection for an enterprise is carried out with AHP integrated Grey Relational Analysis. The linguistic variables used to evaluate alternatives are given in Table 2.

Table 2. The Linguistic Variables Used to Evaluate Alternatives

Linguistic Variables	Reciprocal Scale
Very Weak	1
Weak	3
Fair	5
Good	7
Very Good	9
Interval Values	2,4,6,8

Data set prepared according to expert opinion is given in Table 3.

Table 3. Data Set Prepared According to Expert Opinion

	MAX	MIN	MAX	MAX	MAX
	Eco friendly level	Cost	Attainability	Calorific Value	Processability
Coal	1	9	9	7	5
Natural gas	7	8	8	5	7
Diesel	3	3	6	6	6
Electricity	9	7	7	3	3

Normalization is carried out by Equations (4) and (5). Normalized decision matrix is given in Table 4.

Table 4. Normalized Decision Matrix

	Eco friendly level	Cost	Attainability	Calorific Value	Processability
Coal	0	0	1	1	0,5
Natural gas	0,75	0,16667	0,6667	0,5	1
Diesel	0,25	1	0	0,75	0,75
Electricity	1	0,3333	0,3333	0	0

After normalization, absolute value table is constructed by Equation (6). Absolute value table is given in Table 5.

Table 5. Absolute Value Table

	Eco-friendly level	Cost	Attainability	Calorific Value	Processability
Coal	1	1	0	0	0,5
Natural gas	0,25	0,8333	0,3333	0,5	0
Diesel	0,75	0	1	0,25	0,25
Electricity	0	0,6667	0,6667	1	1

Then Δ_{max} and Δ_{min} are obtained as 1 and 0 respectively. ζ is regarded as 0.5 as generally used. Grey relational coefficient is calculated by Equation (7). Grey relational coefficient for each alternative is given in Table 6.

Table 6. Grey Relational Coefficient

	Eco friendly level	Cost	Attainability	Calorific Value	Processability
Coal	0,3333	0,33333	1	1	0,5
Natural gas	0,6667	0,375	0,6	0,5	1
Diesel	0,4	1	0,33333	0,6667	0,666667
Electricity	1	0,4285	0,4285	0,333333	0,33333

In the next step grey relational grade is calculated by using weights obtained by fuzzy AHP.(The weights used at this stage have also been used in (Organ and Yalçın 2016:51-61)¹.

Therefore weighting steps of fuzzy AHP are given as follows:

The fuzzy pairwise comparison matrix we get after expert evaluation is given in Table 7.

	Ecofriendly level	Cost	Attainability	Calorific Value	Processability
Ecofriendly level	1,00 1,00	0,11 0,11	0,125 0,142	0,16 0,20	0,125 0,142
Cost	1,00	0,125	0,166	0,25	0,166
Attainability	8,00 9,00	1,00 1,00	1,00 1,00 1,00	1,00 1,00	0,11 0,11
Calorific Value	9,00	1,00	1,00	1,00	0,12
Processability	6,00 7,00	1,00 1,00	1,00 1,00 1,00	4,00 5,00	1,00 1,000
	8,00	1,00	6,00	1,000	
	4,00 5,00	1,00 1,00	0,16 0,20 0,25	1,00 1,00	0,25 0,33
	6,00	1,00	1,00	1,00	0,50
	6,00 7,00	8,00 9,00	1,00 1,00 1,00	2,00 3,00	1,00 1,00
	8,00	9,00	4,00	1,00	

Table 7. The Fuzzy Pairwise Comparison

¹ Organ A. and Yalçın E. (2016). The Energy Source Selection By Fuzzy Moora And Fuzzy AHP Method In A Textile Firm . In Arslan H. and İçbay M. (Ed.), **Contemporary Approaches In Humanities**, (pp.51-61), Frankfurt, Peter Lang Edition.

Fuzzy weights are obtained for each criteria using Equation (1).

$$\tilde{r}_1 = (0,1940, 0,2135, 0,2437)$$

$$\tilde{r}_2 = (0,974, 0,997, 1,015)$$

$$\tilde{r}_3 = (1,888, 2,036, 2,168)$$

$$\tilde{r}_4 = (0,693, 0,801, 0,944)$$

$$\tilde{r}_5 = (2,491, 2,852, 3,103)$$

Criteria weights are calculated by using Equation (2).

$$\tilde{W}_1 = (0,0259, 0,0309, 0,0390)$$

$$\tilde{W}_2 = (0,1303, 0,1446, 0,1627)$$

$$\tilde{W}_3 = (0,2525, 0,2950, 0,3475)$$

$$\tilde{W}_4 = (0,0927, 0,1160, 0,1512)$$

$$\tilde{W}_5 = (0,3326, 0,4133, 0,4972)$$

Best non-fuzzy performance values are obtained from defuzzifying fuzzy criteria weights with Center of Area (COA) method by using Equation (3).

$$BNP_{w1} = 0,0320$$

$$BNP_{w2} = 0,1459$$

$$BNP_{w3} = 0,2984$$

$$BNP_{w4} = 0,1200$$

$$BNP_{w5} = 0,4146$$

In the next step grey relational grade is calculated by using weights obtained by fuzzy AHP. Grey relational grade is obtained by Equation (10) and grey relational grade and ranking of alternatives are given in Table 8.

Table 8. Grey Relational Grade and Ranking of Alternatives

	Eco friendly level	Cost	Attainability	Calorific Value	Processability	Γ	Ranking
Coal	0.010661	0.048632	0.2983623	0.1200168	0.2073146	0.6849862	2
Natural gas	0.021322	0.054711	0.1790174	0.0600084	0.4146292	0.7296872	1
Diesel	0.012793	0.145895	0.0994541	0.0800112	0.2764195	0.614573	3
Electricity	0.031982	0.062527	0.1278695	0.0400056	0.1382097	0.4005937	4

According to ranking of alternatives, it is obtained that natural gas is first alternative, coal is the second, diesel is the third alternative, electricity is the last alternative.

Conclusion

Grey relational analysis has become more and more popular recently. Grey relational analysis reveals better results compared with other statistical methods. It also seems more proper compared with other multiple criteria decision-making methods as it is easy to use.

According to results of the study, natural gas is the best alternative for enterprise to use. Its eco-friendly level, affordability, attainability and processability enable it to take the lead. After natural gas, coal seems to be second suitable heating source for this enterprise. When we glimpse at the features of coal, it can be preferable due to being very affordable and attainable despite its low eco-friendly level. Diesel is the third alternative the enterprise can select. Diesel doesn't seem wise for enterprise as it is costly and low eco-friendly. Electricity takes the last rank among alternatives. Despite its high eco-friendly level, it doesn't seem logical to use due to its low calorific value and processability.

References:

- Atici, K.B., and Ulucan, A. (2009). "Multi Criteria Decision Analysis Approaches In Energy Projects Evaluation Process and Turkey Applications" *Hacettepe University, Journal Of Economics And Administrative Sciences*, Vol:27, pp.161-186.
- Chan J., and Tong T. (2006) "Multi-criteria Material Selections and End-of-Life Product Strategy: Grey Relational Analysis Approach", *Materials & Design*, Vol: 28, No: 5, pp.1539-1546.
- Feng, Cheng-Min, and Wang, Rong-Tsu (2000). "Performance Evaluation For Airlines Including The Consideration Of Financial Ratios", *Journal Of Air Transport Management* 6, pp.133-142
- Ecer, F.(2013). "Türkiye'deki Özel Bankaların Finansal Performanslarının Karşılaştırılması: 2008-2011 Dönemi" *AİBÜ Sosyal Bilimler Enstitüsü Dergisi*, Vol: 13, Issue: 2, pp.171-189.
- Erden, C., and Ceviz E. (2015). "Gri Sistem Teorisi Kullanılarak Türkiye'nin Büyüme Oranı Faktörlerinin Analizi", *SAÜ Fen Bil. Dergisi*, Vol: 19, Issue: 3, pp. 361-369.
- Hsieh, T. Y., Lu, S. T., and Tzeng, G. H. (2004). "Fuzzy MCDM Approach for Planning and Design Tenders Selection in Public Office Buildings". *International Journal of Project Management*, Vol: 22 (7), pp.573-584.
- Jegan, T. C., Anand, M. D., and Ravindran, D. (2012). "Determination of Electro Discharge Machining Parameters in AISI202 Stainless Steel Using Grey Relational Analysis". *Procedia Engineering*, Vol: 38, pp. 4005-4012.

- Kaya, I., Kılınç M.S., and Çevikçan E., (2008). “Makine–Teçhizat Seçim Probleminde Bulanık Karar Verme Süreci”, *Mühendis ve Makine*, Vol: 49, Issue 579.
- Liang, X., Wang, X., Shu, G., Wei, H., Tian, H., and Wang, X. (2015). “A Review and Selection of Engine Waste Heat Recovery Technologies Using Analytic Hierarchy Process and Grey Relational Analysis”. *International Journal of Energy Research*, Vol: 39(4), pp. 453-471.
- Lu, M., and Wevers, K. (2007). “Application of Grey Relational Analysis for Evaluating Road Traffic Safety Measures: Advanced Driver Assistance Systems Against Infrastructure Redesign”, *IET Intelligent Transport Systems*, Vol: 1, No: 1, pp. 3-14.
- Mehregan, M. R., Jamporzmay, M., Hosseinzadeh, M. and Kazemi, A. (2012). “An Integrated Approach of Critical Success Factors (CSFs) and Grey Relational Analysis for Ranking KM Systems”, *Procedia-Social and Behavioral Sciences*, Vol: 41, pp. 402-409.
- Organ, A. (2013). “Çok Kriterli Karar Verme Yöntemlerinden Bulanık Promethee Yönteminin Konteynir Seçiminde Uygulanması”, *Elektronik Sosyal Bilimler Dergisi*, Vol: 45(45), pp. 252-269.
- Organ, A., and Kenger, M. D. (2012). “Bulanık Analitik Hiyerarşi Süreci ve Mortgage Banka Kredisi Seçim Problemine Uygulanması”, *Niğde Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi*, Vol:5(2), pp. 119-135.
- Organ A., and Yalçın E. (2016). The Energy Source Selection By Fuzzy Moora And Fuzzy AHP Method In A Textile Firm. In Arslan H. and İçbay M. (Ed.), *Contemporary Approaches In Humanities*, (pp.51-61), Frankfurt, Peter Lang Edition.
- Özdağoğlu, A. (2008). “Bulanık Analitik Hiyerarşi Süreci Yönteminde Duyarlılık Analizleri: Yeni Bir Alternatifin Eklenmesi-Enerji Kaynağının Seçimi Üzerinde Bir Uygulama” *İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi*, Vol:14, pp.15-34.
- Özdemir A.I., and Deste M. (2009). “Gri İlişkisel Analiz ile Çok Kriterli Tedarikçi Seçimi: Otomotiv Sektöründe bir Uygulama”, *İstanbul Üniversitesi İşletme Fakültesi Dergisi*, Vol: 38, Issue: 2, pp. 147-156.
- Peker I., and Baki B. (2011).”Gri İlişkisel Analiz Yöntemiyle Türk Sigortacılık Sektöründe Performans Ölçümü”, *International Journal of Economic and Administrative Studies*, Vol:7, pp. 1-18.
- Saaty, T. L. (1988). “What is the Analytic Hierarchy Process?”, *Mathematical Models For Decision Support*, Springer, Berlin Heidelberg, pp. 109-121.
- Saaty, T. L. (2004). “Decision-making -The Analytic Hierarchy and Network Processes (AHP/ANP)”. *Journal Of Systems Science And Systems Engineering*, Vol:13(1), pp. 1-35.

- Saaty, T.L. (2008). "Decision-Making With The Analytic Hierarchy Process", *International Journal Services Sciences*, Vol: 1, pp. 83-98.
- Sreenivasulu, R. and Rao, C. S. (2012). "Application of Grey Relational Analysis for Surface Roughness and Roundness Error in Drilling of Al 6061 Alloy", *International Journal of Lean Thinking*, Vol: 3(2), pp.67-78.
- Wang, Y. M., Luo, Y., and Hua, Z. (2008). "On the Extent Analysis Method for Fuzzy AHP and Its Applications", *European Journal of Operational Research*, Vol: 186(2), pp. 735-747.
- Zhai, Lian-Yin, Khoo, Li Pheng and Zhong, Zhao-Wei. (2009), "Design Concept Evaluation In Product Development Using Rough Sets And Grey Relation Analysis", *Expert Systems with Applications*, Volume 36, Issue 3, Part 2, April 2009, pp. 7072–7079

Is There any Difference Between the Results of the Survey Marked by the Interviewer and the Respondent?

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Abstract

Systematic errors can significantly affect the results of research. Interviewer errors and respondents (participants) errors constitute a large portion of systematic error sources. The purpose of this study is to show whether there is a difference between the results of the questionnaire marked by the respondent and the results of the questionnaire marked by the interviewer. For this purpose, the responses of 150 participants to the questionnaire were compared and analyzed. The findings of the analyze reveal that there is a difference between the results of the questionnaire marked by the interviewer and the results of the questionnaire marked by the respondent. Another result is that the reliability of the questionnaire data marked by the interviewer is lower than other group. This study is part of a research carried out with the support of The Scientific and Technological Research Council of Turkey (TUBITAK – 115K155) and the results provide preliminary information.

Keywords: Survey Mode, Self-Administered Questionnaire, Interviewer-Administered Questionnaire

Introduction

Data collection by survey method is a widely used method especially in social sciences. As with many methods, the survey method is also open to some research errors. The interviewer and the respondent errors constitute a significant part of these error sources. An important issue that leads to errors during the implementation of the survey is the mode of application of the survey. Survey mode effect can have a key role in changing the rates of

interviewer and respondent errors. In this study, it was aimed to compare the questionnaires marked by the respondent (Self-administered questionnaire - SAQ) and the questionnaires marked by the interviewer (Interviewer-administered questionnaire – IAQ).

Literature Review

Non-sampling error is caused by various reasons and interviewing method is one of these reasons (Malhotra and Birks, 2007). Interviewer and respondent errors in attitude and behavior measurement may damage the accuracy of the obtained data. Exemplary, the measurement error associated with the self-reported behavior of the responder may appear in many different ways (Catania et al., 1990: 341): a) answering a question may be rejected, b) the behaviors performed can be declared as never performed, c) the behavior can be considered to be performed but the frequency can be neglected and d) behaviors that are never performed can be declared as if they were done. These mistakes consist of a combination of response and non-response errors. However, although they are both different types of error, they are both influenced by the presence, attitude and behavior of the interviewer. For this reason, it is important to examine self-administered questionnaire and interviewer-administered questionnaire modes.

In the interviewer-administered questionnaire (IAQ), the interviewer reads the questions aloud and respondent answer questions (Gribble et al., 1999: 17). The presence or participation of the interviewer may affect the responses, the presence or participation of the interviewer may activate or suppress some of the respondent's response tendencies (Moum, 1998: 282). The presence of an interviewer, especially when personal sensitive questions are asked, can distort the response of the respondent (Knapp and Kirk, 2003: 118). Direct measurement of the effect of the interviewer is difficult, since it is not known what the repeatability will be if there is no interview (Back et al., 1955: 444). It is not possible for any two interviewers to express the question in the same way while the questions are being asked, and especially unrecognized and repeated questions. In such a case, different responders have different stimuli that are likely to produce a variation in the responses (Boyd and Westfall, 1955: 316).

On the other hand, in the self-administered questionnaire (SAQ) mode, questionnaire paper is given to people either by hand or by mail or computer-assisted systems (Bowling, 2005: 282). SAQs are limited to participants' level of education and reading ability (Catania et al., 1990: 341).

According to Presser et al. (2004), one of the consequences of increasing data collection modes is to recognize that the answers to the questionnaires can be influenced by the mode the questions are asked. For this reason analyzes should take into account different methods and the

possible effects on the measurement error should not be overlooked. Both IAQ and SAQ have superior and weaker sides in terms of errors (see table 1).

Table 1. Comparison of IAQ with SAQ according to potential biases

	IAQ (Face to face)	SAQ (paper and pencil)
More complete population coverage for sampling	High	High
Cognitive burden	Low	Great
Survey response	High	Medium – low
Item response/completion of questionnaire	High	Low
Question order effects	Low	High
Response-choice order effects	Moderate	High
Recall bias	Low	High
Social desirability bias	High	Low
‘Yes-saying’ bias	High	Low
Interviewer bias	High	-
Length of verbal response / amount of information	High	-
Willingness to disclose sensitive information	Low	High
Respondents’ preferences for mode of administration	High	Low

Source: (Bowling, 2005: 284)

The effect of the survey mode was investigated in many areas, primarily in the field of health. Aquilino (1998) has found that there is no difference between face-to-face and telephone survey results in his research with depression scale, but the results of self-administered questionnaires produce high scores according to both methods. Kraus and Augustin (2001) have found that drinking and alcohol problems in their work are reported more easily in self-administered surveys than in telephone interviews. In another health survey, Bergmann et al. (2004) concluded that self-administered questionnaires did not produce the same information as personal interviews in a few specific contexts.

On the other hand, Kaplan et al. (1997) compared the self-administered questionnaire with interviewer-administered questionnaire in terms of scale availability (The Quality of Well-Being Scale). According to the results of this study, there was no difference between the two methods. Similarly, Knapp and Kirk (2003) compared three different survey methods (pencil and paper mail, Internet research or automated touch-tone telephone response system) and found no significant difference between the results.

The tendency to answer in the direction of social desirability is also a sensitive issue to be considered in the selection of the survey method. SAQ and IAQ are compared in terms of social desirability, and there are studies showing that the tendency to respond to social desirability is higher in interviewer-administered surveys (eg, Moun, 1998; Okamoto et al., 2002).

Methodology

Measurement Instrument, Sample and Data Collection

In this study, self-administered questionnaire and interviewer-administered questionnaire modes were used. Both modes included the same questions. The research instrument items were adapted from the Satisfaction With Life Scale – SWLS (Pavot and Diener, 1993). Likert type scale was used for measurement (5-point, strongly disagree to strongly agree). Data were collected from 150 individuals aged between 18 and 50 years. Half of the respondents answered the self-administered questionnaire and the other half answered the interviewer-administered questionnaire.

Data Analysis and Results

The normality test (Kolmogorov-Smirnov) and the homogeneity test (Levene) of variances were applied for the collected data by both modes. The results of the analysis showed that the data were normally distributed and the variances were homogeneous. Then, reliability analysis was performed with the collected data by both modes. Findings related to the reliability of the questionnaires are shown in table 2.

Table 2. Comparison of reliability analysis results in terms of modes

	IAQ	SAQ
Cronbach's Alpha	0.771	0.834

When the reliability analysis results are examined, it is seen that the internal consistency coefficient of the data obtained by SAQ mode is higher than IAQ mode. Factor analysis followed the reliability analysis. As a result of factor analysis, a one-factor structure emerged in both modes. The variances explained by the factors are shown in table 3.

Table 3. Comparison of methods according to the variances explained by the factors

	IAQ	SAQ
Variances explained %	53.613	61.401

When the explained variance values are examined, it is seen that the SAQ mode has a higher value than the IAQ mode. Then t-test was performed to compare the means of the data obtained by both modes. The findings obtained from the t-test results are shown in table 4.

Table 4. Comparison of modes according to group statistics and t test results

		Group Statistics				t-test
		N	Mean	Std. Deviation	Std. Error Mean	p
Scale	SAQ	75	3,5173	,89024	,10280	0.005
	IAQ	75	3,0880	,96043	,11090	
Q1	SAQ	75	3,5600	,94783	,10945	0.191
	IAQ	75	3,3333	1,15470	,13333	

Q2	SAQ	75	3,4933	1,03157	,11912	0.110
	IAQ	75	3,2000	1,19684	,13820	
Q3	SAQ	75	3,8400	1,05318	,12161	0.040
	IAQ	75	3,4400	1,29698	,14976	
Q4	SAQ	75	3,6400	1,15828	,13375	0.004
	IAQ	75	3,0000	1,48870	,17190	
Q5	SAQ	75	3,0533	1,47862	,17074	0.016
	IAQ	75	2,4667	1,47349	,17014	

According to the results of t-test, a significant difference was found between the scale means of the data obtained from the two modes. From this result, it can be said that the respondents in the SAQ method give higher scores for the Satisfaction with Life Scale. When the means of the items were compared, a significant difference was found for three out of five items. For the three question items, the SAQ means higher than the IAQ.

Conclusion

In this study, it was researched whether there is a difference between the results of the questionnaire marked by the respondent (Self-administered questionnaire - SAQ) and the results of the questionnaire marked by the interviewer (Interviewer-administered questionnaire – IAQ).

The findings show that there is a difference between the data obtained with SAQ and IAQ modes. In addition, the results indicate that the SAQ scores are higher than the IAQ scores. When the reliability analysis and the explained variance are compared, it is concluded that the SAQ method is a better method. However, it should be taken into account that the results in this study may have emerged from the scale used (Satisfaction with Life Scale- SWLS). Because difference and especially which method produces higher or lower scores may vary depending on the measured subject or measuring instrument.

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References:

- Aquilino, W. S. (1998). Effects of interview mode on measuring depression in younger adults. *Journal of Official Statistics*, 14(1), 15-29.
- Back, K. W., Hill, R., & Stycos, M. (1955). Interviewer effect on scale reproducibility. *American Sociological Review*, 20(4), 443-446.
- Bergmann, M. M., Jacobs, E. J., Hoffmann, K., & Boeing, H. (2004). Agreement of self-reported medical history: Comparison of an in-person

- interview with a self-administered questionnaire. *European Journal of Epidemiology*, 19(5), 411-416.
- Boyd, Jr. H. W., & Westfall, R. (1955). Interviewers as a source of error in survey. *Journal of Marketing*, 19(4), 311-324.
- Bowling, A. (2005). Mode of questionnaire administration can have serious effects on data quality. *Journal of Public Health*, 27(3), 281-291.
- Catania, J. A., Gibson, D. R., Chitwood, D. D., & Coates, T. J. (1990). Methodological problems in AIDS behavioral research: Influences on measurement error and participation bias in studies of sexual behavior. *Psychological Bulletin*, 108(3), 339-362.
- Gribble, J. N., Miller, H. G., Rogers, S. M., & Turner, C. F. (1999). Interview mode and measurement of sexual behaviors: methodological issues. *The Journal of Sex Research*, 36(1), 16-24.
- Kaplan, R. M., Sieber, W. J., & Ganiats, T. G. (1997). The quality of well-being scale: Comparison of the interviewer-administered version with a self-administered questionnaire. *Psychology & Health*, 12(6), 783-791.
- Knapp, H., & Kirk, S. A. (2003). Using pencil and paper, Internet and touch-tone phones for self-administered surveys: Does methodology matter? *Computers in Human Behavior*, 19(1), 117-134.
- Kraus, L., & Augustin, R. (2001). Measuring alcohol consumption and alcohol-related problems: Comparison of responses from self-administered questionnaires and telephone interviews. *Addiction*, 96(3), 459-471.
- Malhotra, N. K., & Birks, D. F. (2007). *Marketing Research: An Applied Approach*. Third European ed., Harlow: Prentice Hall.
- Moum, T. (1998). Mode of administration and interviewer effects in self-reported symptoms of anxiety and depression. *Social Indicators Research*, 45, 279-318.
- Okamoto, K., Ohsuka, K., Shiraishi, T., Hukazawa, E., Wakasugi, S., & Furuta, K. (2002). Comparability of epidemiological information between self- and interviewer-administered questionnaires. *Journal of Clinical Epidemiology*, 55(5), 505-511.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scales. *Psychological Assessment*, 5(2), 164-172.
- Presser, S., Couper, M. P., Lessler, J. T., Martin, E., Martin, J., Rothgeb, J. M., & Singer, E. (2004). Methods for testing and evaluating survey questions. *Public Opinion Quarterly*, 68(1), 109-130.

The Role and Responsibilities of the Universities in the Transformation of Anatolian Cities in Turkey¹⁵

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Abstract

Although there are many elements that shape cities, universities have been first among these elements in recent years. The main purpose of the universities, which are central to the societal progress, is to conduct scientific research, generate knowledge, combine cultures and provide necessary professional skills. In addition to these objectives, it is expected that the universities in Turkey would also contribute to their host cities in many ways. Today, each Anatolian city has at least one university. This study aims to question the role and responsibilities of the universities in the transformation of Anatolian cities in Turkey. Therefore, the demographical, economical, geographical, industrial, societal and cultural effects of universities on their cities will be discussed in the framework of Turkey. As the results of the study: i) Universities are expected to play a substantial role as an urban development agent especially in terms of demography and economy, ii) The effects of the universities in the cities are felt more in the undeveloped cities than in the developed ones, iii) Universities also affect their cities in terms of the employment structure, housing, health facilities, physical infrastructure, quality of life, societal and cultural structure.

Keywords: University, Turkey, Anatolian City

Introduction

Universities, in addition to educational functions, contribute directly and indirectly to the provinces in many areas, primarily social, political, economic and cultural. Today, there is at least one university in every city in Turkey, with the thought that they might contribute to the reduction of the developmental differences between regions and cities. In the period after 1950, because of the rapid migration towards the western part of the country, new universities were established in the provinces which have the potential to become centers. For the last two decades, the majority of universities have

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been established by the state in medium-sized provinces in Anatolia. As of February 2017 (yok.gov.tr), there are 6.689,185 university students in total in 81 cities of Turkey including 2.759,708 formal education students, 777.079 evening education students, 74.619 distance learning students, and 3.077,779 open education students. There are 183¹⁶ higher education institutions in total: 112 of them are public, 65 are private, 6 are private vocational schools. The purposes of their establishment are to reduce developmental differences between regions, to set the ground for economic development in cities, especially in trade, and to distribute within the country the economic return provided by the university for the region it was established in. It is also expected that universities will contribute to accumulation of social capital, development of community, and institutional capacity of the region. All these functions provide an entrepreneurial university definition. Universities directly and indirectly affect the city in which they were established - firstly its demographic structure, then, in time, its economy, spatial settlement, social and cultural structure, social and professional improvement, sports and physical activity areas, and industry. In a sense, as expressed by Ransom (2015), the future of cities is related to the future of universities.

Establishing universities out of economic concerns contradict the reasons for the existence of universities. A process based on scientific data is required while establishing a university. The reasons specified as motives in the establishment of universities (Arap, 2010:18), such as the facts that the city is economically underdeveloped, that it has cultural potential, that its young population should be directed towards professionalism, and that the university revitalizes the city cannot be evaluated as scientific. However, due to such and similar reasons, as well as the effects of political people, the establishment of universities has been accelerated.

New universities lack of facilities such as building, equipment, library, laboratory and so on. However, the fact that peoples of all cities want more universities, departments, and students overshadows these problems, and this desire has coincided with the state policy with regards to aiming at economic revival (Arslan, 2016: 1105-1106). In the study, we will discuss the changing role of universities in terms of Turkey, the effects of universities on changes of Anatolian provinces, and the obligations for the development of the province.

¹⁶ When 14 Police Academies, 5 Military Academies and Gülhane Military Medical Academy (GATA), and 5 Public Vocational Schools (Sergeant, Gendarmerie) are added to this number, the total number of higher education institutions is 207.

Changing Roles of Universities

In short, the functions of universities in Turkey are culture generation/transfer, professional education, scientific research and training new scientists. The primary function of a university is to generate/transfer culture.¹⁷ While doing so, universities are affected by the socio-economic and political order (Gasset, 1998: 39, 43). Since 1980, the higher education system in Turkey has been restructured in a new liberal understanding in which the state is minimized and withdraws from the public services, and in which the market share is increased. In this period, the decisiveness of the post-1980 military government, as well as the followed EU process and market-focused economic model, in other words, opening education to the private sector and civil society, were effective. With the "Higher Education Law" no. 2547 enforced in 1981, the universities began to be restructured with the economic-based Anglo-Saxon model. Within this framework, the budgets of universities were limited, and the endeavors to increase privatization and the number of universities accelerated (Sallan Gül and Gül, 2014: 56). Even though the president of the Council of Higher Education at the time, Dođramacı (1989) defines the aim of this law as to "improve the quality of teaching, research and community service in Turkish institutions of higher education without bringing them under any ministerial control", with the effect of new liberal waves, the universities became a community of organizations that undertake the functions of teaching, researching, and public-serving, with the target of complying with the demands of the external world and the market. This new formation is called "multiverse", in other words, "entrepreneur university" (Tekeli, 2003: 132). Higher education started to be commercialized, and the requirements of university components were overshadowed by the financial objectives of the university administrations. The concept of "serving the public" seen on the definitions remained a secondary objective, and the functions of the university started to be discussed through the entrepreneur university model (Arap, 2014: 107). The last generation universities established in Turkey also comply with this model.

The Responsibilities of Universities in the Transformation of Anatolian Cities and the Expectations of Cities

What the cities expect from the universities is very extensive, especially in terms of economic effects. With the idea that a university

¹⁷ The values produced by the universities in the UK are listed as (Kelly, McNicoll, 2011) Educational value; cultural value; intrinsic value; option value; heritage value; economic value; public value; social value; financial value; blended value; instrumental value (and so on and so forth.)

should be established in undeveloped areas, so that the economic and social level of the city will rise together with the newcomers and thus the more universities will be established.

The economic, cultural, social or political roles of universities are interconnected (Brennan et al., 2004). Based on their UK and USA experiences, Goddard and Vallance (2011: 5) list the obligations and roles of universities for cities as follows: i) The universities must become integrated with the cities they are established in, ii) cooperate with the other universities or educational institutions in the city, iii) create opportunities for the society they exist in (individual learners, businesses, public institutions), iv) be administrated in a way that ensures broad participation with the city and region they are established in, v) use their location to form their identity but operate on a global scale. While these are definitions specific to entrepreneur universities, the issues that the universities may be responsible for with regards to the transformation of cities are: To provide the manpower needed by the society, and to direct social improvement. The expectations of cities from the universities or the responsibilities universities are expected to bear with regards to the transformation of cities are discussed below:

Economical Roles and Expectations

Turkey's economy is based more on consumption than on production. In terms of production-based industries, the service industry is at the forefront. The fact that especially the economies of small- and medium-scale cities are based on consumption and focused on the service industry resulted in an increasing importance placed on the universities in the cities and the number of students in those universities (Esgin and Arslan, 2012: 384). While the contribution of the spending of university students on the city's economy varies according to years, cities, and universities, the students are very important to the city's economy.

The effects of universities on the local economy can be evaluated under employment, income, and spending items (Çayın and Özer, 2015:132; Atik, 1999:99). Their economic contributions to the city are the employment of academic and administrative personnel, the payments made (salary, additional course fee, travel allowance, working capital, etc.), the payments made to people, institutions and organizations other than its personnel, and the spending made by the university students. The increase in employment resulting from the development of manufacturing industries that provide goods and services for universities and student spending is an indirect employment contribution (Çayın and Özer, 2015:132, Görkemli, 2009:176, Erkekoğlu, 2000:214). The economic effects of universities on their cities are those whose results are fastest-observed as their calculability is high. When the number of students and academic-administrative personnel is considered,

the direct and indirect contribution of universities to the city's economy is very big. Another element that may be considered among the indirect contributions of universities to the city's economy is the research, symposium or planning works conducted by the universities for the development of the region (Çınar and Emsen, 2001:97).

Following the establishment of universities, a big and young population changes all consumption patterns of the city and results in a significant difference in the service industry in the city (Işık, 2008:162). As an extension of the public policies outlined in order to support the small-scale cities, public universities have recently been established more in smaller, economically weak and emigrant cities. All 15 universities established in Turkey in 2006 are located in cities with a population between 50.000 and 120.000 (Bayraktar, 2011:110; Sargın, 2006:29-30). Increasing population results in an increase in the demand for housing and employment, the need for transportation, and the demand for social equipment and cultural activities. Moreover, together with the graduates, the labor force supply is increased by those who stay in the city.

Roles and Expectations in Transformation of Urban Space

The universities trigger transformation with regards to urban space in the cities they are established in. While campus areas are centers of attraction, housing and service industries develop quickly, starting from the campus surroundings. Following the establishment of universities in small- and medium-scale cities, important structural changes in the urban space usage such as the growth of city area, diversification of urban function, formation of new areas of employment, revival of housing industry, inclusion of residences like dormitories and hostels in the urban living spaces, and formation of new settlements are observed and expected (Akengin and Kaykı, 2013:523-524; Işık, 2008:128; Gürkaynak and Kasımoğlu, 2004:156-157).

Following the establishment of the universities, the city expects to open new cultural, sporting and recreational venues, while the local residents expect the universities to contribute to the socio-cultural development of the city through relations with the staff and students from various cultures (Gürkaynak and Kasımoğlu, 2004:156-157; Gültekin et. al., 2008:264).

Roles and Expectations in University-Industry Collaboration

Common keywords for universities and cities are technology, innovation, and entrepreneurship. Moreover, these terms are at the point where industry and universities intersect. Universities have the capacity to support the industry sector in the cities they are established in, thanks to their

different departments, research centers, techno-cities, inventory studies, and the internship done by the students (Savaş Yavuzçehre, 2016: 241)

University-industry collaboration is significant for the city's development. Manufacturers, universities and public benefit greatly from this collaboration. Manufacturers benefit from it with regards to obtaining advanced and appropriate technologies, eliminating the lack of scientific personnel and equipment, decreasing the resource wastage, solving the cost and quality issues, and increasing productivity, competitiveness, and profit. University can enhance its financial resources and the quality of education, improve the environment of scientific research, and fulfill an important duty and responsibility. Society benefits from the collaboration with regards to the increase of technological knowledge, decrease of external technological dependence, increase in international competitiveness, as well as industrialization and economic development. The countries that are industrialized and are at the level of information society and those which are about to reach the same level are those in which the industry-university collaboration is managed the best (Dura, 1994:115).

Roles and Expectations with Regards to Social Development and Increasing the Quality of Life

Universities established in Anatolian cities function as condensed social transformation agents, and give acceleration to the change the cities may only experience in several years (Vural Yılmaz and Yılmaz, 2013:205-206). It is expected that universities will change their city's social and cultural structure with their libraries, sports facilities, social services, research centers, joint projects with NGOs or local governments, public education, academic conferences, workshops, congresses and student clubs organizations, their radio or TV channels. Students from different cultures go to the Anatolian cities by means of university student exchange programs. These are elements that color the urban culture (Savaş Yavuzçehre, 2016:242).

Universities contribute significantly to the social change and development, in terms of both quality and quantity. The expectations of the city from the universities include the creation of equal opportunities, training qualified workforce, training leaders of future, developing entrepreneur class, improving technology, affecting the propensity to save and the income distribution, and ensuring national unity (Akengin and Kaykı, 2013:503). While these contributions are not easily determined, they are responsibilities that are significant for a society to improve.

Self-transformation of universities is in relation with social transformation (Brenner et al., 2004). Unfortunately, as Anatolian cities focus on their transformation, they invest inadequately in students

improvement. For instance, when cultural investments such as culture center, bookstore, library, etc. are compared to cafes, stores, restaurants, etc., one can see that the cultural investments are of secondary importance (Arap, 2014: 114; Ergun, 2014: 230).

Conclusion

Universities are important actors of the city with regards to the local economy, as they employ a range of personnel, purchase local goods and services, and participate in the cultural life and structured environment of the city. Today, there is at least one university in every city in Turkey. Universities are expected to play a role as development agents in the Anatolian cities. The effect of universities on the cities is felt more in small cities rather than big ones. Universities, whose demographic and economic effects are firstly observed in the city, affect in time the employment structure, housing and health facilities, physical infrastructure, and social-cultural structure of the cities they are established in, and have an indirect effect on the life quality in those cities. Even though it is asserted in the developmental plans or national education councils that the developmental differences will decrease with the establishment of universities, this has not been the case yet. However, to increase the contribution of universities to a city, universities should be established in the cities which have completed most of their infrastructure. The effect of a university to the city is reduced due to the decreased education quality in higher education and the inadequacies of the physical, economic and social/cultural structure of the city. Anatolian cities that do not have the identity of 'university city' will not be preferred by the students in the near future.

For Anatolian cities to be better university cities, city administrators and universities should collaborate while the future of the city is planned; the economic effects of the universities should not be brought to the forefront and it should not be forgotten that the establishment purpose of universities is to generate science. As a result of the excess young population in Turkey, university supply has not yet met the demand. However, in terms of the establishment of universities; country realities, rationalism and science should be prioritized instead of populist policies. Universities should be turned into democratic and autonomous corporate structures that can place all its elements in the education, training, research and service-providing stages. Along with quantitative increase, so as to meet the increasing demand for higher education in Turkey, policies towards providing a qualitative and qualified higher education should be followed.

References:

- Akengin, H., Kaykı, A. (2013). “Şehirleşme Üniversite İlişkinine Bir Örnek: Gazimağusa”, *Marmara Coğrafya Dergisi*, 28: 501-525.
- Arslan, F. (2016). Üniversite Öğrencilerinin Şehirle Kurduğu Ekonomik ve Sosyal İlişkilerden Memnuniyet Analizi: Sivas Cumhuriyet Üniversitesi Örneği, *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, Cilt: 5, Sayı: 4, s. 1103-1120
- Arap, K. S. (2010). Türkiye Yeni Üniversitelerine Kavuşurken: Türkiye’de Yeni Üniversiteler ve Kuruluş Gerekçeleri, *Ankara Üniversitesi SBF Dergisi*, 65-1, s. 1-29.
- Arap, K.S. (2014). “Üniversite-Kent Etkileşiminden Beklentiler”, *Toplum ve Demokrasi Dergisi*, Yıl 8, Toplum ve Demokrasi, Yıl 8, Sayı 17-18, Ocak-Aralık, s. 105-119.
- Atik, H. (1999). “Üniversitelerin Yerel Ekonomiye Katkıları: Teori ve Erciyes Üniversitesi Üzerinde Bir Uygulama”, *Erciyes Üniversitesi İ.İ.B.F. Dergisi*, 15: 99-110.
- Bayraktar, N. (2011). Kent Kültürüne İlişkin Kamuoyu Oluşturulmasında Üniversitelerin Rolü, Doktora Tezi, Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Brenner, J., King, R., Lebeau, Y. (2004). The Role of Universities in the Transformation of Societies, An International Research Project, <https://www.open.ac.uk/cheri/documents/transf-final-report.pdf> (5.3.2017)
- Çayın, M., Özer, H. (2015). “Üniversitelerin İl Ekonomisine Katkısı Ve Öğrencilerin Tüketim Yapısı: Muş Alparslan Üniversitesi Örneği”, *Dokuz Eylül Üniversitesi, İktisadi ve İdari Bilimler Fakültesi Dergisi*, 2: 131-147.
- Çınar, R., Emsen, Ö. S. (2001). “Eğitim ve İktisadi Gelişme: Atatürk Üniversitesi'nin Erzurum İl Ekonomisi ve Sosyal Yapısı Üzerindeki Etkileri”, *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 15 (1-2): 91-104.
- Doğramacı, İ (1989). The Responsibilities Of Universities To Society And A Review Of The Evolution Of Turkish Higher Education During The Past Eight Centuries, <http://www.yok.gov.tr/documents/10279/30217/THE+RESPONSIBILITIES+OF+UNIVERSITIES+TO+SOCIETY+AND+A+REVIEW+OF+THE+EVOLUTION+OF+TURKIS+HIGHER.pdf/4699fd37-b8c5-4e17-9328-7e3e0ab65660> (4.3.2017).
- Dura, C. (1994). “Üniversite-Sanayi İşbirliği Üzerine Bir Deneme”, *A.Ü. Siyasal Bilgiler Fakültesi Dergisi*, Cilt: 49, 3-4: 101-117, <http://dergiler.ankara.edu.tr/dergiler/42/465/5318.pdf>, (4.11.2015).
- Ergun, C. (2014). “Üniversite ve Kent İlişkisi Üzerine Görüşler: Mehmet Akif Ersoy Üniversitesi Örneği”, *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, Eylül 2014, Sayı 31, 216 – 237.

- Esgin, A., Arslan, F. (2012). “Türkiye’de Sosyal Bilim Algısının Negatifliği ve Üniversitenin Misyonu Üzerine”, Uluslararası Yükseköğretim Kongresi: Yeni Yönelişler ve Sorunlar, Ed. Durmuş Günay ve Ercan Öztemel, İstanbul: Deomed Yayıncılık, c I, s.384.
- Gasset, J. O. (1998), Üniversitenin Misyonu, çev. N. G. Işık, YKY Yayınları, İstanbul.
- Goddard J., Vallance, P. (2011). The Civic University: Re-uniting the University and the City Newcastle University UK, http://www.eua.be/Libraries/sirus-conference/John_Goddard_Paper_for_Seville.pdf?sfvrsn=0 (4.3.2017)
- Gültekin, N., Çelik, A. Ve Nas, Z. (2008). “Üniversitelerin Kuruldukları Kent’e Katkıları”, Elektronik Sosyal Bilimler Dergisi, Bahar-2008, 24: 264-269.
- Gürkaynak, M. R., Kasimoğlu, M. (2004). “Türkiye’de Üniversite-Komşu Çevre Etkileşimi: İşbirliği İçin Bir Ön Çalışma”, Amme İdaresi Dergisi, 3 (37): 147-162.
- Kelly, U., McNicoll, I. (2011). Through a glass, darkly: Measuring the social value of universities, https://www.publicengagement.ac.uk/sites/default/files/publication/80096_nccpe_social_value_report.pdf (1.3.2017).
- Özdem, G., Sarı, E. (2008). Yükseköğretimde Yeni Bakış Açılımlarıyla Birlikte Yeni Kurulan Üniversitelerden Beklenen İşlevler (Giresun Üniversitesi Örneği, Üniversite ve Toplum, Mart 2008, Cilt 8, Sayı 1, <http://www.universite-toplum.org/text.php?id=351> (26.2.2017)
- Ransom, J. (2015). Future Of Cities: Universities and Cities, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/477295/future-cities-universities.pdf
- Sallan Gül, S., Gül, H. (2014), “Türkiye’de Yükseköğretimin Gelişimi, Güncel Durumu ve Eleştirisi”, Toplum ve Demokrasi, Yıl 8, Sayı 17-18, Ocak-Aralık, s. 51-66.
- Sargın, S. (2006). Üniversiteler-Şehirleşme Üniversitelerin Şehirleşmeye Etkileri, Fakülte Kitabevi, Isparta.
- Savaş Yavuzçehre, P. (2016). Üniversitelerin Kentlerine Etkileri: Denizli Pamukkale Üniversitesi Örneği. Süleyman Demirel Üniversitesi İktisadi İdari Bilimler Fakültesi Dergisi, 21(1), 235-250.
- Tekeli, İ. (2003), “Dünya’da ve Türkiye’de Üniversite Üzerinde Konuşmanın Değişik Yolları,” Toplum ve Bilim Dergisi, 97: 123-143.
- Vural Yılmaz, D., Yılmaz, C. (2013) “Kent-Cübbe İlişkisi Üniversiteler ve Anadolu Kentlerinin Öğrencileşmesi”, (Ed.) Ergun, C., Güneş, M., Dericioğlu, E., A., Kent Üzerine Özgür Yazılar, Bağlam Yayınları, İstanbul.
- WEB1. Öğrenci Sayıları Özet Tablosu 2015-2016, <https://istatistik.yok.gov.tr/>

Public Relations in Service Sector and Corporate Image Management: A Research in Transportation Sector

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Abstract

Because of the services having the features of being human-centered, consumed when they are produced and not able to be stocked; the institutions should give more importance to the works of public relations, use the media communication intensively; maintain and improve their image they should do this permanently. The image of an institution that the companies and organizations reflect out, has a vital importance in its relations with the public. Public relations give reputation to the image of an institution. Public relations have the major responsibility in creation, protection, and consolidation of an institution's image. Under the scope of our work, it is discussed how the public relations studies; that we think it is not used intensively, affect the corporate image and especially on the necessity of public relations methods and techniques to be used by the enterprises to create a corporate image operating in service sectors. As a field research, the in-depth interview was made with the Marketing Manager of Pamukkale Tourism in the transportation sector, which is one of the leading on road public transportation companies, on to what extent they use the advantage of public relations activities on creating a corporate image. As a result of research, we reached the conclusion that Pamukkale Tourism take the advantage of social media with public relations studies, especially considering the investments they made on social media, they used the public relations methods about customer satisfaction and providing a service quality and all of these studies affect the corporate image in positive frame.

Keywords: Public Relations, Corporate Image, Service Sector

Introduction

In today's increasingly competitive environment, institutions often must strengthen their corporate image in order to create demand by differentiating from other enterprises. With the formation of the internal and external image of the institution, its products and services are demanded

more, more qualified employees are in demand of working in that workplace, both financial institutions, public institutions as well as the suppliers confide that institution and sustain long-term relations.

In particular, since there aren't any concrete products presented in the service sector, the image of the institution is of great importance. At this point, it becomes a must to focus on public relations studies in order to build the corporate image and to ensure services are being demanded. Configuring intra-institutional and non-institutional communications, public relation studies are among the cornerstones providing the corporate image and protecting this image in the service sector.

In this study, one of the qualitative research techniques, in-depth interview technique, is applied in order to determine the contribution public relations activities made to the firms in the service sector. Operating in service sector as one of the leading firms in road transportation sector, Pamukkale Tourism Transportation Trade and Ltd. Co., which has carried an average of 300 million passengers by having traveled an average of 3.8 trillion km for 53 years with its fleet reaching up to 400 vehicles and 3,600 employees in 500 different points, is determined as the subject of the research. In this research, it has been tried to find out what public relations activities Pamukkale Tourism Transportation Trade and Ltd. Co. benefited to preserve and develop its corporate image, and what these activities have earned to the enterprise. In this context, the in-depth interview was conducted with the company's senior official. In the last part of the research, some suggestions were made on providing more effective public relations services in service sector enterprises.

The Service Sector

It is a known fact that the service sector has increasingly become more important in all the world's economies, especially in recent years. When people's desire to spare more time to themselves is also added to developing technology and complicated work life, the service sector has become a growing sector. While people were performing many services on their own before, there are many experienced, expert and professional individuals and organizations to offer that service today (Baydaş, Gökdeniz and Erdal, 2008: 1).

Services are spread across so many different areas. It ranges from the services provided in institutions related to physical development and physical health to the services provided by financial institutions. Services also include a wide variety of heterogeneous activities. For instance, it may emerge in a thought, entertainment, information, food, security, transportation or in many aspects like these. Therefore, service has become a term which is extremely complex, dispersed and difficult to define.

According to İçöz (2005), a current service definition is as follows: "Service can be defined as an abstract activity or benefit offered to one party by another and it does not result in possession of anything. Service production can be linked to or independent of physical production" (p.9).

A Service requires face to face relation and closeness between the producing and the consuming parties of the service. For this reason, the existence of a human being is inevitable in the service sector. In labor-intensive and service-intensive featured service, quality and performance are also human depended. Since services are produced and consumed simultaneously, customers are often present in the environment where the service is offered and they communicate with the operating personnel (Öztürk, 2010: 25).

Service quality also affects the customer's purchasing behavior and contributes positively to the financial results of the enterprise by attracting the customer to the enterprise (Zeithaml et al. 1996 transformed by Barutçu, 2008: 109).

Enterprises should provide services that meet customer expectations and should communicate, inform, listen to and sometimes even surprise customers. Particularly in service enterprises, these activities should be planned and regularly carried out by the public relations units, expectations of the internal and external customers should be investigated, and communication plans aimed at them should be carried out with appropriate communication tools.

Public Relations Activities in the Service Sector

The satisfaction and fulfillment of the needs and desires of individuals depend on the mutual involvement of individuals, companies, institutions, and organizations. Public relations in this regard has an important role in establishing and managing the relations between people and organizations (Tengilimoğlu and Öztürk, 2011: 21).

As in the modern business administration understanding, all organizations have to internalize public relations as one of the indispensable components of the management process, which has an aim of giving information and account to public about the services they perform, learning the wishes and thoughts of the public and making use of them, and thus providing the highest rate of adaptation between themselves and the public (Sezgin, 2007: 3).

No matter how qualified is the service an enterprise produces and offers, there will be some service disruptions that occur from time to time. In order to eliminate these disruptions, the enterprise will have to change its image in public opinion. One of the methods it will be used for this purpose is public relations. However, it is also known that public relations studies

which have been done for many years for a positive image can be lost in a short time, in the case of a small issue (İslamoğlu, Candan et al. 2006: 255).

Today, when the competition is so intense, enterprises have begun to use non-price competition tools to differentiate from their competitors. Service enterprises also use their public relations departments to communicate with customers, listen to them, surprise them when it is necessary, and show them reassuring behaviors. Customers are able to communicate all kinds of their requests and complaints to these units and get quick returns. At this point, the customer who trusts to the enterprise might well remain faithful for many years. Those enterprises which prepare their loyalty programs, creating customer cards, and databases for it and question the customer satisfaction constantly through questionnaires, face-to-face and phone interviews are able to survive long years and build a good corporate image.

The establishment of good mutual relations and communication between the customer and the transactor in the service process can be formed by a qualified service delivery environment in the enterprise. Therefore, no matter how developed is the technology of the service, the human factor is deeply important in giving a service in the best possible way (İçöz, 2005: 35). Business firms acting with the philosophy; "our most important customers are our employees, always win". Applying the public relations projects firstly to the employees in the institution, taking their support and interpretation will bring benefit in the long-term. Not only the commitment of the employees to the company will increase but also the work quality of them within the organization can be tested.

It is known that the efforts of the companies that are endeavoring for the satisfaction of their employees are turned into the satisfaction of the customers and the profit increase in the enterprise after all. If the service personnel are not content with their job, they reflect that to the customer, and the customer is not satisfied with the service. In particular, the quality of services in the marketing of professional services is closely associated with the person providing the service. Customers do not only mind if the technology of the service is good, but they also give great value to the quality of the service (Karahan, 2006: 98)

As a result of the long-term public relations studies performed by the business firms, the image of the institution is created, the goods and services of the business firms with a high corporate image are demanded more, the crisis situations are overcome more easily, and more qualified job applications are received. There are many factors constituting the corporate image. The experience in product and service, the stance of the management, corporate citizenship, communication studies, employee behaviors and attitudes, organizational structure, physical environment and financial

performance are some of these. The most important one among these factors is the communication studies of the institution which have an importance for the reflection of the business firm in the external environment. If we are to define the corporate image as the perceived image of the institution (Peltekoğlu, 2009: 570), then it is appropriate to direct the public relations studies to the way the institution is wanted to be perceived in the external environment (such as customers, suppliers, financial institutions, public institutions).

When the constantly changing expectations and needs of the targeted market are also added to many of the mentioned features of the service sector before, like being abstract, having the production and consumption simultaneously, the necessity of the public relation studies arises. In order to increase the corporate image, service companies have to take public relations studies into their priorities in their external marketing efforts. Public relations activities lie on the basis of the healthy communication established both with the internal and with the external target group.

The Field Research

As a result of the high number of firms operating in the transportation sector, and airline services being frequently preferred by consumers in terms of both low price and appropriate quality, the competition rises. Being aware of the necessity of differentiating from their competitors to be able to increase their market shares, road transport operators also use public relations methods and techniques to both strengthen their corporate image and act towards customer expectations.

Within this scope, the aim of this study is to reveal the public relation activities used by one of the leading firms in road transportation sector, Pamukkale Tourism Transportation Trade and Ltd. Co., which has carried an average of 300 million passengers by having traveled an average of 3.8 trillion km of road for 53 years with its fleet reaching up to 400 vehicles and 3,600 employees in 500 different points, to protect and develop its corporate image and what these activities have earned for the company through an in-depth interview with its senior official.

By this interview; the activities carried out by the institution towards the internal customers, the studies carried out by the institution to ensure the service quality of the institution, and the extension they use the public relations methods and techniques or not in these studies are investigated.

In order to investigate the importance Pamukkale Tourism gives to public relations techniques in creating its corporate image, questions prepared by one of qualitative research methods, in-depth interviewing, are directed to the company's senior official, and the results are interpreted.

The questions are prepared in 3 sections:

In the first section, the concept of customer service is emphasized, and customer satisfaction and public relations activities and the studies were done to provide and strengthen this satisfaction are investigated.

In the second section, the public relations studies made towards employees, who have a great contribution in creating a corporate image, are examined.

And in the third section, considering the fact that corporate identity must be established to create and protect the corporate image, questions about the studies done related to corporate identity were directed.

In the answers given to the questions in the first section, it has been observed from customer questionnaires and communication studies established with the customer that Pamukkale Tourism Transportation Trade and Ltd. Co. has made investments towards their customers and evaluated customer requests and demands. It has been determined that by examining the customer data with the loyalty card named "Pamukkart" it has put public relations programs in accordance with its target market into practice. Since 40% of its target market consists of students, Pamukkale Tourism Transportation Trade and Ltd. Co. organizes campaigns directed to students. Pamukkart members are reached via SMS messages, e-mail messages and are informed about the target market events and campaigns.

A service compensation in which a structure is created for social media, rapid responses are given to feedbacks from social media, customer requests and the complaints are evaluated, is being used. For crisis situations, they have crisis teams who have been trained in the crisis management process, from the general manager to departmental heads.

Surprise the customer tactic, which has an importance for the service sector, is also done by following the customers on social media, guerrilla marketing tactics are applied. Methods of surprising and impressing the customers are applied through establishment of an emotional bond with customers, like organizing meal in the closest way station for the customer who says "I am hungry" from social media, allocating bus tickets for the customers who are in a difficult situation because of his canceled flight, blanketing the customers who are sleeping.

Being published every month, with "the Pamukkale" image magazine consisting of columns, such as fashion, technology, art, interview, biography, sports, health, it is aimed to make customers to have a pleasant time.

It has been determined that Pamukkale Tourism Transportation Trade and Ltd. Co. also attaches great importance to the concept of corporate citizenship. It compiles its social responsibility projects under the name of "Pamukeller" and continues to carry out projects especially in the field of education. Social responsibility projects are being carried out with universities and student clubs at universities. In the field of art, it sponsors

the International Ankara Theater Festival, brings together thousands of people who have never been to the theater with the theater. In the field of health, it carries on studies with the Foundation for Children with Leukemia and a certain share of each ticket sold is donated to the benefit of the children with leukemia. With the "Voice Descriptions Social Responsibility Project" aimed at visually impaired people, it provides the opportunity to watch movies for its visually impaired customers. It has been seen that these applications are shared with the target market both on its website its magazines or in the posters at the ticket sales branches, and also with the use of e-mail and SMS.

In the second section, questions are asked to determine the communication studies directed to employees, education programs, and internal public relations studies. Internal communication is provided through the software named "Pamukwin" and the education of the employees at every level is planned with "Pamukkale Academy" which makes training plans for employees. In addition, there is an in-house magazine, which is prepared regularly every month and shared with employees, containing news about the company.

Pamukkale Tourism Transportation Trade and Ltd. Co. has been giving great importance to public relation studies since the past. In 1990, the Public Relations Directorship was established in Izmir and today, the public relations activities are carried out within the Marketing department.

In the third section; it is seen that the name of the brand has been taken from Pamukkale, a natural wonder in the hometown of the founders, Denizli and that its corporate identity has been established, and the same standard has been maintained in printed documents, communication studies, personnel clothes, interior and exterior layouts, external and internal visual arrangements of the vehicles.

If we examine the press relations in two groups as news studies and advertising studies, Pamukkale Tourism Transportation Trade and Ltd. Co. is in communication with the sector newspapers and magazines and its directors inform about the institution through press interviews.

Conclusion and evaluation

It is clear that it is quite difficult to provide customer satisfaction for a long time in the service sector. The Customer might well switch to the rival company even in the case of a minor distress. In order to provide customer loyalty, it is necessary to effectively perform public relations practices that will provide long-term cooperation with customers. Clients of companies that can keep up their corporate image have confidence in that institution, follow the works has been done by the institution and stand by the institution even during the crisis periods.

It is seen that Pamukkale Tourism administration also communicates with the customers by using the public relations methods and techniques in order to strengthen its corporate image. Both social media and magazines, web sites, regular surveys are used to communicate with external customers, and with the loyalty card, Pamukkart, the campaigns, and discounts are applied for the customers. In addition, Pamukkale Tourism, which implements the concept of corporate citizenship and shares it with all target groups, carries out the mission of giving what it received from the public back to the public, in the awareness of its social responsibility. All these practices are shared through communication studies made by the institution and they contribute to the image of the institution. In addition, Pamukkale Tourism, which has a young and dynamic vehicle fleet and staff, has always tried to put its activities on the basis of trust in order to strengthen its corporate image and to provide this trust, it has carried on practices directed to customer reassurance and satisfaction.

As a result of this research, it has been reached to the conclusion that customer relations and public relations concepts are intertwined in the service sector, and public relations practices in customer service are important.

If we investigate public relations activities in two main functions as recognition and promotion, we see that Pamukkale Tourism has made progress towards recognizing the target group in its public relation studies and has performed projects towards university youths, who are the main target group of the institution. It is thought that Pamukkale Tourism must have some improvement studies on sharing of the public relation studies with the external environment. The public relations department should have a separate structure rather than being within the Marketing unit, that their activities should take more place in the press, and that the public relations activities should be coordinated from Istanbul in order to ensure a better communication with the press.

Considering that the service sector is on a knife's edge and volatile as a sector, the only power that can keep the enterprises up is actually their corporate images. And the most important factor in protecting these images is the long-term and well-planned public relations studies.

References:

- Barutçu, Süleyman (2008). *Hizmette Kalite ve Toplam Hizmet Kalitesi Yönetimi*, (Editörler: Adnan Özyılmaz, Ferit Ölçer), Güncel Yönetim ve Organizasyon Yaklaşımları, Seçkin Kitapevi, Ankara
- Baydaş, Abdulvahap, Gökdeniz, İsmail, Erdal, Burçin (2008). *Hizmet Sektörünün Gelişimi ve Önemi*, (Editörler: Kahraman Çatı, Abdulvahap Baydaş), Asil Yayın Dağıtım, Ankara

İ  z, Orhan (2005). Hizmet Pazarlaması, Turhan Kitapevi, Ankara
İslamođlu, Ahmet Hamdi, Candan, Burcu, Hacıfendiođlu, Őenol, Aydın,
Kenan (2006). Hizmet Pazarlaması, Beta Yayınları, İstanbul
Karahan, Kasım (2006). Hizmet Pazarlaması, Beta Yayınları, İstanbul
Öztürk, Sevgi AyŐe (2010). Hizmet Pazarlaması, Ekin Basın Yayın, Bursa
Peltekođlu Filiz Balta (2009). Halkla İliŐkiler Nedir, Beta Yayınları, İstanbul
Sezgin, Murat (2007). Halkla İliŐkiler, Yüce Medya Yayınları, Konya
Tengilimođlu, Dilaver ve Öztürk, Dilaver (2011). İŐletmelerde Halkla
İliŐkiler, Se kin Yayıncılık, Ankara
www.pamukkale.com.tr

“Pay Without Work – Social Wage”

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Abstract

The wage is defined in many national and international legal arrangements, especially in the Constitution, due to the fact that the labor contract is the basic element and because of the social and legal importance it carries. In the first paragraph of Article 55 of our Constitution, is included in the definition of "The wage is for your sake". According to article 1 of Convention concerning the Protection of Wages No. 95, prepared by the ILO and approved by Turkey, “ the term wages means remuneration or earnings, however designated or calculated, capable of being expressed in terms of money and fixed by mutual agreement or by national laws or regulations, which are payable in virtue of a written or unwritten contract of employment by an employer to an employed person for work done or to be done or for services rendered or to be rendered”. The wage earned by the worker without any work compensation is called "social wage" in the doctrine. “Social wage” can originate from the law or the employment contract. In this study, the concept of social wage will be discussed and the concept will be examined in the place of our working legislation and in the regulatory judgments of our law.

Keywords: Wage, social wage, labor contract

Introduction

The definition of Labor Contract is stated in Article 8 of Labor Law no 4857 enrolled on 22.05.2003 and came into force on 06.2003. As per the definition in Article 8/1 of Labor Law: “Labor contract is the contract where one party (worker/employee) undertakes to do a work dependently and the other party (employer) undertakes to pay a wage”.

Once again the Labor contract is defined as “the Labor contract is the contract where the employee undertakes to do a work for a certain or uncertain period of time depending on the employer and the employer undertakes to pay them a wage in terms of time or the work completed,” in

Article 393 of the Law of Obligations no. 6098 enrolled on 11.01.2011 and came into force on 01.07.2012.

Within the frame of these definitions, it would be said that a labor contract is composed of factors of performing a work, wage, and dependency (Çelik, 2006: 69; Oğuzman, 1986: 4; Süzek, 2006: 189; Tunçomağ/Centel, 2005: 65; Demircioğlu/ Centel, 2005: 76; Eyrenci/Taşkent/Ulucan, 2006: 54-55; Mollamahmutoğlu, 2005: 205; Akyiğit, 2007, 97; Antalya, 1987: 123; Zevkliler, 2004: 325; Günay, 2006: 325). The wage to be paid to the dependent employer (worker) composes one of two faces of labor contract included in contract type in which the parties encumber each other with debts (synallagmatic contracts) (Güzel, 2005/2: 123). While the worker undertakes to use their Labor under the authority of employer and become dependent on them, they aim to obtain a wage in exchange. Thus the action of paying a wage of the employer constitutes the reciprocity of the action of the worker to do a work.

Concept of Wage in General

As it is the fundamental factor in a Labor contract and due to the social and legal importance it bears, the wage is defined in numerous national and international legal regulations, Constitution being in the first place. The definition, “wage is the compensation of Labor” is included in Article 55, Paragraph 1 of our Constitution. In Article 1 of the Protection of Wages Convention No. 95 drawn up by ILO and approved by Turkey it is stated that “the term wages means remuneration or earnings, however designated or calculated, capable of being expressed in terms of money and fixed by mutual agreement or by national laws or regulations, which are payable by virtue of a written or unwritten contract of employment by an employer to an employee for work done or to be done or for services rendered or to be rendered.”

In Article 1, subparagraph (a) of the Wages Equality for Equal Work between Male and Female Workers Convention No.100 wage is defined as “ordinary, root or minimum wages or salaries and all other advantages paid to workers directly or indirectly by the employer in exchange for the Labor of the worker either in cash or in goods.”

As for the Article 32/1 of Labor Law, it is stated that “in the general sense the term wages is the amount paid in cash to a person by the employer of third persons in exchange for a work done.” Even though a similar definition is included in Article 29/1 of Maritime Labor Law, there is no definition of wages in Press Labor Law and in Law of Obligations.

There exist various definitions of wages in doctrine. According to a definition made in doctrine wage is; “an income consists of the money and payments in kind provided to workers in exchange for the work they do”

(Esener, 1978: 162) According to another description; “wage is a monetary debt to be paid for employees and another source of income that earns their and their family’s keep along with being the crop of their Labor for workers” (Saymen, 1954: 487). In a more detailed description made in doctrine wage is “a type of income comprised of money or advantages having monetary value provided to workers by employers or third persons in exchange for a service performed except the situations where a wage should be paid to one even if they don’t work” (Centel, 1988: 58) .

Elements of Wage

Payment in Exchange for Work

In exchange for performing the work, which is one of the factors in the contract and one of the fundamental liabilities of workers⁶, the liability of employers to pay a wage comes into question.

Worker accepts in advance to be subject to the system in the workplace and the general working conditions to perform the work specified in the contract. This is to say that the worker is obliged to fulfill the liability of performing the work he undertook which is their essential liability of action under the conditions of the workplace. The liability of performing the work can be described as the worker’s allocation of their Labor to the employer by being subject to the working conditions in the workplace. An employer can determine how the liability of performing the work shall be fulfilled basing on the managerial authority, in compliance with law, contract, professional qualities and customs and in good faith. The worker is obliged to follow the instructions given by the employer (Çelik, 2006: 122; Süzek, 2015: 274; Tunçomağ/Centel, 2005: 94) .

Worker’s stand-by presence for work is regarded as the performance of work as a rule. But it is not possible to regard all standby situations as the performance of work. In order for the standby situation to be regarded as the performance of work, this situation must be based upon the Labor contract and should be assessed as work in terms of economy (Tunçomağ/Centel, 2005: 49; Centel, 1988: 60; Reisoğlu, 1968: 60). In case the worker is ready to work with respect to these attributes, the employer shall be liable to pay wage.

Payment by Employer or a Third Person

Wage is described as “The amount provided and paid in cash by an employer or third persons to a person in exchange for a work by and large” in Article 32 of Labor Law. It is stated in Article 83 of Law of Obligations that “the debtor is not obliged to pay their debt in person unless the payee doesn’t benefit from the debt to be paid by the debtor in person.” Therefore, even though the liability of worker with respect to performing the work is a

liability to be administered in person, the liability of the employer to pay the wages is not a personal action to be taken and it could be fulfilled by the employer or by a third person.

Payment with Money or with a Benefit Having Monetary Value

Wage is described as “The amount provided and paid in cash by an employer or third persons to a person in exchange for a work by and large” in Article 32, Paragraph 1 of Labor Law. On the other hand, it is stated that “The wages cannot be paid with a bill to order (bond), coupon or a note claiming that it represents the functional currency in the country or by any other means,” in Article 32/III of Labor Law. Furthermore, it is regulated in Labor Law that the payment with respect to wages should be made in Turkish Liras and how the payment should be made if it decided that the payment will be made in foreign currency (Article 32/II, Labor Law). With regard to this provision, “As a rule, wages shall be paid in Turkish Liras either in the office or by depositing it into a bank account. If it is decided to pay the wages in foreign currency, it can be paid in Turkish Liras in accordance with the rate of exchange on payment day”.

Types of Wage

Basic Wage

Expressed as basic wage, net wage, base pay, root wage and wage in general, it is the amount to be paid to a worker in exchange for the work they perform. Basic wage is described in Article 32 of Labor Law as “the amount paid in exchange for work”.

In case the wage to be received is not specified when calculating the right of workmanship, basic wage shall be based on. Basic wage is the base and overall wage is an exception (Süzek, 2015: 280; Narmanlıoğlu, 1998: 215; Mollamahmutoğlu, 2005: 215). But it is clearly specified that the overall wage shall be based on in some cases. For example, the overall wage is used as a base when calculating severance and notice pay.

Broad Wage

Broad wage is the wage calculated by adding the interests having monetary value stemming from either the contract or the law to basic wage (Centel, 1988: 117; Mollamahmutoğlu, 2005: 371).

The term “broad wage” is being used as a concept including overtime work, weekends, pay for national holiday and vacation pay, premiums, bonuses, commissions and social benefits along with basic wage (Çelik, 2006: 133; Süzek, 2015: 280). Additional pays included in broad wages can arise from the law, Labor contract, workplace practices or collective Labor agreement.

Social Wage

The wages originating due to the impact of social thoughts that the worker has a right to receive without performing any work are called “social wages” in doctrine (Süzek, 2015: 307) . It can arise from Social Wages Law or Labor contract (Centel, 1988: 217; Eyrenci/Taşkent/Ulucan, 2006: 122; Narmanlioğlu, 2010: 627).

Social Wages Originating from Law Wages Paid Due To Forced Causes in Articles 24/III and 25/III. Of Labor Law

It is stated in Article 24, Paragraph III of Labor Law that “the Labor contract can be terminated by the worker provided that there are forced causes in worker’s workplace to necessitate the business interruption for more than a week”. As it is seen, in order to the right of the worker to terminate the Labor contract for justifiable reasons to arise, the forced causes in the workplace should continue at least for a week. The forced cause condition stated in this provision does not occur around the worker but it is related with workplace and makes it impossible to work in the workplace for a period lasting more than a week and allows the worker to terminate the contract for justifiable reasons.

It is stated in Article 25, Paragraph III of Labor Law that the employer can immediately terminate the contract for justifiable reasons provided that a forced cause occurs in the workplace which prevents to work in the workplace for more than a week. The forced causes stated in this provision don’t occur in the workplace but occur around the worker beyond worker’s command, such as fire, earthquake, and epidemics (If the forced cause preventing the work in workplace occurs in the workplace, the right to terminate the contract for justifiable reasons belongs to worker but not to employer. Hence Supreme Court Assembly of Civil Chambers described this matter in a judgement as: “...as it is seen in Article 17 that if the forced cause occurs because of the worker, right of termination without notice belongs to employer and as seen in Article 16 if it occurs in relation with workplace, right of termination belongs to worker. In that case worker can’t use the right of termination without notice if forced cause relates to them and employer can’t use if it is otherwise around.” Yarg.HGK, T.21.3.1979, E. 1977/9-876, K. 1979/316 (Oğuzman, No: 10). (Aktay/Arıcı/Kaplan, 2011: 190). The worker is not able to perform their liability to perform the work due to the temporary impossibility to perform without their fault and as a result of the said events (Yuvalı, 3/2012: 16). In case a forced cause occurs with regard to the worker, the employer may use their right of termination at the end of one week that they should wait for if they wish or may wait for the forced cause to disappear and doesn’t terminate the contract. But they are not

obliged to pay any kind of wage to the worker within this period (Süzek, 2015: 516).

If a worker cannot work or cannot be made work due to the forced causes stated in Articles 24 and 25, Paragraph (III) under Article 40 of Labor Law, there is a provision stating that the employer pays half-wage per day up to one week during this waiting period (*Decision od 9th Civil Chamber of Supreme Court concerning the subject: "In reference to the information and documents in the file, defendant employer sent out the workers including the claimant to unpaid leave due to economic crisis. Even though this request was accepted as it is without the consent of the claimant worker for an unpaid leave between the dates of 01.03.1999-14.03.1999, Article 34 of Labour Law no. 1475 was not taken into consideration. This article stipulates to pay half-day wage per day to the worker who could not work due to forced causes up to one week. In this respect, it should be contented with ensuring the amount to be found after calculation as the worker has the right to be paid half-wage for a period of one week". 9. CC, 13.11.2000, 2000/11076 E., 2000/16101 K).* The half-wage paid for 7 days at most during which the worker is not able to work because of forced causes can be named as "a social wage originating from law". Because worker or employer are not able to terminate the Labor contract during this period, Labor contract is still valid but due to reasons rooted in worker or employer, the worker cannot fulfill their liability to perform a work for 7 days. But even if they don't work during the period of 7 days, Article 40 of the Law regulates to pay half-wage to the worker as a mandatory provision (*But if labour contract is terminated before the occurrence of forced cause, they are not entitled to be paid half-wage "social wage". 9. CC, 16.03.1993, 1993/3548 E., 1993/4348 K.*).

Wages Paid for Weekends or General Holidays

Weekend and weekend wage for the workers employed by workplaces included within the scope of Labor Law are specified in Article 46 of Labor Law. Pursuant thereto, there should be at least twenty-four hours holiday without a deduction for every worker within a period of seven days before the weekend, provided that they have worked in days specified in Article 63 of Labor Law (a. 46/I). Day wage for the weekend holiday of the worker who deserves the right of weekend holiday shall be paid in full for the off day not necessarily in exchange for work (a. 46/II). Thus the worker is able to use their legal right to rest pursuant to Article 50 of our Constitution. If the worker is made to work during the weekend holiday, the subject of getting paid for the weekend holiday and for the time they work shall come to the fore with regard to the worker. On the other hand, if a worker works during the weekend holiday, it will also result in exceeding

normal weekly working hours. Accordingly, overtime work will be mentioned for the said worker. Since the worker who works during the weekend holiday will be paid both the weekend wage and time-and-a-half overtime wage, it will be necessary to pay the worker for the weekend day they work 2.5 fold of daily wage. Thus the worker will earn the right to rest (weekend holiday) for 24 hours without any deduction provided that he worked in other days of the week and they will receive their wage even though they don't work during that period. This will also provide using the right to rest ensured by Constitution without having any economic concern. In short, the worker will have a full day wage without working. Thus the wage paid to a worker for the weekend can be regarded as a social wage.

Pursuant to our Labor Law, even though the workers don't work in days regarded as national holidays and days of general holiday, their daily wages shall be paid in full without being paid in exchange for a work. If the workers are made to work in the said days, they will also earn the right to receive additional payment for each day they worked (a. 47/I). Therefore the workers working during national holidays and days of general holiday shall be paid a wage in the amount of their two-day wage. Thus the wage paid to a worker for days of general holiday, even though they don't work during that time is a social wage.

Wage Paid During Holidays with Pay

The annual right to paid leave is an economic and social right secured by Constitution. Annual paid leave is described as a leave which releases the worker from the liability to work enables them to rest by receiving the wage paid by the employer in advance (Akyiğit, 2000: 30). The right of paid annual leave is one of the rights unique to workers and this right cannot be renounced. The worker cannot renounce this right during the term of Labor contract even voluntarily and the contracts including renouncement are invalid.

The annual right to paid leave is a right entitled to the worker to rest in proportion to their length of service, the wage of which is paid in advance provided the conditions stated in the Law are met. It is necessary to pay the equivalent of the worker's wage if they had worked during the period of annual leave. Vacation payment is both a social and technical wage and it is one of the exceptions made in the principle of "wage in exchange for work". In short, it is a social wage not paid in exchange for work.

Wage Paid During the Period When Worker Uses Their Right to Refuse Work

The provision in Article 34 of Labor Law states that "the worker whose wage is not paid within twenty days after the payday due to a reason

except force majeure can refuse to fulfill their liability to perform a work...” There are mandatory regulations regarding the payment time of workers’ wages in Labor Law. The reason lying behind these provisions is providing the payment of unpaid wages which are regarded as maintenance receivable as they need to live on the wage income regularly and at close intervals (Güzel, 2005/2: 128. 9.CC, 10.02.2005, 2004/13259 E., 2005/3782 K Narmanlıoğlu 2010: 621.) . The main goal of the regulation in Article 34 of the Law is forcing an employer to pay wages to workers who use their right to refuse work. Then depriving the worker of wages during this period when a worker doesn’t work contradicts with the essence of provision even though it is not clearly stated in the regulation on the protection of wage that the worker will have the right to be paid their wage during the period that they don’t work. Supreme Court determined that the worker cannot demand to be paid for the period they refuse to work (9. CC. 10.02.2005, 2004/13259 E., 2005/3738 K.). Nevertheless, there is an opinion that the Supreme Court might assess this issue differently now as they have altered their judgments in favor of workers during recent years (Çil, 2010: 22).

Wage of Worker for the Period of Sick Leave

Whether there is an obligation to pay the worker for the period they don’t actually work or not is a controversial subject in doctrine. In our opinion, this issue should be assessed by considering whether the worker would receive the “benefit for temporary incapacity” from Social Security Institution during sick leave or not.

If a worker receives the benefit for temporary incapacity, the benefit for temporary incapacity shall be deducted from the monthly wages of workers pursuant to Article 48 of Labor Law (Supreme Court Assembly of Civil Chambers decided that there is no right of payment for sick leaves and only benefit for temporary incapacity shall be paid when law no. 1475 was in force. YHGK, 07.10.1998, 1998/9-638 E., 1998/682 K.; 9.HD, 20.04.2010, 2008/23521 E., 2010/11354 K). But this provision is not mandatory. The contrary might be agreed upon by parties (“...as it is stated that the benefit for temporary incapacity paid for sick leaves shall be integrated in the net wage...” 9 CC, 09.06.2003, 2003/9668 E., 2003/10485 K; “...separate provisions should be stipulated in personal labour contract or collective bargaining agreement for worker to claim payment...” 9:CC, 03.06.1997, 1997/7534 E., 1997/10656 K).

If the worker doesn’t receive the benefit for temporary incapacity, there is an opinion based on the obligatory provision of full payment should be made to the worker and the provision of payment made to female workers during maternity leave in accordance with Article 74/5 of Labor Law should be applied to all sick leaves (Eyrenci/Taşkent/Ulucan, 2006: 25). According

to another opinion, payment should not be claimed for sick leaves but only the workers who receive fixed wages would be paid their wages (INCE, 1998: 148).

Consequently, payment during sick and maternity leaves is the result of the concept of “social wage”.

4-Month Idle Time Wage

It is stated in Article 21, Paragraph 5 of Labor Law No. 4857 that worker is obliged to apply to the employer within 10 days following the notification of reemployment decision. Otherwise, termination shall have the consequences of a valid termination. The employer who doesn't take on the worker who applied for reemployment within 1 month shall be obliged to pay employment security compensation amounting the sum of wages for at least 4, at most 8 months and wages up to 4 months and other rights for idle time. When calculating the charge for idle time, period wages following the termination period shall be taken into consideration (*9.HD 20.11.2008, 2007/30092 E., 2008/31546 K*). Furthermore, monetary rights such as transportation fees, bonuses, fuel allowances shall be added to this charge. This is to say that the calculation should be made as if he worker is working during this period. But wages occurring in case they work such as overtime fee shall not be included (*9.HD, 18.11.2008, 2008/32727 E., 2008/31214 K*).

Therefore the amount of 4-month wage that the worker deserves following the reemployment lawsuit could be assessed within the concept of “social wage” which shall be paid to them even if they don't work.

Social Wage Arising from Contract

The conditions where workers deserve to be paid without working can arise from the law, as well as from the contract. For instance, worker and employer might agree on paying the worker in full for sick leaves in the individual Labor contract or in collective bargaining agreement. Or the parties can mutually agree on payment of wage for the period when the worker refuses to work in the contract.

Conclusion

It is regulated in Article 55 of Constitution and in Article 32 and contd. Articles of Labor Law that wage is the value of worker's Labor. Wage is a social fact with respect to public order. It as a mandatory element of the contract. Wage can be described as the amount paid to the worker in exchange for their service with the exception of situations when the workers are paid without working. Therefore it is possible to pay wages without working in situations arising from Law or contract. The wage paid in this situations are called “social wages”.

Social wage is a concept expressing the social quality of wages. This is to say that wages move away from economic reality and have a meaning based on human values due to this concept. Understanding of social wage requires the wage should provide a standard of living which befits the dignity of man. Therefore social wage which might be regarded as wages paid during weekend holidays, annual leave and alike regulated in law provide assurance to the worker without working.

References:

- Aktay, A. (2011), Nizamettin/ARICI, Kadir/KAPLAN, Emine; İş Hukuku (Labor Law), 4. Edition, Ankara.
- Akyiğit, E., (2007), İş Hukuku (Labor Law), Ankara.
- Akyiğit, E., (2000), Türk/Alman ve İsviçre Hukukunda Yıllık Ücretli İzin (Annual Paid Leave in Turkish/German and Swiss Law), Ankara.
- Antalya, G. (1987), Hizmet Akdinin Tanımı, Unsurları ve Hukuki Niteliği (Definition, Elements and Legal Characteristic of Service Contract), Yargıtay Magazine.
- Centel, T. (1988), İş Hukukunda Ücret (Wages in Labor Law), Turkish Maritime Union Publication, No:9, İstanbul.
- Çelik, N. (2006), İş Hukuku Dersleri (Labor Law Courses), İstanbul.
- ÇİL, Ş.(2010), İş Hukukunda İşçinin Ücreti (Worker's Wage in Labor Law), Ankara.
- Demircioğlu/ Centel, (2005), İş Hukuku (Labor Law), İstanbul.
- Esener, T. (1978), İş Hukuku (Labor Law).
- Eyrenci/Taşkent/Ulucan, (2006), Bireysel İş Hukuku (Individual Labor Law), İstanbul.
- Günay, C.İ. (2006), İş Kanunu Şerhi (Commentary on Labor Law), C.I, Ankara.
- Güzel, A. (2005/2), "İşçinin Ücretinin Ödenmemesi Nedeniyle İş görme Edimini Yerine Getirmekten Kaçınması ve Çalışmadığı Süre İçin Ücret Talep Edememesi (Worker's Avoiding to Fulfil the Action of Doing Their Work Due to Being Unpaid and Not Claiming Any Wage for the Period They Didn't Work", Judgement Review, Çalışma ve Toplum.
- İnce, E. (1988), Çalışma Hukuku (Labor Law), İstanbul.
- Mollamahmutoğlu, H. (2005), İş Hukuku (Labor Law), Ankara.
- Narmanlioğlu, Ü. (2010), "Kanuni Süresinde Ücreti Ödenmeyen İşçinin İş Görmekten Kaçınabilme Hakkı (imkanı) (Right to Avoid Working of the Worker Whose Wage is not paid within the Legal Period), Dokuz Eylül University Faculty of Law Magazine Volume: 12, Özel P.
- Narmanlioğlu, Ü. (1998), İş Hukuku (Labor Law), İzmir 1998, 3. Edition.
- Oğuzman, K. (1986), Hukuki Yönden İşçi İşveren İlişkileri (Employee-Employer Relationships in Terms of Law) , C.I, 4.B., İstanbul.

Oğuzman, K. “Zorlayıcı Sebebe Dayanarak Hizmet Akdinin Feshi (Termination of Labor Contract Due To Forced Causes)”, İHU, İK. md. 17, No: 10.

Reisoğlu, S. (1968), Hizmet Akdi (Labor Contract), Ankara.

Saymen, H. F. (1954), Türk İş Hukuku (Turkish Labor Law), İstanbul.

Süzek, S. (2015), İş Hukuku (Labor Law), 13. Bası.

Tunçomağ/Centel, (2005), İş Hukukunun Esasları (Basics of Labor Law), İstanbul.

Yuvalı, E.(2012), “İş Hukukunda Zorlayıcı Neden ve Zorunlu Neden Kavramları ile Bu Kavramların İş Sözleşmesi Üzerindeki Etkileri (Concepts of Forced Causes and Force Majeure and Impact of These Concepts on Labor Contract)”, Kamu-İş; C:12, S:3/2012.

Zevkliler, A. (2004), Borçlar Hukuku Özel Borç İlişkileri (Law of Obligations Special Debtor-Creditor Relationships), Ankara.

Shy Customers Vs Non Shy Customers: Who Does Love More Online Shopping?

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Abstract

Nowadays, almost every market has an intense competition environment. Naturally, in order to survive in such an environment, decision maker must understand accurately their customer wants and needs, even must generate individual solutions, not only massive. The way to understand customers is through determining the factors well that affect purchasing decision-making of customers. An emotion that can directly affect human behaviour such as shyness is a question mark on the frame of consumer behaviour, although purchasing decision-making process is examined with many different approaches. The aim of this study is to illuminate whether shyness has an effect on online purchasing decision-making process or not. In the literature, although a lot of studies have been done about shyness in different fields, a sufficient level of study was not encountered about shyness in the field of marketing. The fact that shyness has not been addressed in terms of marketing, especially on the internet, reveals the importance of this study.

Keywords: Shyness, Online Shopping, Online Purchasing Decision-Making Process

Introduction

Shyness is defined as "timid (sıkılğan)", "embarrassment (mahcubiyet)" by the Turkish Language Association (tdk.gov.tr, 2017). Meaning of "shyness" in the Cambridge Dictionary is explained as "not confident, especially about meeting or talking to new people." (dictionary.cambridge.org, 2016). According to Oxford Dictionary, shyness is expressed as "the feeling of being nervous or embarrassed about meeting and speaking to other people." Although there is no clear consensus about

the definition of shyness, English and Turkish meanings point out similar case. One of these definitions of shyness is that Buss (1980) made; “*shyness, in terms of one's reaction to being with strangers or casual acquaintances: tension, concern, feelings of awkwardness and discomfort, and both gaze aversion and inhibition of normally expected social behaviour.*” Besides, shyness is defined by many labels; behavioral inhibition, introversion, social inhibition, social reticence, social wariness, social anxiety, social withdrawal (Wolfe et al., 2014:266).

I.

Shyness has been studied mostly in universities in Turkey. Durmus (2007: 256-264) has studied how university students assess themselves in terms of their level of shyness and perceived personality traits. Durmus (2007) found that non-shy university students see themselves more positively than shy college students in this study. However, university students with high levels of shyness found themselves inadequate in terms of social skills and were aware of this condition. At the same time the students seem to be enthusiastic on the way out. According to Durmus (2007); the reason of shyness is that individual sees himself/herself as insufficient. Yuksel (2002: 53; 2005: 165) and Sahin and Gizir (2014: 82) have conducted separate studies on university students and have found that the most important predictor of shyness is self-esteem. In this context, there is a negative correlation between shyness and self-esteem. Additionally, Hamarta and Demirbas (2009: 245) have done a similar research on high school students and have reached the conclusion that self-esteem is an important predictor of shyness. Moreover, shy individuals are deeply concerned with the comments that are made by others, and therefore are more likely to need for approval.

Aliyev and Kalgi (2014: 67-68) have found that there is a negative relationship between self-esteem and shyness in the study that has been conducted on primary school students. In contrast to the above, it is clear that self-esteem is not an important predictor of shyness and the relationship between them is not meaningful.

Laghi et al. (2012: 51-56) determined that shy adolescents prefer to convey more negative emotions and experiences than non-shy adolescents on the internet. Eldeleklioglu and Vural Sunik (2013: 148) found that there was a positive relationship between shyness and internet addiction in the research that was conducted with ages between 15 and 18 at the state high school. Because of the research structure; it did not turn out which one is causing which one.

When we look at the relationship between demographic variables and shyness in the research; it seems that there is no significant relationship between gender and shyness in addition to between income and shyness. In

general, there is no significant difference between the shyness of men and women. Women are shyer than men only in two cases; first during interactions with authority holders; the other appears at time when they are worried about saying silly things to people they do not know very well (Crozier, 2005: 1954).

Methodology

In this study, Convenience Sampling was used as a sampling method and the data collecting was carried out from three different places in Turkey. The first leg of the research was held on 11st March 2016 at Forum Aydin, which is the largest and open-concept shopping mall in Aydin. The second leg was held in Adnan Menderes University, Nazilli Vocational School between 14th and 16th March 2016. And the third was on 3rd April 2016 in Denizli Teras Park Shopping Mall in Denizli.

Does shyness direct consumers to online shopping? Which demographic factors do have significant difference with shyness? All these questions led to the emergence of the research idea and the creation of the purpose of the research. In this direction, the determined hypotheses of the research are as follows:

H_A: There is a significant difference between gender and the level of shyness.

H_B: There is a significant difference between age of student and the level of shyness.

H_C: There is a significant difference between the level of income and the level of shyness.

H_D: There is a significant difference between the frequency of online purchasing and the level of shyness.

The required data for the research were collected from two provinces of Turkey, Aydin and Denizli, where the researchers reside (n = 189). It was paid attention that numbers of female and male were close to each other when the data were collected. The survey, the Shyness Scale that developed by Cheek (1990) and adapted to Turkish by Gungor (2016), was used to measure the level of shyness of the individuals. ANOVA and T-test analyses were used to test the hypotheses.

Table 1. Descriptive Statistics of Participants' Gender, Age and Income

Variables	Category	n	%
Gender	Female	88	46,8
	Male	100	53,2
Age	21 and under	96	50,8
	22 and over	93	49,2
Income	1000 and under	72	40,7
	1001- 2000 TL	53	29,9
	2001-3000 TL	23	13,0
	3001- 4000 TL	11	6,2
	4001-5000 TL	11	6,2
	5001 and over	7	4,0

TL: Turkish Currency

Descriptive statistics of participants' gender, age and monthly personal income are given in detail in Table 1 above. When Table 1 is examined in detail, it is seen that 100 (53.2%) participants are composed of males, 96 (50.8%) participants are from under the age of 21 and 72 (40.7%) participants have 1000 TL and below of monthly personal income.

Hypothesis tests

The first hypothesis is a test of the significant difference between gender and the level of shyness. According to the T-test result, the H_A hypothesis was accepted. As seen on the Table 2, the level of shyness of women among respondents is slightly higher than that of men.

Table 2. H_A Hypothesis Test

Gender	N	Mean	Std. Deviation	p	H_A
Female	88	1,9091	, 61842	0,027	Accepted
Male	100	1,7100	, 60794		

The second hypothesis is a test of the significant difference between the age of the student and the level of shyness. The H_B hypothesis was accepted according to the result of T-test. As seen on the Table 3, the level of shyness of under the age of 21 among respondents is slightly higher than that of over the age of 22.

Table 3. H_B Hypothesis Test

Age	N	Mean	Std. Deviation	p	H_B
21 and under 21	96	1,9271	, 60253	0,008	Accepted
22 and over 22	93	1,6882	, 62517		

The third hypothesis is a test of the significant difference between the level of income and the level of shyness. According to ANOVA result, H_C

hypothesis was accepted. As Table 4 shows, as the level of income increases, the level of shyness also decreases in general.

Table 4. H_C Hypothesis Test

Income	N	Mean	Std. Deviation	p	H _C
1000 and under	72	1,8889	,57053	0,019	Accepted
1001- 2000 TL	53	1,8491	,60116		
2001-3000 TL	23	1,7391	,68870		
3001- 4000 TL	11	1,3636	,50452		
4001-5000 TL	11	1,6364	,67420		
5001 and over	7	1,2857	,48795		
Total	177	1,7853	,61164		

The final and the main hypothesis of the research is a test of the significant difference between the level of shyness and the frequency of online purchasing. According to ANOVA result, H_D hypothesis was accepted. As Table 5 shows, as the level of shyness increases, the frequency of online purchasing also increases.

Table 5. H_D Hypothesis Test

Level of Shyness	N	Mean	Std. Deviation	Std. Error	p	H _D
Low	58	1.4759	.56918	.07474	0,000	Accepted
Middle	109	1,9982	.94536	.09055		
High	22	2.6727	1.05025	.22391		
Total	189	1,9164	,93034	,06767		

Conclusion

The impact of many demographic factors on shyness has been proven with this study. First of all, it was first found that women are slightly shy than men. There are some studies examining the level of shyness that between women and men in the literature. Also, Crozier (2005) stated that there is no big significant difference between the levels of shyness of men and women.

On the other hand, when we look at the relationship between shyness and age; it is found that the people at the age of 21 and under age group are slightly shy than the upper age group. Furthermore, as the level of shyness increases, the frequency of online purchasing also increases. Considering self-confidence is the most important predictor of shyness; a possible positive relationship between self-confidence and money would support this finding.

However, the most important finding of the research is that shy people tend to buy over the internet. In other words, in this research, it has

been found that as the level of shyness increases, the frequency of online purchasing increases.

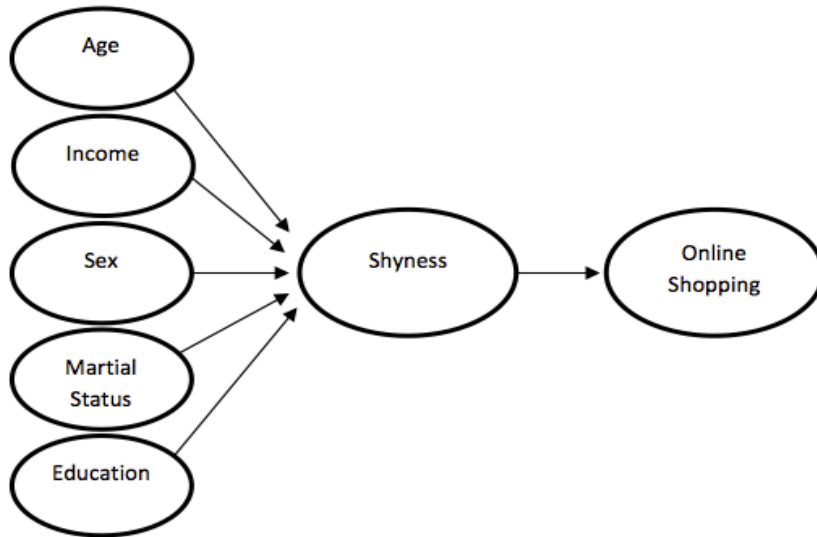


Figure 1. The Draft of Online - Shy Shopper Model

In fact, the variables that have been examined separately with shyness above can be held together with a model. The draft model is given in Figure 1 above as a result of this research. It will be useful that comparison of this model in different cultures in terms of psychographic segmentation in global marketing.

References:

- Aliyev R. ve Kalgı M. E. İlköğretim Öğrencilerinin Utangaçlık ve Benlik Saygısı Düzeylerini Etkileyen Faktörler. *Turkish Journal of Education*: 3(2), 2014. ^[1]_[SEP]
- Buss, A. H. Self-consciousness and social anxiety. San Francisco: Freeman: 1980. ^[1]_[SEP]
- Cheek, J. M., & Melchior, L. A. Shyness, self-esteem, and self-consciousness. In *Handbook of social and evaluation anxiety*: Springer US, pp. pp.47-82, 1990
- Crozier W. R. Measuring shyness: analysis of the Revised Cheek and Buss Shyness scale. *Personality and Individual Differences*: 38, pp.1947-1956, 2005. ^[1]_[SEP]
- Durmus E. Utangaç Olan ve Olmayan Öğrencilerin Algıları. Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi: 40 (1), pp.243-268, 2007. ^[1]_[SEP]
- Eldeleklioglu J. ve Vural M. Predictive Effects Of Academic Achievement, Internet Use Duration, Loneliness and Shyness on Internet Addiction.

- Hacettepe Üniversitesi Eğitim Fakültesi Dergisi: 28(1), pp.141-152, 2013. [L]
Gungor, A. Utangaçlık Ölçeğinin Geliştirilmesi Geçerlik ve Güvenilirlik
Çalışmaları. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 2(15), 2016.
- Hamarta E. ve Demirbas E. Lise Öğrencilerinin Utangaçlık ve Benlik
Saygılarının Fonksiyonel Olmayan Tutumlar Açısından İncelenmesi. Selçuk
Üniversitesi Sosyal Bilimler Enstitüsü Dergisi: (21), 239, 2013.
http://dictionary.cambridge.org/dictionary/turkish/shy_1?q=shyness
(16.02.2017)
- <http://www.oxforddictionaries.com/definition/learner/shyness> (16.02.2017)
- Laghi F., Schneider B. H., Vitoroulis I., Coplan R. J., Baiocco R., Amichai-
[L]
[SEP]Hamburger Y., Hudek N., Koszycki D., Miller S. ve Flament M. Knowing
when not to use the Internet: Shyness and adolescents' on-line and off-line
interactions with friends. *Computers in Human Behavior*: 29 (2013), pp.51–
57. 2012. [L]
[SEP]
- Sahin E. E. ve Gizir C. A. Üniversite Öğrencilerinde Utangaçlık: Benlik
Saygısı ve Kişilerarası Yetkinlik Değişkenlerinin Rolü. *Türk Psikolojik
Danışma ve Rehberlik Dergisi*: 5 (41), pp.75-88, 2014. [L]
[SEP]
- Türk Dil Kurumu,
[http://www.tdk.gov.tr/index.php?option=com_gts&arama=gts&guid=TDK.
GTS.58a56f90318158.67964532](http://www.tdk.gov.tr/index.php?option=com_gts&arama=gts&guid=TDK.GTS.58a56f90318158.67964532) (16.02.2017). [L]
[SEP]
- Wolfe C. D., Zhang J., Spoon J. K. and Bell M. A. A Longitudinal
Perspective On The Association Between Cognition And Temperamental
Shyness. *International Journal of Behavioral Development*: 38(3), pp.266-
276, 2014.
- Yuksel G. Türki Cumhuriyetleri Öğrencilerinin Utangaçlık Düzeylerini
Etkileyen Faktörler: Gazi Üniversitesi Örneği. *Bilim ve Kültür Dergisi*: (35),
pp.151- 172, 2005. [L]
[SEP]
- Yuksel G. Üniversite Öğrencilerinin Utangaçlık Düzeylerini Etkileyen
Faktörler. *Gazi Eğitim Fakültesi Dergisi*: 22(3), pp.37-57, 2002. [L]
[SEP]

Demand Uncertainty Reduces Market Power and Enhances Welfare

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Abstract

Classical welfare economics assumes that the demand function, or consumers' utility, is known with certainty. Probabilistic microeconomics generalizes it by maximizing expected utility, or by optimizing under a specific constraint. Existing research has provided only limited insight into the welfare effects of demand uncertainty, and that limited insight suggests welfare reduction as a result of demand uncertainty. In contrast with previous works, our paper does not prescribe the form of demand uncertainty, but rather derive it from individual consumers' choices. We then analyze monopolist optimization problem, first constrained by a "Safety-First" type condition imposed on the coefficient of variation, and then by considering risk-adjusted profit measure. Our results indicate that the Marshallian welfare measure, when compared with the deterministic model, increases with uncertainty of the demand function.

We point out that uncertainty characterizes markets that lie between the pure monopoly model, and perfect competition model. We believe that our model of demand uncertainty is a realistic one, very much like observed behavior of markets. Most importantly, our work suggests that transition from monopolistic market structure to competitive one may be explained better by demand uncertainty than by mere presence of competitors, as opposed to the instant appearance of competitive pricing in common textbook models.

Finally, we show how a demand can be efficiently estimated from simple consumer surveys (admitting its random structure).

Keywords: Demand uncertainty; welfare; market power

Introduction

Neither a pure monopoly nor a pure competition is a realistic description of markets for goods and services, which we observe in real life. One possible alternative to those two is the *monopolistic competition*, in which each producer holds a monopoly for a product, with those products being close substitutes. This phenomenon is indeed more common in the real world than in economics textbooks: consumers hardly ever face a choice between two (or more) identical products or services. Even two gas stations selling gasoline across the street from each other differentiate their products with brand names, additional services, or ethanol content.

Things in the real world are even more complicated. In reality, a consumer does not decide to make a purchase of a good or service in a purely deterministic fashion, but rather each individual purchase decision is quite uncertain, and affected by numerous factors, such as preferences of the consumer, the price, current mood or confidence of the consumer, availability of substitutes, etc. If the purchase decision were indeed fully determined by the purchase price, as the standard deterministic models suggest, then massive advertising campaigns developed by businesses would appear quite impractical. In reality, advertising, as well as sales, coupons, etc., work, as they all may affect the consumer in the moment of the purchase decision. They are only in the limited degree functioning as the source of information about price and quantity, and to a much larger extent they seek to affect the momentary lapse of judgment, or momentary depth of it, at the moment of purchase.

For the two idealized market models present in economics textbooks, monopoly and perfect competition, the above argument does not apply. In the pure monopoly model, the consumer faces a price given by the monopolist, and other factors are generally fully set by the aggregate market structure. The purchase decision is basically determined by the price. Paradoxically, perfect competition produces a similar “no uncertainty” outcome, as the price is effectively set by the relationship of the industry cost structure and the industry demand, and again each individual consumer’s purchase decision is basically determined by the price.

It is the “grey area” of markets between perfect competition and pure monopoly that result in greatest uncertainty of the consumers’ purchase decisions. Consumers can always change their minds and go to another seller, even if the price is higher there, because of receiving a slightly differentiated product that they are happier with, or just not feeling like buying now, but getting that magic shopping feeling later. They may be affected by advertising, reputation, promotions, etc.

Because of their welfare implications, monopolistic markets are generally perceived as socially undesirable, while perfectly competitive

markets are viewed as socially desirable. Realistic markets seem to be viewed as a messy “in-between” case. But even this perception begs a question: are realistic markets in equilibrium of their own, or do they evolve over time towards one of the two purely theoretical concepts? In this work, we create a model that seems to indicate that realistic models naturally converge towards competitive model as a result of uncertainty, and that uncertainty of demand may in fact result in increased welfare.

Modeling uncertainty of demand

Classical welfare economics is developed under the assumption of complete knowledge of the demand function. In reality, producers face great uncertainty in assessing consumers’ demand, even in a monopolistic or perfectly competitive market. The aggregate demand is downward sloping both in the case of monopolistic and competitive markets, and in the real business world, the actual demand is subject to both measurement uncertainty, and the uncertainty of the underlying functional relationship. The effects of randomness of demand has been studied, generally, with the objective of expected utility maximization, or under a “Safety-First” constraint, with some theoretically prescribed random structure of demand. Our work proposes what we believe to be a more practical alternative.

McCall (1971) provided an early survey of probabilistic microeconomics. He stated: “work is underway in reformulating the theory of the firm under conditions of uncertainty, in assessing the role of information in general equilibrium theory, in integrating uncertainty with welfare economics, and in designing measures of uncertainty possessing both theoretical appeal and practical importance.” While the use of expected utility maximization is most common, Hanoch and Levy (1969) provided examples of an situations with lower expected value and higher variance having higher expected utility, suggesting that maximization of expected utility may produce counterintuitive results. Brown G., Jr. & Johnson, M.B. (1969), and in a comment to their work, Visscher, M. L. (1973), discussed the effect of demand uncertainty in a limited case of linear demand, with their results indicating that uncertainty of demand may result in welfare improvement. In contrast to that work, Leland (1972) used the expected utility models to study the output (and by implication, welfare) effect of uncertainty on a monopolist facing a random demand. In particular, all of Leland’s results indicate that uncertainty cause reduction in monopolist’s output. Leland (1972) nevertheless concluded that welfare effects of models studied by him remain unclear. Dana (1999) analyzed firms facing uncertain demand under constraints of costly capacity and prices set in advance, and concluded that such firms will sell their output at multiple prices, i.e., will utilize price discrimination. Equilibrium price dispersion with homogeneous

goods was first described by Prescott (1975) and developed more formally by Eden (1990). Unlike the approaches of Dana (1999), Prescott (1975) and Eden (1990), our model precludes price discrimination and assumes uniform pricing. We also do not prescribe stochastic demand structure, but rather derive it from consumers' preferences. Also, in contrast to the results of Day, Aigner and Smith (1971), our model suggests that demand uncertainty will not produce safety margins in pricing, but rather lead to lower prices.

Roy (1952) provided an investment perspective on an alternative optimization approach, where the maximization of profit, or utility of profit, is constrained by the condition that the losses cannot exceed certain level with prescribed probability. This approach has been given a general name of *Safety-First*. Haim and Sarnat (1972) point out that Roy's *Safety-First* methodology can be reduced to the expected utility approach. Day, Aigner and Smith (1971) review *Safety-First*, in the form of three rules for a profit-maximizing monopolist. They find that under *Strict Safety-First*, where the risk condition is binding for optimization, output exceeds the output under the other two, softer forms of *Safety-First*. Day, Morley and Smith (1974) argue that a model in which the company's financial position affects its investment opportunities may provide an explanation as to why risk constraints are important in a monopolist's pricing decision.

We believe that our approach provides an alternative to the above models. We propose that the random demand can be derived from individual consumers' choices, and that the optimization can be either performed with respect to expected utility, or constrained by a binding condition on the coefficient of variation of demand (and, equivalently, of company's profit). The resulting model shows that demand uncertainty actually expands output, thus providing potential for welfare enhancement. An additional bonus of our methodology is a new demand derivation procedure that can be used in practice for estimation of the demand function as well as of the marginal utility of the clients through simply designed consumer surveys.

A new model

As the existing literature indicates, demand uncertainty can be modeled in many ways. We propose a new model for it. We assume that the firm is a monopolist facing random demand, i.e., for every price, the quantity demanded is a random variable $Q(p)$, with $E(Q(p))$ denoted by $q(p)$ and $\text{Var}(Q(p))$ denoted by $v^2(p)$. Mathematically, this means that the demand function is a stochastic process $\{Q(p)\}_{p \geq 0}$. In our model, the demand is derived as a sum of individual Bernoulli Trials: decisions about purchase. Each purchase decision can be viewed as a comparison of the externally given price with individual's preference for the item purchased, or as a utility

comparison. In a standard additive utility model, if one alternative is a *numeraire* good and the utility of the other alternative, a good or service purchased, is $U(q)$, where q is the quantity, the purchase decision is made if marginal utility $\frac{dU}{dq}$ exceeds the price of additional item purchased. This decision is equivalent to comparing the reservation price, a random variable in our model, to the market price p . We propose that either the marginal utility or the reservation price can, and should be, treated as a random variable, to properly account for the uncertainty of each purchase by an individual consumer. This uncertainty has been only marginally acknowledged in theoretical economic literature, while it is overwhelmingly acknowledged by the massive advertisement expenditures of businesses, which perceive consumers' preferences as uncertain and, most importantly, changeable.

Consider a firm that has N potential customers in a certain region. If this firm lowers its price, not only will more consumers from its region purchase the firm's product, but also consumers from other regions may arrive. In our model, we will therefore assume that N is a decreasing function of p . Let us note that we do not assume that the N consumers all purchase the product, but rather that they all have some probability of purchasing it, i.e., are potential customers.

So let us assume that there are $N(p)$ independent potential consumers in the market, and that each of them buys the product under consideration independently with probability $\theta(p)$, where $0 \leq \theta(p) \leq 1$, a function of p , with the following properties: $\theta(0) = 1$, $\lim_{p \rightarrow \infty} \theta(p) = 0$, and $\theta(p)$ is strictly decreasing. This means effectively that each consumer's purchase is an independent Bernoulli Trial (Fabian and Hannan, 1985). Under these assumptions, the total demand in time horizon T , given a price p , is a random variable $Q(p)$ with a distribution described by:

$$\Pr(Q = k) = \binom{N(p)}{k} (\theta(p))^k (1 - \theta(p))^{N-k}$$

for $k = 0, 1, \dots, N(p)$. Then $q(p) = E(Q(p)) = N(p)\theta(p)$ is the expected value of the output, and its standard deviation is

$$v(p) = \sqrt{N(p)\theta(p)(1 - \theta(p))}.$$

The firm serving random demand cannot maximize profit without regard to uncertainty of the demand. One possible approach, most commonly used, is to decrease the expected profit by some measure of risk. Another

form of risk-adjustment is a “Safety-First”-type condition. We will begin with that second approach.

Safety-First Approach. The objective is to maximize expected profit while controlling risk, in a given time horizon T . The overall uncertainty may increase because of an increase in the number of potential customers as well as increased uncertainty of individual purchase. We will analyze risk per unit purchased. What is then a rational profit strategy? Assume for simplicity that there are no fixed costs, and the marginal cost is constant and equal to c . The strategy we propose is:

$$\begin{aligned} & \text{Maximize} && E(Q(p)(p - c)), \\ & \text{subject to} && \frac{v(p)}{q(p)} \leq \alpha. \end{aligned} \quad (1)$$

The quantity maximized can be also written as $(p - c)q(p)$. The constraint states that standard deviation of price per quantity unit (i.e., coefficient of variation of demand or, equivalently, of profit) is bounded by a certain parameter α . This is a form of a strict Safety-First condition, although it is somewhat different than the one used by Day, Aigner and Smith (1971).

We will now derive a more explicit formulation of the maximization problem (1). The expected profit, $\Pi(p)$, is given by

$$\Pi(p) = N(p)(p - c)\theta(p).$$

The optimization problem becomes:

$$\begin{aligned} & \text{Maximize} && N(p)(p - c)\theta(p), \\ & \text{subject to} && \frac{1}{\sqrt{N(p)}} \sqrt{\frac{1 - \theta(p)}{\theta(p)}} \leq \alpha. \end{aligned}$$

Since the function $\theta(p)$ is strictly decreasing, the constraint can be also written as

$$p \leq \theta^{-1} \left(\frac{1}{1 + N(p)\alpha^2} \right). \quad (2)$$

Note that the inverse function θ^{-1} will also be strictly decreasing. To avoid a trivial situation, we assume also that c satisfies (2) (otherwise the set of admissible prices would be empty).

The producer’s optimization problem, as stated above, has some interesting properties. First, as the number of potential customers approaches infinity, the expression $\frac{1}{1 + N(p)\alpha^2}$ approaches zero, and the constraint condition is naturally satisfied. Thus for larger potential markets, we can

expect the constraint (2) to be more easily met. Furthermore, since θ and N are decreasing with p , reducing p will increase the firm's chance of meeting the risk constraint (2), even if the optimal price is not known to the firm. On the other hand, if the optimal price without risk constraint is expected to be high, then (2) may not be satisfied at that high price level. This means that a product with a relatively high expected profit per unit (in relation to the size of the market), will be sold below the price that would be optimal in the absence of risk, if the risk constraint is imposed and is binding.

Risk-Adjusted Profit Approach. We will now present an alternative optimization approach. We propose a *risk-adjusted profit* measure, defined as:

$$\Pi_R(p) = \Pi(p) - \gamma \cdot N(p)\theta(p)(p-c)g(p) = \Pi(p)\theta(p)(p-c) \cdot (1 - \gamma g(p))$$

Here, γ is a coefficient of risk-aversion, and g is a measure of risk in demand uncertainty per unit of expected risk. We will assume that g is a differentiable and strictly increasing function on $(0, \infty)$. For technical reasons we will also assume that N and θ are differentiable functions. For example, if we measure the risk of profit by the standard deviation of the profit, then

$$g(p) = \sqrt{\frac{1 - \theta(p)}{N(p)\theta(p)}}$$

Since N is decreasing and θ is strictly decreasing in p , we conclude that so defined g is strictly increasing. We assume also that γ is such that $1 - \gamma g(p) \geq 0$ for some $p > c$ (otherwise the risk adjusted profit could not be positive for any $p \geq c$).

The above models proposed here assume homogeneity of consumers. But our methodology can naturally be extended through aggregation of homogeneous submarkets to a heterogeneous market.

Output and welfare implications for a Safety-First Model

Assume that the optimal price calculated in the absence of risk, without the risk controlling constraint (2), exists and denote it by p^* . A key assertion of this section is

If $p^* > \theta^{-1}\left(\frac{1}{1 + N\alpha^2}\right)$ then the optimal choice might be either the solution to the equation $\theta(p) \cdot (1 + N(p) \cdot \alpha^2) = 1$, denoted by p_0 , or a local maximum of $N(p)(p-c)\theta(p)$ on the interval $[0, p_0]$. In either case, risk considerations

by the producer result in a lower price and higher output to the consumer, thus expanding welfare.

The proof is elementary so we omit it. Consider an application of this model to a producer creating a new market through introduction of a new technology. Such a producer is generally a natural monopolist, yet faces great uncertainty of demand. Moreover, in this case, the potential market size N may be small, and, as a result, risk control condition may be difficult to satisfy. Our analysis indicates that utilization of risk management in their profit maximization may lead to lower prices and greater welfare. This model can provide an explanation for pricing strategies of Internet and technology startups, which, especially during the early internet shopping boom in the late 1990s offered deals that seemed too good to be true, but were true nevertheless, unfortunately also resulting in a subsequent bust of many of those firms.

Our model also provides an additional rationale for a different market design: a market created by dividing a monopolist into several smaller companies. Such “trust-busting” may expand welfare even if the resulting companies retain some degree of market power, as the resulting smaller companies will face greater uncertainty of demand.

Risk-adjusted profit analysis and welfare implications

Let us denote by p^* the price such that it minimizes the profit Π , not adjusted for risk (this means that the profit is calculated deterministically, taking the expected value of demand as the deterministic demand). We will now state the key assertion of this section:

Assume that Π has a unique local and global maximum at $p^ > c$. Then the price for which the risk – adjusted profit measure Π_R reaches maximum, is lower than the price p^* . More specifically, for a certain range of prices, all less than p^* , producer facing demand uncertainty enjoys higher expected risk-adjusted profit than for the previously optimal price p^* . Moreover, increasing the price p above p^* , provided $\Pi_R(p) \geq 0$, always (not merely in a certain range of prices near p^*) decreases the expected risk-adjusted profit.*

We will now prove this assertion. By assumption, there is \bar{p} (possibly $+\infty$) such that $\Pi_R(p) \geq 0$ for all $p \in [c, \bar{p})$. If $p^* \notin [c, \bar{p})$, the assertion trivially holds. So let us consider the case $p^* < \bar{p}$. Under the assumptions specified, the risk-adjusted profit is of the form

$$\Pi_R(p) = N(p)\theta(p)(p-c) \cdot (1-\gamma g(p)).$$

Its derivative is

$$\frac{d}{dp} \Pi_R(p) = \frac{d(N(p)\theta(p)(p-c))}{dp} \cdot (1 - \gamma g(p)) - \gamma N(p)\theta(p)(p-c)g'(p).$$

As the maximum of non-risk-adjusted profit $\Pi(p)$ at \mathbf{p}^* is unique, local and global, for every $p > p^*$, $\frac{d}{dp} \Pi_R(p) < 0$ if $g(p) \leq \frac{1}{\gamma}$. Hence the bigger the price (as long as it is above \mathbf{p}^* and not bigger than \bar{p}), the smaller the risk-adjusted profit. Furthermore, as $\frac{d}{dp} \Pi_R(p^*) < 0$ and $\Pi_R(c) = 0$, there is a price \mathbf{p}_R such that Π_R attains a global maximum at \mathbf{p}_R , with $p_R < p^*$.

The key conclusion of the above assertion is that if profit maximization is performed by considering a risk-adjusted profit measure, the result is lower prices to consumers and an increase in the Marshallian welfare measure. Furthermore, we should note that the standard comparison between a monopolistic and competitive market models gives competition as the reason that a producer must lower prices from the level of a profit-maximizing monopoly price. Our model indicates that even a pure monopolist, when faced with the risk of demand uncertainty, is likely to respond with lower prices and sacrifice of some level of previously captured profits. Furthermore, demand uncertainty results in an increase of overall welfare, due to increase in output. One could therefore venture a hypothesis that demand uncertainty is the actual force behind a transition from a monopolistic market structure to a competitive one. This hypothesis is supported by so common among monopolists desire to lock-in their markets, to assure a customer base, as the resulting reduction in demand uncertainty benefits them at the expense of the consumers.

Estimating the random demand

We will now present an efficient procedure for estimation of demand under our model. In order to estimate the function $\theta(p)$, consider a random sample X_1, X_2, \dots, X_n from a probability distribution defined by the condition $\Pr(X \geq p) = \theta(p)$. The random variable X is the consumer's reservation price. In order to produce such a random sample in practice, we can collect data by asking the consumers the following question:

- What is the highest price you would be willing to pay for the said good (or service)?

A simple estimator for $\theta(p)$ is then $\theta_n(p) = \frac{1}{n} \sum_{i=1}^n I_{[p, +\infty)}(X_i)$, where

$I_{[p, +\infty)}$ is the indicator function. We have:

(i) $\limsup_{n \rightarrow \infty} \sup_{p \geq 0} |\theta_n(p) - \theta(p)| = 0$ with probability 1, (this follows from

Glivenko-Cantelli Theorem, see Fabian and Hannan, 1985).

(ii) $E(\theta_n(p)) = \theta(p)$,

(iii) $\text{Var}(\theta_n(p)) = \frac{1}{n} \theta(p)(1 - \theta(p))$.

It is also possible to replace the estimator θ_n with a smoothed version:

$$\hat{\theta}_n(p) = \frac{1}{n} \sum_{i=1}^n K\left(\frac{X_i - p}{h}\right)$$

where $K(\cdot)$ is a differentiable increasing function of a real variable (called a *kernel*), and h is a smoothing parameter depending on n .

Note also that maximizing $N(p)(p - c)\theta(p)$ subject to the constraint (2) (the Safety-First model case) splits into the following sub-problems:

First, estimate N taking into account the answers to the question A, for example:

$$\hat{N}(p) = \frac{\text{Number of consumers with } X_i \geq p}{n}. \text{ (Total Population Size)}$$

$$\text{Calculate } \hat{\theta}_n(p) = \frac{1}{n} \sum_{i=1}^n K\left(\frac{X_i - p}{h}\right),$$

$$\text{Establish the function } p \rightarrow \hat{N}(p)(p - c)\hat{\theta}_n(p),$$

Find the argument \hat{p}_n , which maximizes $\hat{N}(p)(p - c)\hat{\theta}_n(p)$ subject to

$$\text{the constraint } \hat{\theta}_n(p) \geq \frac{1}{1 + \hat{N}(p)\alpha^2}.$$

The following convergences (almost surely, i.e., with probability 1) can be shown:

$$\lim_{n \rightarrow \infty} \hat{p}_n = p$$

$$\lim_{n \rightarrow \infty} \hat{N}(p) = N(p)$$

$$\lim_{n \rightarrow \infty} \hat{N}(p)(\hat{p}_n - c)\hat{\theta}_n(\hat{p}_n) = \max_{\theta(p) \geq \frac{1}{1 - \hat{N}(p)\alpha^2}} (p - c)\theta(p)$$

under mild assumptions (see Fabian and Hannan, 1985). Similar results can be obtained for the case of risk adjusted profit measure.

Let us note that the procedure provided here by us is a relatively simple one that can be performed with relatively small quantitative power. This stands in stark contrast with existing econometric approaches (e.g., Knittel and Metaxoglou, 2014, or Blundell, Horowitz, and Parey, 2013). In the following section, we illustrate this procedure with an empirical experiment, in which we derived an estimate of a demand function for a service of online courses preparing for professional actuarial examinations.

Empirical experiment

In order to illustrate this methodology, we have performed an experiment aimed at estimating demand by students at Illinois State University for intensive review seminars preparing them for the first four actuarial examinations (professional examinations offered by the Society of Actuaries and the Casualty Actuarial Society in North America). Students were asked the question: “What would be the highest price you are willing to pay for a seminar?” separately for the first four actuarial examinations. While their responses were anonymous, they had to log in using their unique university ID, and therefore multiple entries from one person were prevented. 47 students participated. We were able to produce estimates for demands shown in the graphs below. The graphs give the probability of purchase for a given level of price, as estimated in the experiment. The students provided their responses in an online survey, with all appropriate procedures for working with human subjects secured, and with participants’ anonymity assured.

The graphs are what in probability theory would be called the survival function: For every number on the horizontal axis the value given is the probability of participants being willing to pay that price or higher. This gives us the function $\Pr(X \geq p) = \theta(p)$. This, in turn, allows us to create an empirical estimate of the demand function.

Figure 1: Estimate for the seminar for the first actuarial examination

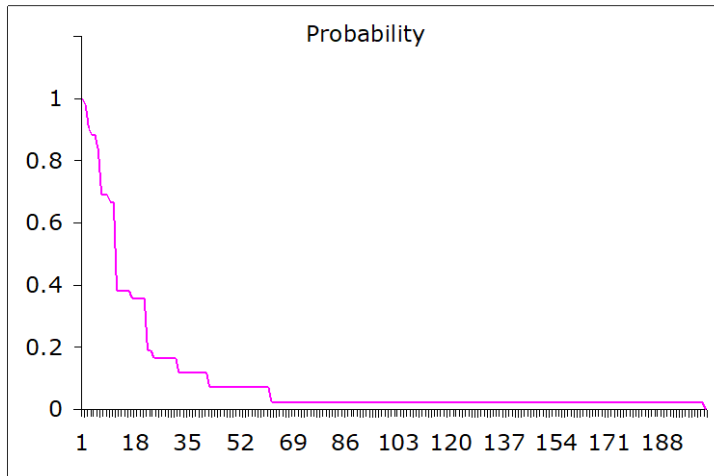


Figure 2: Estimate for the seminar for the second actuarial examination

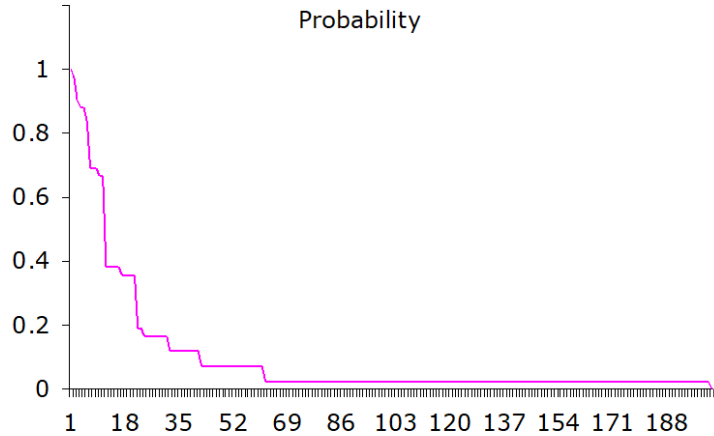


Figure 3: Estimate for the seminar for the third actuarial examination

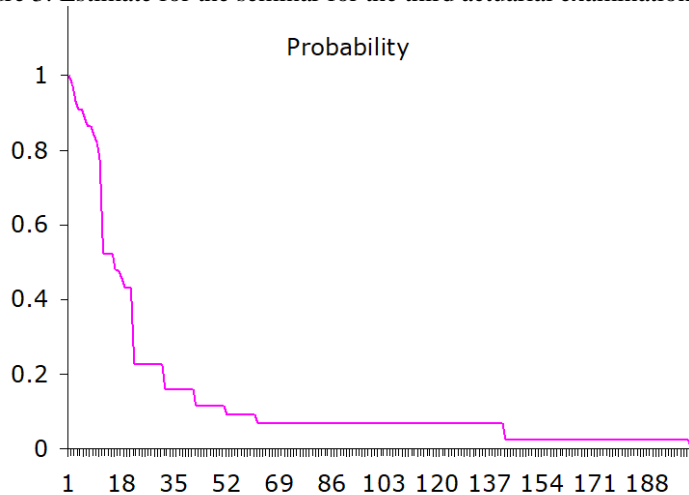
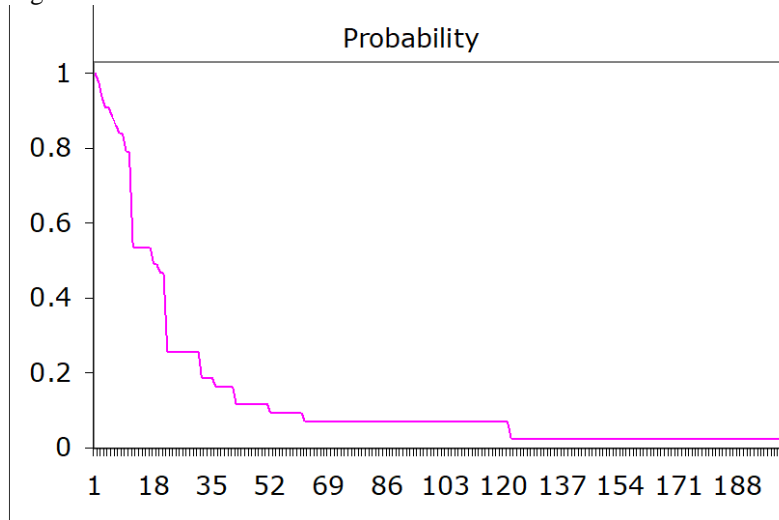


Figure 4: Estimate for the seminar for the fourth actuarial examination



Conclusion

Our model indicates that a monopolist facing the risk of demand uncertainty will respond with lower prices and sacrifice some level of profits available in absence of such uncertainty. Furthermore, demand uncertainty results in an increase of overall welfare, due to increase in output. One could therefore venture a hypothesis that demand uncertainty is the actual force behind a transition from a monopolistic market structure to a competitive one. This hypothesis is supported by so common among monopolists desire to lock-in their markets, to assure a customer base, as the resulting reduction in demand uncertainty benefits them at the expense of the consumers. On the other hand, a monopolist facing uncertain demand effectively moves towards behaving more as a firm existing in a competitive market.

Our model provides a rational explanation for lowering price as an optimal strategy for some firms facing uncertain demand. It can be argued that such has been the behavior of major US-based airlines, which do face great amount of uncertainty of demand, and often offer mysteriously low prices and make every attempt to fly full airplanes, while European carriers, historically facing more predictable demand, used to be often content with fewer passengers. Of course that historical structure of European air travel market has been dramatically changed with the strong entrance of low-fare carriers, such as Ryanair, causing increased uncertainty of demand and lower prices. Borenstein and Rose (1994) provide an insight into the uncertainty of demand in the U.S. airline industry, and model it via price discrimination, obtaining results consistent with our model: greater price uncertainty occurs on routes with more competition or lower flight density.

Furthermore, we show that a random demand function can be derived from individual consumers' purchase decisions, through simple consumer surveys. This survey methodology offers a simple and realistic methodology for immediate application of our approach in marketing approaches of businesses dealing with uncertainty of demand.

References:

- Arrow, K. (1963). Uncertainty and the Welfare Economics of Medical Care. *American Economic Review*, 53(5), 941-973. JSTOR 1812044.
- Blundell, R., Horowitz, J., & Patey M. (2013). Nonparametric estimation of a heterogeneous demand function under the Slutsky inequality restriction, *CENMAP Working Paper*, Centre for Microdata Methods and Practice, No. CWP54/13, <http://dx.doi.org/10.1920/wp.cem.2013.5413>.
- Brown G., Jr. & Johnson, M.B. (1969). Public Utility Pricing and Output Under Risk. *American Economic Review*, 59, 119-128.
- Borenstein, S. & Rose N.L.(1994). Competition and Price Dispersion in the U.S. Airline Industry. *Journal of Political Economy*, 102(4), 653-683. Stable URL: <http://www.jstor.org/stable/2138760>.
- Dana, J. D., Jr. (1999) Equilibrium Price Dispersion Under Demand Uncertainty: The Rules of Costly Capacity and Market Structure. *RAND Journal of Economics*, 30(4), 632-660.
- Day, R.H., Aigner, D.J., & Smith, K.E. (1971), "Safety Margins and Profit Maximization in the Theory of the Firm. *Journal of Political Economy*, 79(6), 1293-1301.
- Day, R.H., Morley S. & Smith K.R. (1974). Myopic Optimizing and Rules of Thumb in Micro-Model of Industrial Growth. *American Economic Review*, 64(1), 11-23.
- Eden, B. (1990). Marginal Cost Pricing When Spot Markets Are Complete. *Journal of Political Economy*, 98(6), 1293-1306.
- Fabian, V. & Hannan, J. (1985). *Introduction to Probability and Mathematical Statistics*. New York, NY: Wiley.
- Hanoch, G. & Levy, H. (1969). The Efficiency Analysis of Choices Involving Risk. *Review of Economic Studies*, 36(3)(107), 335-346.
- Knittel, C.R. and Metaxoglou K. (2014). Estimation of Random-Coefficient Demand Models: Two Empiricists' Perspective. *Review of Economics and Statistics*, 96(1), 34-59.
- Leland, H.E. (1972). Theory of the Firm Facing Uncertain Demand. *American Economic Review*, 62, 278-291.
- Levy, H. & Sarnat, M.(1972). Safety First – An Expected Utility Principle. *Journal of Financial and Quantitative Analysis*, 7(3), 1829-1834.
- McCall, J.J. (1971). Probabilistic Microeconomics. *The Bell Journal of Economics and Management Science*, 2, 403-433.

- Petrakis, S. (1976). Rate of Return Regulation of a Monopoly Firm with Random Demand. *International Economic Review*, 17(1), 149-162.
- Prescott, E. C. (1976). Efficiency of the Natural Rate. *Journal of Political Economy*, 83, 1229-1236.
- Roy, A. (1952). Safety First and the Holding of Assets. *Econometrica* 20(3), 431-449.
- Smith, K. R. (1969). The Effect of Uncertainty on Monopoly Price, Capital Stock and Utilization of Capital. *Journal of Economic Theory*, I, 48-59.
- Visscher, M. L. (1973). Welfare-Maximizing Price and Output with Stochastic Demand: Comment. *American Economic Review*, 63(1), 224-229.

Export Performance: An Analytical Focus on the Study of the Empirical Contributions of this Variable

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Abstract

There is not a unique way of measuring the performance variable as several criteria can be followed to do so. Hence, we can find objective measures (fundamentally economic-financial) and subjective measures (for example, satisfaction measures). There are many investigations which analyse this variable globally. However, this work is centred on a specific part: how an exporting activity or export performance is measured. To do so, we have carried out an analytical review of the main empirical contributions over the period 1998-2013. In this way, we have found out which is the measure, or which are the measures, of this variable that are most accepted. Furthermore, knowing the determinants of export performance will help firms' managers to direct their efforts towards those factors which foster the obtaining of good results.

Keywords: Export performance, determinants, measurement, meta-analysis

Introduction

Export Performance has been (and continues being) a variable of tremendous interest in the literature of international businesses (Hariharan, 2016). There is a consensus regarding success in domestic markets not guaranteeing the obtaining of good results in foreign markets, as these require the development of specific strategies to be able to be successful (Zou and Stan, 1998). Diamantopoulos (1999) warns that export performance represents the results attained from international operations carried out under different environmental and organisational conditions, adding that a part of the research related to internationalisation has sought to

identify the organisational, management, environmental and strategic factors which influence export performance¹⁸.

An important question in the study of this variable is its conceptualisation, as well as its functioning as a dependent variable (Morgan et al., 2012). Thus, Matthyssens and Pauwels (1996) recognise that a reliable and valid measure of export performance is critical when the determinants of success in international businesses are being analysed. However, there has been scant consensus in the literature concerning which are the most important and appropriate measures of export performance, the contributions on determinants of export performance being fragmented and different conclusions at times been drawn (Zou et al., 1998, among others). This therefore helps to argue the present work. We have begun by reviewing the literature on export performance, where the determinants and the way in which they have been measured have been highlighted. We then focus on the methodology of meta-analysis. Afterwards, we have extracted from the study period the results about the variable's determinants and measurement. In the last section, we present the study's conclusions, limitations and future studies which may be carried out.

Review OF THE LITERATURE ON EXPORT PERFORMANCE

The lack of consensus in the literature and the scarcity of relevant theories which clearly explain the functioning of this variable may be due to a series of endemic problems which characterise research on internationalisation (Axinn, 1994). There is a concurrence in the literature as to the factors which determine export performance being diverse, some direct and others indirect (Leonidou et al., 2002). Nevertheless, to have a consensus about all the research which exists concerning this variable we must taken into account that:

- first, most studies have been isolated and uncoordinated attempts aiming to investigate and test only some of the factors which influence export performance, and not all of them jointly;
- second, the research efforts have taken place at different moments in time and in distinct geographical and sectoral environments, which may lead to possible exogenous effects in the findings; and
- third, the different research designs carried out have led to the use of distinct definitions, terminologies and functions of the variables, giving rise to inconsistency in the conclusions.

¹⁸ Among others, some of the relevant studies are those of: Bilkey (1978), Madsen (1987), Aaby and Slater (1989), Zou and Stan (1998), Diamantopoulos (1999), Leonidou et al. (2002) and Dhanaraj and Beamish (2003).

Thus, in the last 30 years, the literature has revealed different descriptive models related with the behaviour developed in the internationalisation process and with performance. As the evolution is clearly marked, this research can be divided by decades (Dhanaraj and Beamish, 2003).

But in spite of this progress, the literature on export performance remains plagued with controversies (Zou and Stan, 1998). There are different works in the literature which do not share the same view regarding how the different factors affect export performance. This influence on the variable studied is found to be direct or indirect.

Referring to the **determinants of exporting activity**, there is not unanimity among the different authors about what the factors are and their degree of relative importance, which condition the result of activity abroad (Zou et al., 1998; Nazar and Shaikh, 2011; Mysen, 2013). This is due to the high fragmentation and scarcity of general conclusions in this study field (Aaby and Slater, 1989; Cavusgil and Zou, 1994). From this perspective, it is very complex to extract business behaviour guidelines which orientate the carrying out of operations of foreign business and the elaboration of a policy framework that underpins the decision-making process.

Table 1 presents a summary of the contributions about variables associated with the export activity. Therefore, to identify these determinants has become one of the aims of this part of the investigation. Numerous empirical works have been done to identify the factors responsible for the success of activities abroad.

Table 1: Determinants of the organisation's exporting result

Author/s	Determinants of the organisation's exporting results	
Gomez-Mejia (1988)	Internal factors	External factors
Domínguez and Sequeiro (1993)	Marketing strategy Management commitment and motivation	Business characteristics Business skills.
Evangelista (1994)	Controllable factors	Uncontrollable factors
Katsikeas, Deng and Wortzel (1997)	Firm specific factors	Marketing strategies External factors
Zou, Taylor and Osland (1998)	Business characteristics Product characteristics Market characteristics	Sector characteristics Marketing strategy
Leonidou, Katsikeas and Samiee (2002)	Manager variables Organisational variables Marketing-mix variables	Environmental variables Target market variables

Source: Own elaboration (from Leonidou et al., 2002)

We note that the determinants of export performance can be classified as both external and internal factors, as corroborated by different theoretical bases (Gómez-Mejía, 1988 and Zou et al., 1998). Thus,

specifically, the internal determinants are justified by the theory based on resources and capabilities, while the external determinants are supported by the industrial organisation theory. The first of these theories considers that the main determinants of the relation between a firm's strategy and its performance are the organisational internal resources. On the contrary, the industrial organisation theory argues that external factors determine the firm's strategy, which, in turn decides its economic performance. According to this theory, the firm's external factors and internationalisation strategy are the first determinants of export performance.

Regarding the **measuring of this variable**, this question has been broadly dealt with in the literature both for international businesses and to know the results of any organisation at a national level. In the international area, the great majority of the literature has centred on the results obtained through one of the expansion modes, such as exporting. Export performance has had a relevant literary procedure. Due to the many works which measure both export performance and its determinants, significant efforts have been made to bring together and unify the distinct contributions on this topic. Either through the technique of meta-analysis or any other way, different authors have compiled the literature on export performance (among others: Madsen, 1987; Aaby and Slater, 1989; Chetty and Hamilton, 1993; Zou and Stan, 1998; Katsikeas, Leonidou and Morgan, 2000; Leonidou, Katsikeas and Samiee, 2002; ; Nazar and Shaikh, 2011; Singh and Mahmmod, 2013).

Table 2: Categories used in the measuring of the result of the export activity

Category	Indicators included in each category
Objective evaluation of the financial content	
Measures associated with sales	Export sales . Export disposition or intensity. Export sales per employee. Export sales per product. Export sales of new products. Contribution of exports to domestic sales. Contribution of exports to profit. Market share associated with the export activity.
Measures associated with profitability	Profitability of the export activity. Export profitability versus domestic profitability. Return on investments (ROI). Return on foreign sales (ROS).
Measures associated with growth	Growth of foreign sales. Growth of the export disposition or intensity. Growth of the export sales of new products. Growth of the profitability of exports. Growth of the contribution of exports to profit.
Subjective evaluation of non-financial content	

Perceived success	Any measure which shows the success perceived by the firm's management in the development of its export activity.
Measured related with satisfaction	Any measure which shows managerial satisfaction associated with the development of the export activity.
Measures related with achieving aims	Measures associated with the achievement of aims (economic, strategic, etc.) on a given time horizon.
Other measures	
Composite scales	This category gathers any measure not included in the previous categories, as well as those cases in which the export result implies a multidimensional evaluation and it was not feasible to individualise the effects of each particular measure.

Source: Leonidou et al., 2002

The results of the study of performance are fragmented. This means that there is a series of problems in order to define it. Problems such as the lack of consensus in the main dimensions of measuring it, or disagreements as to how the dimensions of performance should be measured tend to be found in works on this topic.

This work is going to use an analytical focus to gather the main conclusions of the empirical studies on the measurement and determinants of performance in international operations, either through exports, joint ventures, or any other mode of entering foreign markets.

Methodology of export performance analysis: an analytical approach

To establish both the measurement of the export performance variable and its determinants, we are going to follow an analytical approach. That is to say, the review of the literature will be done through the meta-analysis technique. This is defined as *“a methodological proposal for the integration of empirical research on the same topic, characterized by the application of the same regulations of scientific rigor demanded for primary studies and, therefore, based on the application of statistical methods”* (Rosenthal, 1991; Cooper and Hedges, 1994). Therefore, and as Sánchez-Meca (1999)¹⁹ indicates, in a meta-analysis *“the data are the results of the studies, conveniently transformed into a common metric which enables their*

¹⁹ Sánchez-Meca, J. (1999): “Metaanálisis para la Investigación Científica”, in Sarabia Sánchez, F.J. (1999): “Construcción de las Escalas de Medida”, in Sarabia Sánchez, F.J. (1999): “Metodología para la Investigación en Marketing y Dirección de Empresas”. Ediciones Pirámide, Madrid

integration and quantitative comparison, unlike what occurs with primary studies”.

Following the work of the latter author, the methodology has been applied for almost four decades and the first works where it was utilised in social sciences were those of Rosenthal (1976) and Smith and Glass (1977).

Bearing in mind that not all the studies which consider the meta-analysis technique have similar characteristics with respect to size, statistical techniques used, and so on, and to not carry out exclusively a narrative approach to the literature, it is appropriate to employ the procedure proposed by Zou and Stan (1998). The solution consists in using a hybrid between this meta-analysis technique and a narrative description in such a way that the inconveniences of both methods are overcome. Specifically, within meta-analysis techniques we will use that proposed by Hedges and Olkin (1980). Basically, this consists in the sum of the studies which report positive results and, on the other hand, negative results, concerning each of the relations studied. A critical value must be taken. This will be based on the total number of works analysed²⁰.

Table 3: Meta-analytical approach of Hedges and Olkin (1980)

AIM
To synthesise the results of a set of empirical studies in order to estimate an indicative effect size of the strength of the association between one independent variable and another which is dependent
NECESSARY CONDITIONS
1. To totalise for each factor or independent variable the number of studies with offer a significant (positive or negative) or non-significant relation. 2. Not less than ten studies.
EFFECT SIZE
In general, the probability that an independent variable will be significantly (positively or negatively) related with another dependent will be higher the greater the number of studies in which, in the direction proposed, a significant relation with the dependent variable is obtained.
NULL HYPOTHESIS
There is not a significant effect on the dependent variable.
VERIFICATION OF HYPOTHESES
The null hypothesis will be rejected if the number of studies whose relation is significant in the corresponding direction (positive or negative) surpasses a critical value which depends on the total of the studies analysed for that relation. Hedges and Olkin(1980), and , Chetty and Halmiton (1993), consider 4 for ten studies analysed; 5 between 15 and 20; 6 for 30, etc.

Source: Navarro (2000).

²⁰ For example, for an interval of between 10 and 15 studies a critical value of 4 will be taken, if there are 20 works this will be 5 and for 30 investigations this will be 6 (Zou and Stan, 1988; Hedges and Olkin, 1980; Chetty and Hamilton, 1993).

For the selection of the studies which are going to make up the present analysis, we have taken into consideration a series of criteria which have to be fulfilled by the different works for them to be able to be the object of the study. In this way, the work would achieve, a priori, a greater probability of being able to be compared and, where appropriate, its conclusions extrapolated.

- The first criterion to fulfil is the time period in which the works are set. The period chosen is between 1998 and 2013. This is because of our starting point. Madsen (1987) or Aaby and Slater (1989) did their meta-analyses in the period prior to their publications (before 1987), and if Zou and Stan (1998) did so between 1987-1997. Here we have wanted to follow up the time period, covering from 1998 to 2013. Summarising the studies which will be part of this investigation, they are those empirical works (reporting data analysis and statistical tests) related with export performance which appeared in the reference period.
- The second criterion has been to choose those works whose aim was to analyse the determinants of export performance, either as the main goal of the work or else being part of a work of greater scope. As well as these determinants, the works had to use some class of measurement of export performance as a dependent variable.
- The third criterion is the sector to which their study area belongs. Hence, we have chosen works which have centred on both the manufacturing sector and the services sector.
- The fourth and last criterion has consisted in selecting empirical works whose analysis is based on primary sources of data collection, whatever they may be. Information gathering was the technique chosen.

The studies which fulfilled all the aforementioned criteria are those which make up this analysis. The studies included in this review were identified by a process that combined both a manual search and an electronic one. The automatic search was centred on the ABI/INFO database and other sources through Internet, such as Source Premier (EBSCO) and Elsevier Science Direct. The advantage of this search method lay in that sufficient works could be generated by combining keywords related with export performance. On the other hand, the manual search was focused on those journals, books, proceedings, and so forth, which did not appear in the electronic search. The advantage of this search method lay in it helping to identify articles which did not deal with export performance as a main question of analysis, but as a secondary topic. The identification was therefore more difficult than through electronic means. The works identified came from the main journals dedicated to marketing, to international businesses and to topics of business organisation. These were, among others: *Journal of International Business Studies*, *Journal of Global Marketing*,

*Journal of Marketing, International Marketing Review, Management International Research, European Journal of Marketing, Strategic of Management Research, Journal of Small Business Management, Journal of International Marketing, Academy of Management Review, Journal of Business Research, Tourism Management*²¹.

From each work, we recovered the following information: authors of the work, the year of publication, the sample size, the country or countries where the work was done, the sectors it included, the size of the firms studied, the statistical technique/s used, the variables which influence export performance, and the measurement of export performance.

After a process of codification, we used descriptive statistics to determine the frequency of the different methodological parameters as well to differentiate the study period, distinguish between sectors, and obtain a geographical focus of the different works (Mosteller and Bush in Leonidou 2002).

Analysis and results in the measurement of export performance

Here we show the results of the analytical study carried out on the research related with export performance (it is worth recalling that we have taken into consideration empirical studies in the 1998-2013 period²², and that the aim was to find which would be the best way of measuring the export performance variable, as well as how to determine which factors had a greater influence on this variable). To do so, we have followed the proceeding of Hedges and Olkin (1980).

To give a global view of the the results, we draw a series of conclusions which respond to the questions set forth and for which we determined this analytical approach.

- Firstly, from the analysis carried out we indicate that this study included 91 investigations which fulfilled the requirements established. If we compare this with other, similar studies, we note that a great number of works on export performance and its determinants are concentrated in this period. It therefore continues being a variable whose study is of great interest. We also now again recall that the export performance variable presents the result of developing international operations, whatever the entry mode may be. This is what differentiates this study from previous ones, which only chose studies based on exporting as an entry mode (for example,

²¹ As with other studies related with this topic, we limited ourselves to journals published in English, although as a supplement, in the manual search we added journals and proceedings in Spanish (proceedings of congresses, Revista AEDEM, ESIC Market, etc.).

²² Due to questions of space, the studies analysed have not been highlighted in the references but we are willing to facilitate them to those interested. In this case, please address the authors of this work.

Navarro et al., 2002). From the totality of the studies, we see that the immense majority detect statistically significant relations between the determinants of export performance and this performance itself. This leads to the conclusion that those studies which present statistically significant results are more likely to be accepted for publication than those which do not show statistically significant results.

- Secondly, the data collection has all been done through questionnaires. There is the exception of various works such as the study of Aulakh, Kotabe and Tejen (2000), who also use personal interviews to complete data obtained through post or email questionnaires. On the other hand, the works of Rothaermel (2001), Kotabe, Srinivasan, and Aulakh (2002) and Contractor, Kundu and Hsu (2003) use secondary data in their investigations, and that of Mas, Nicolau and Ruiz (2002) carries out a case analysis. The other investigations have used post and email questionnaires to gather the information. To determine the number of firms from which information has been obtained to develop this work, we have found out the average size and the median of the samples of each of the works included in this analytical study. The average of the samples is 411 interviews and the median is 183. That is to say, around 200 interviews is the normal figure which most of the researchers have worked with. The fact that the sample average which appears in this analytical work is so different from the mean is because there are various works with very high samples. This makes the average sample size go up. Thus, the works of Delios and Beamish (2001) with 1,656 firms in their sample, Konopaske et al. (2002) with 3,835 firms, Guillén (2002) with 4,440 firms and Zhao and Luo (2002) with 1,649 firms represent the studies which have the greatest number of firms as samples in their respective works.

- Thirdly, we indicate the statistical techniques used to analyse the data obtained. In this case, Regression Analysis was most employed (in 32 studies), the use of Structural Equations being highly relevant in recent years (a technique which was not used very much previously). Correlation analysis is also utilised in a great quantity of studies. The explanation for the majority use of Regression Analysis or Structural Equations and, on a second level, Correlation Analysis is that the very aim of the majority of the studies reviewed is to determine the factors which influence the export performance variable. Also, and as can be seen in the following table (Table 4), other analysis techniques appear but less than those mentioned (among them are the t-student, the chi-squared, the Duncan test, etc).

Table 4. Conclusions of the analytical study: Statistical analysis techniques

Regression Analysis	Structural Equations	Correlation Analysis	Discriminant Analysis	Others
32	29	18	13	14

- Fourthly, the export performance variable has been measured differently throughout the studies analysed (on the one hand, through economic and non-economic measures; on the other hand, via objective or subjective measures). The use of both objective and subjective measures has been found in this study. What is more, composite scales of measurements (objective and subjective) have been mainly used. There have been various objective measures used in the studies, from the sales figure in foreign markets to the profits obtained from international operations, plus others such as the market share. Nevertheless, the subjective measures have been fundamentally centred on the satisfaction levels of the managers of the firms surveyed concerning a set of variables. The use of this type of measures is justified due to the reticence of the firms surveyed to offer economic data about their results. For this reason, and in addition to the objective measures which can be obtained, subjective measures are used. In this way, the increasingly greater use of composite scales is justified to measure the export performance variable.

Table 5. Conclusions of the analytical study: Measurement of the export performance variable

Composite measure	Profitability	Sales	Successes	Growth	Satisfaction	Market share	Export Intensity	Others
35	23	19	16	14	14	6	5	5

- Fifthly, we also observe a great variety of factors which influence the determinants of the export performance variable in the studies analysed. Although the list of determinant factors is quite broad, conclusions cannot be drawn for all the relations as there is not a sufficient number of investigations. Nonetheless, sufficient works have been found for certain factors to establish that there are statistically significant relations between them and the export performance variable, due to the effect size being large enough to reach these conclusions.

A very relevant aspect to highlight is that the classification of the determinants of export performance which we have followed is that noted by Zou and Stan (1998). Of the 32 determinants, we selected those which have appeared in the studies analysed. Notwithstanding, and here lies the difference with previous studies, this relation of determinant factors refers to the export mode as a way of entry. For this work, we have extended this list to various factors which appear as determinants in the result of activity abroad and we have also included other expansion modes. Yet, as the number of studies that relate determinant factors with the result in entry modes which are not exportation is very small, significant conclusions cannot be practically established.

Table 6: Effect and Effect Size of each determinant on export performance

DETERMINANTS	N° Cases	+	Ns	-	+	Ns	-
Firm characteristics	12	9	3	-	0.75	0.25	-
Exporter commitment	15	13	1	1	0.87	0.07	0.07
Technology		6	1	-	0.86	0.14	-
Strategy of International Expansion	18	15	3	-	0.83	0.17	-
International Competences	11	10	1	-	0.91	0.09	-
Firm size	38	27	9	2	0.71	0.24	0.05
Sector instability	1	-	1	-	-	1	-
Export Organisation	25	20	5	-	0.80	0.2	-
Entry Mode	9	4	3	2	0.44	0.33	0.22
Age/Experience	20	14	4	2	0.70	0.2	0.10
International Orientation	19	18	1	-	0.95	0.05	-
Barriers to Internationalisation	11	-	2	9	-	0.19	0.81
Investigation of markets	17	14	2	1	0.82	0.12	0.06
Planning of activities	20	17	2	1	0.85	0.1	0.05
Product adaptation	19	14	3	2	0.74	0.16	0.11
Price adaptation	12	6	4	2	0.50	0.33	0.17
Communication adaptation	13	5	7	1	0.38	0.54	0.08
Distribution adaptation	12	6	4	2	0.50	0.33	0.17
Relational aspects	30	26	3	1	0.87	0.1	0.03
Competitiveness in foreign markets	3	1	1	1	0.33	0.33	0.33
Attractive destination market	17	15	2	-	0.88	0.12	-
Attractiveness of industry	11	8	1	2	0.73	0.09	0.18
National market characteristics	20	16	2	2	0.80	0.1	0.10
Intensity in communication	12	9	2	1	0.75	0.17	0.08
General characteristics	11	9	2	-	0.82	0.18	-
Exp./training of managers	16	13	3	-	0.81	0.19	-
Age JIV/subsidiary	12	9	3	-	0.75	0.25	-
Size JIV/subsidiary	8	6	2	-	0.75	0.25	-
Control activities of marketing by the parent company	7	5	1	1	0.71	0.14	0.14
Control activities of marketing by subsidiary	1	1	-	-	1.00	-	-
Product JIV related with some of the parent companies	1	1	-	-	1.00	-	-
Complementarity of sources between partners	1	1	-	-	1.00	-	-
Congruence of aims between partners	1	1	-	-	1.00	-	-
Equitable distribution of property	5	3	2	-	0.60	0.4	-
Specification of the terms of the contract	2	2	-	-	1.00	-	-

Table 6 reflects the number of studies in which we found a significant relation (positive or negative) or a non-significant relation between each determinant factor and for each measure of export performance. We set out from the premise that the relation between two variables will only be generalised when, under different contexts or circumstances, the same results are obtained (Bilkey, 1987). Table 7 brings together the effect of each

determinant on the result of the foreign activities as well as the strength of its relation (effect size), determined according to the study of Hedges and Olkin (1980). That is to say, it shows the effect of each determinant on export performance in general (in other words, not on any specific measure), as well as the effect size.

Analysing this last table, the different factors have been grouped according to their having a positive or a negative influence on export performance, or being non-significant (either because the number of studies is not enough, or due to the conclusions about them not being explanatory).

From the results obtained, we highlight that out of the 32 determinants of the organisation's exporting result which Zou and Stan (1998) propose, 26 are found here in the studies analysed. The rest of the factors in our work (9) correspond to studies in which the export performance variable in joint ventures is analysed.

21 of the total of 35 factors which appear as determinants of export performance have a positive and significant relation as a determinant. In 1 factor, this relation was significant but it was negative and in another factor no significance was found about export performance. For the rest of the factors, neither the effect nor the size can be determined, either because there was not the minimum number of studies, or else due to the results obtained not being conclusive.

Table 7: Summary of the type and importance of the effect on export performance

FACTOR	EFFECT SIZE	FACTOR	EFFECT SIZE
Positive effect and statistically significant			
1.-International orientation	0.95	12.-Organisation of exportation	0.80
2.-International competences	0.91	13.-Firm characteristics	0.75
3.-Attractive market	0.88	14.-Intensity of	0.75
4.-Relational aspects	0.87	15.-Age of the subsidiary	0.75
5.-Exporting commitment	0.87	16.- Product adaptation	0.74
6.-Planning of activities	0.85	17.-Attractiveness of the	0.73
7.-Internat. Expansion strategy.	0.83	18.-Firm size	0.71
8.-General characteristics	0.82	19.-Age/Experience	0.70
9.-Market research	0.82	20.-Price adaptation	0.50
10.-Exper./training of	0.81	21.-Distribution adaptation	0.50
11.-National Market Charact.	0.80		
Negative effect and statistically significant			
1.- Barriers to	0.81		
Non-significant relation			
1.- Communication adaptation	0.54		
Unclear effect			
1.-Entry mode		7.-Control mkt. activities by the subsidiary	

2.-Instability of the sector	8.-Product of the subsidiary related with the parent
3.-Competitiveness in for. markets	9.-Congruence of aims between partners
4.-Size of the subsidiary	10.-Equitable distribution of the property
5.-Control of activities of marketing by the parent	11.-Specification of the terms of the contract
6.-Complementarity of resources between partners	12.-Technology

Conclusion, limitations and future works

The factors related with firm competences and capabilities in the planning of activities, organisation of foreign activities and others of the same nature, those associated with marketing strategy, and aptitudinal and relational factors have become the main determinants of an organisation's foreign success. Thus, a greater international orientation, as well as a stronger export commitment, will lead to a higher assignation of resources for the knowledge of foreign markets and the harnessing of opportunities (Ambler, Styles and Xiucum, 1999; McPherson, 2000; Katsikeas and Skarmas, 2003). We must take into account that the international orientation will be conditioned by the stage of the internationalisation process the firm finds itself in (Katsikeas et al., 1996). We also have to highlight that the relational aspects with different members of the value chain are a key aspect for success in the results of foreign activities (Sharma and Patterson, 2000; Rothaermel, 2001; Ruigbrok and Warner, 2003; among others).

Another group of factors which have a special significance concerning export performance are those related to the firms competences, both international and in its more generic facet, as these are generators of competitive advantages in foreign markets (among others: Navarro, 2000; Aulakh, Kotabe and Tejen, 2000; Albaum and Tse, 2001). Among these general competences the organisation's international experience is underlined in previous studies as an important factor (which is normally measured by the number of years that the firm has been carrying out activities abroad, given that this greater experience will facilitate a better knowledge of foreign markets).

As to the factors related with marketing strategy, the adaptation of the variables which make up the marketing mix also become determinant factors of export performance (Aulakh et al., 2000; Albaum and Tse, 2001; O' Cass and Julian, 2003; Shoham et al, 2003). The adaptation of these variables will reduce the psychological distance between the countries which are involved in the transaction, thus reducing uncertainty. This will favour the results.

Other factors which have a positive and significant effect on export performance are those related with the characteristics of the managers who have competences in the international activity, the planning and organisation of the export activity, the market research, and the attractiveness of both the industry and the destination market (Beamish et al, 1999; Francis and

Collins-Dodd, 2000; Cadogan et al., 2002; Shoham et al., 2003; Gong, 2003; are some of the works which have borne in mind these factors). In the same way, the organisation and planning of the activities abroad play an important role in order to attain better levels of export performance (Katsikeas and Skarmeas, 2003; among others).

From the set of factors which appear in the studies on export performance in joint ventures, we observe how the time the subsidiary has been functioning and its size have a positive and significant influence (although for the latter there is not a minimum number of works which permit us to generalise this). Among others, the studies which we find on this topic are: Lane et al. (2001), Konopaske et al. (2002), and Luo (2002). We cannot draw definitive conclusions from the other factors which appear to intervene in the result of the foreign activity in joint ventures due to the scarcity of studies.

Regardless of the above, we must say that the theoretical frameworks on which the investigations analysed here are centred are not explicitly noted in the results of the analytical study. However, these investigations are tied in with a broad variety of theoretical orientations which range from approaches based on the theory of Resources and Capabilities to approaches based on the theory of Transaction Costs, via orientations such as the theory of Relational Marketing, among others. Moreover, an ample set of studies appear which do not make explicit the theoretical framework where their research is developed. For this reason, in our analytical study we have ignored explicitly determining the theoretical framework where each study originates.

Finally, to conclude it is indispensable to recognise the defects which this analytical study may have. To do so, we base ourselves on what was contributed by Arenas (2003) about the limitations which an analytical study can have.

The first limitation noted ensues from the data search sources which we have used. The works found and their quality are the source of this analytical study. The quality of the analytical study will depend on this, hence the first limitation. That is to say, no bibliographical search which is carried out can identify all the investigations that can be extracted on a topic. In our case, we have used the databases available in the University Pablo de Olavide. From them, we have carried out searches of the journals previously reviewed and we must point out that not all the journals offer the possibility of accessing the complete text of articles. This has been remedied by either asking the publishing house for those works which seemed interesting to make up our study, or else through contacting the author to obtain the work. Another data source was the proceedings of congresses and the access to Spanish journals on topics of firms and marketing. Nevertheless, as we have pointed out before, it is impossible to gather everything published on a topic.

Secondly, and as a consequence of the above, this study only has published works and not everything done on a topic is published. As Rosenthal and Di Mateo (2001) indicate, those works which find statistically significant results between the relations studied are more likely to be published. This shows that there is a so-called *publication bias*, as practically only works with this kind of results are published. Meanwhile, there are others, on the other hand equally valid, which do not find statistically significant results and that, for this reason, do not find a niche in publications. As Sánchez Meca (1999) indicates, and as Arenas (2003) reports, in a meta-analysis which only has published works, the results can be biased in the sense of overestimating the interest effect.

A third limitation found is that any analytical study studies things which are similar but not identical. That is to say, the studies analysed tend to vary considerably regarding the sample size, the theoretical framework, the target population (business size, country, industrial sector, etc.), statistical technique used, way of measuring the variables, and so on. Following what was indicated by Arenas (2003), when the results of the analytical study are positive, this is no hindrance and its conclusions can be generalised. However, the problem arises when the results are not absolutely clear. This lack of homogeneity in the studies analysed can be confusing. This leads to quite a few differences concerning the measure of the variable, statistical techniques, and so forth. This is why we stick with the results of each work and not with the data through which these conclusions have been reached. For this reason, and following the author previously mentioned, it is not possible to do new analysis with the data accumulated from all the investigations. This would have given an image closer to reality on the whole.

Due to this set of limitations (and others which undoubtedly exist), we remain cautious as to the generalising of the results obtained. Yet, for this case, it is clearly shown that the export performance variable must be measured through a composite measurement which at the same time reflects this variable's objective and subjective measures. These will complement each other to attain a result closer to this measure. At the same time, a series of factors which influence the variable in a statistically significant manner are also extracted.

Therefore, and in spite of the limitations commented upon, referring to the conclusions about measures and determinant factors, this analytical study is useful for later works whose study variable is export performance.

References:

- Aaby, N.E. and Slater, S.F. (1989): "Management Influences on Export Performance: A Review of the Empirical Literature 1978-1988", *International Marketing Review*, vol. 6, n° 4, pp. 7-26.
- Albaum, G and Tse, D.K. (2001): "Adaptation of International Marketing Strategy Components, Competitive Advantage and Firm Performance: A Study of Hong Kong Exporters", *Journal of International Marketing*, vol. 9, n° 4, pp. 59-81.
- Ambler, T., Styles, Ch. and Xiucun, W. (1999): "The Effect of Channel Relationship and Guanxi on the Performance of Inter Province Exports Venture in the People's Republic of China", *International Journal of Research in Marketing*, vol. 16, pp. 75-87.
- Arenas, J. (2003): *Alianzas Estratégicas Internacionales: La Influencia de las Relaciones*. Tesis Doctoral. Universidad de Sevilla.
- Aspelund, A. and Moen, O. (2005): "Small International Firms: Typology, Performance and Implications", *Management International Review*, vol. 45, n° 3, pp. 37-57.
- Aulakh, P., Kotabe, M. and Teegen, H. (2000): "Export Strategies and Performance of Firms from Emerging Economies: Evidence from Brazil, Chile and Mexico", *Academy of Management Journal*, vol. 43, n° 3, pp. 342-361.
- Bae, J. and Lawler, J. (2000): "Organizational and HRM Strategies in Korea: Impact on Firm Performance in an Emerging Economy", *The Academy of Management Journal*, vol. 43, n° 3, pp. 502-517.
- Beamish, P.W., Karavis, L., Goerzen, A. and Lane, C. (1999): "The Relationship between Organizational Structure and Export Performance", *Management International Review*, vol. 39, n° 1, pp. 37-54.
- Bilkey, W.J. (1978): "An Attempted Integration of the Literature on the Export Behavior of Firms", *Journal of International Business Studies*, spring/summer, pp. 33-46.
- Brouthers, K.D., Brouthers, L.E. and Werner, S. (2003): "Transaction Cost-Enhanced Entry mode Choices and Firm Performance", *Strategic Management Journal*, vol. 24, n° 12, pp. 1239-1253.
- Brouthers, K.D. (2002): "Institutional, Cultural and Transaction Cost Influences on Entry Mode Choice and Performance", *Journal of International Business Studies*, vol. 33, n° 2, pp. 203-221.
- Cadogan, J.W., Diamantopoulos, A. and Siguaw, J.A. (2002): "Export Market-Oriented Activities: Their Antecedents and Performance Consequences", *Journal of International Business Studies*, vol. 33, n° 3, pp. 615-626.

- Cavusgil, S.T., Zou, S. (1994): "Marketing Strategy-Performance Relationship: An Investigation of the Empirical Link in Export Market Ventures", *Journal of Marketing*, vol. 58, n° 1, pp. 1-21.
- Chetty, S. and Hamilton, R. (1993): " Firm-Level Determinants of Export Performance: A Meta-Analysis", *International Marketing Review*, vol. 10, n° 3, pp. 26-34.
- Contractor, F., Kundu, S. and Hsu, C. (2003): "A Three-Stage Theory of International Expansion: The link between Multinationality and Performance in the Service Sector", *Journal of International Business Studies*, vol. 34, n° 1, pp. 5-18.
- Contractor, F., Kundu, S. and Hsu, C. (2005): "Explaining Export Performance: A Comparative Study of International New Ventures in Indian and Taiwanese Software Industry", *Management International Review*, vol. 45, n° 3, pp. 83-111.
- Dalto, D., Daily, C., Certo, T. and Roengpitya, R. (2003): "Meta-Analyses of Financial Performance and Equity: Fusion or Confusion?", *Academy of Management Journal*, vol. 46, n° 1, pp. 13-26.
- Delios, A. and Beamish, P.W. (2001): "Survival and Profitability: The Roles of Experience and Intangible Assets in foreign Subsidiary Performance", *Academy of Management Journal*, vol. 44, n° 5, pp. 1028-1038.
- Delios, A. and Makino, S. (2003): "Timing of entry and the Foreign Subsidiary Performance of Japanese Firms", *Journal of International Marketing*, vol. 11, n° 3, pp. 83-105.
- Dhanaraj, C. and Beamish, P.W. (2003): "A Resource-Based Approach to the Study of Export Performance", *Journal of Small Business Management*, vol. 41, n° 3, pp. 242-261.
- Diamantopoulos, A. (1999): "Viewpoint - Export Performance Measurement: Reflective versus Formative Indicators", *International Marketing Review*, vol. 16, n° 6, pp. 444-453.
- Dominguez, L. and Sequeira, C. (1993): "Determinants of LDC Exporters' Performance: A Cross-national Study", *Journal of International Business Studies*, vol. 24, n° 1, pp. 19-40.
- Evangelista, F. (1994): "Export Performance and its Determinants: Some Empirical Evidence form Australian Manufacturing Firms", *Advances in International Marketing*, vol. 6, pp. 207-229.
- Francis, J. and Collins-Dodd, C. (2000): "The Impact of Firms' Export Orientation on the Export Performance of High-Tech Small and Medium-Sized Enterprises", *Journal of International Marketing*, vol. 8, n° 3, pp. 84-103.
- Gomez-Mejia, L. (1988): "The Role of Human Resources Strategy in Export Performance: A Longitudinal Study", *Strategy Management Journal*, vol. 9, n°5, pp. 493-505.

- Gong, Y. (2003): "Subsidiary Staffing in Multinational Enterprises: Agency, Resources, and Performance", *Academy of Management Journal*, vol. 46, n° 6, pp. 728-739.
- Hedges, L. and Olkin, I. (1980): "Vote-Counting Methods in Research Synthesis", *Psychological Bulletin*, vol. 88, n° 2, pp. 359-369.
- Katsikeas, C., Deng, S. and Wortzel, L. (1997): "Perceived Export Success Factors of Small and Medium Sized Canadian Firms", *Journal of International Marketing*, vol. 5, n° 4, pp. 53-72.
- Katsikeas, C., Leonidou, L. and Morgan, N. (2000): "Firm-Level Export Performance Assessment: Review, Evaluation and Development", *Journal of the Academy of Marketing Science*, vol. 28, n° 4, pp. 493-511.
- Katsikeas, C., Piercy, N. and Ionnidis, C. (1996): "Determinants of Export Performance in a European Context", *European Journal of Marketing*, vol. 30, n° 6, pp. 6-35.
- Konopaske, R., Wernerr, S. and Neupert, K.E. (2002): "Entry Mode Strategy and Performance: The Role of FDI Staffing", *Journal of Business Research*, vol. 55, n° 9, pp. 759-770.
- Kotabe, M., Srinivasan, S. and Aulakh, P. (2002): "Multinationality and Firm Performance: The moderating Role of R&D and Marketing Capabilities", *Journal of International Business Studies*, vol. 33, n° 1, pp. 79-97.
- Lane, P., Salk, J. and Lyles, M. (2001): "Absorptive Capacity, Learning and Performance in International Joint Ventures", *Strategic Management Journal*, vol. 22, n° 12, pp. 1139-1161.
- Leonidou, L., Katsikeas, C. and Samiee, S. (2002). "Marketing Strategy Determinants of Export Performance: A Meta-Analysis", *Journal of Business Research*, vol. 55, pp. 51-67.
- Lu, J.W and Beamish, P.W. (2004): "International Diversification and Firm Performance: The S-Curve Hypothesis", *Academy of Management Journal*, vol. 47, n° 4, pp. 598-620.
- Luo, Y. (2002): "Contract, Cooperation, and Performance in International Joint Ventures", *Strategic Management Journal*, vol. 23, n° 0, pp. 903-919.
- Luo, Y. (2002): "Product Diversification in International Joint Ventures: Performance Implications in an Emerging Market", *Strategic Management Journal*, vol. 23, n° 0, pp. 1-20.
- McPherson, A. (2000): "The Role of International Design Orientation and Market Intelligence in the Export Performance in US Machine Tool Companies", *R&D Management*, vol. 30, n° 2, pp. 167-176.
- Madsen, T.K. (1998): "Executive Insight: Managerial Judgement of Export Performance", *Journal of International Marketing*, vol. 6, n° 3, pp. 82-93.

- Mas, F.J., Nicolau, J.L. and Ruiz, F. (2002): "Foreign Expansion Strategy and Performance", *International Marketing Review*, vol. 19, n° 4, pp. 348-365.
- Matthyssens, N. and Pauwels, P. (1996): "Assessing Export Performance Measurement", *Advances in International Marketing*, vol. 6, n° 4, pp. 85-114.
- Morgan, N. A., Katsikeas, C. S. and Vorhies, D. W. (2012): "Export Marketing Strategy Implementation, Export Marketing Capabilities, and Export Venture Performance", *Academy of Marketing Science Journal*, vol. 40, n° 2, pp. 271-289.
- Mysen, T. (2013): "Towards a Framework for Controls as Determinants of Export Performance", *European Business Review*, vol. 25, n° 3, pp. 224-242.
- Navarro, A. (2000): *Modelización de la Performance de Exportación: Una Aplicación a las Denominaciones de Origen Vitivinícolas Españolas*. Tesis doctoral, Universidad de Sevilla.
- Nazar, M.S. and Shaikh, F. M. (2011): "Determinants of Export Performance of Small and Medium Enterprises", *Journal of Business Strategies*; vol. 5, n°1, pp. 21-31.
- O'Casey, A. and Julian, C. (2003): "Examining Firm and Environmental Influences on Export Marketing Mix Strategy and Export Performance of Australian Exporters", *European Journal of Marketing*, vol. 37, n° 3, pp. 366-384.
- Pan, Y. and Chi, P. (1999): "Financial Performance and Survival of Multinational Corporations in China", *Strategic Management Journal*, vol. 20, n° 4, pp. 359-375.
- Pla, J. and Sanchez, E. (2003): "Variables Estratégicas y Performance en la Elección de Modos de Entrada. Una Aproximación Empírica en Sectores de Prestación de Servicios", *Actas del Congreso de ACEDE*.
- Rasheed, H. (2005): "Foreign Entry Mode and Performance: The Moderating Effects of Environment", *Journal of Small Business Management*, vol. 43, n° 1, pp. 41-53.
- Robson, M.J., Leonidou, L.C and Katsikeas, C.S. (2002): "Factors Influencing International Joint Venture Performance: Theoretical Perspectives, Assessment, and Future Directions", *Management International Review*, vol. 42, n° 4, pp. 385-418.
- Rosenthal, R. (1976): *Experimenter Effects in Behavioral Research*, Irvington, Nueva York.
- Rosenthal, R. (1991): *Meta-Analytic Procedures for Social Research*, Sage. Newbury Park.

- Rosenthal, R. and DiMatteo, M. (2001): "Meta-Analysis: Recent Developments in Quantitative Methods for Literature Reviews", *Annual Reviews of Psychology*, vol. 52, pp. 59-82.
- Rothaermel, F.T. (2001): "Complementary Assets, Strategic Alliances and the Incumbent's Advantage: An Empirical Study of Industry and Firms Effects in the Biopharmaceutical Industry", *Research Policy*, vol. 30, pp. 1235-1251.
- Ruigrok, W. and Wagner, H. (2003): "Internationalization and Performance: An Organizational Learning Perspective", *Management International Review*, vol. 43, n° 1, pp. 63-82.
- Sanchez-Meca, J. (1999): *Metaanálisis para la investigación científica*, en Sarabia, F. (1999), *Metodología para la investigación en Marketing y Dirección de Empresas*, Pirámide, Madrid, pp. 173-201.
- Sharma, N. and Patterson, P.G. (2000): "Switching Cost, Alternative Attractiveness and Experience as Moderators of Relationship Commitment in Professional Customer Service", *International Journal of Service Industry*, vol. 11, n° 5, pp. 470-490.
- Shoham, A. (1998): "Export Performance: A Conceptualization and Empirical Assessment", *Journal of International Marketing*, vol. 6, n° 3, pp. 59-81.
- Shoham, A., Evangelista, F. and Albaum, G. (2003): "Strategic Firm Type and Export Performance", *International Marketing Review*, vol. 19, n° 0, pp. 236-258.
- Singh, H. and Mahmood, R. (2013). "Determining the Effect of Export Market Orientation on Export Performance of Small and Medium Enterprises in Malaysia: An Exploratory Study", *Advances in Management and Applied Economics*, vol. 3. N° 6, pp. 223-232.
- Skarmeas, D., Katsikeas, C. and Schlegelmilch, B. (2002): "Drivers of Commitment and its Impact on Performance in Cross-Cultural Buyer-Seller Relationships: The Importer's Perspective", *Journal of International Business Studies*, vol. 33, n° 4, pp. 757-783.
- Smith, M.L. and Glass, G.V. (1977): "Meta-Analysis of Psychotherapy Outcome Studies", *American Psychologist*, vol. 32, pp. 752-760.
- Styles, C. (1998): "Export Performance Measures in Australia and the United Kingdom", *Journal of International Marketing*, vol. 6, n° 3, pp. 12-36.
- Zhao, H. and Luo, Y. (2002): "Product Diversification, Ownership Structure and Subsidiary Performance in China's Dynamic Market", *Management International Review*, vol. 42, n° 1, pp. 27-48.
- Zou, S and Cavusgil, S.T. (2002): "The GMS: A Broad Conceptualization of Global Marketing Strategy and its Effect on Firm Performance", *Journal of Marketing*, vol. 66, n° 4, pp. 40-56.

Zou, S. and Stan, S. (1998): “The Determinants of Export Performance: A Review of the Empirical Literature between 1987 and 1997”, *International Marketing Review*, vol. 15, n° 5, pp. 333-345.

Zou, S., Fang, E. and Zhao, S. (2003): “The Effect of Export Marketing Capabilities on Export Performance: An Investigation of Chinese Exporters”, *Journal of International Marketing*, vol. 11, n° 4, pp. 32-55.

Zou, S., Taylor, C. and Osland, G.E. (1998): “The EXPERF Scale: A Cross-National Generalized Export Performance Measure”, *Journal of International Marketing*, vol. 6, n° 3, pp. 37-58.

Competent (And/Or Responsible) Parenting as a Prerequisite for a Complete Child Development

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Abstract

The issue of parental pedagogical competence is becoming more pronounced particularly if it is understood in the context of raising children for a competent and responsible behaviour. Parenting involves undertaking various activities aimed at taking care of the child, encouraging his/her development, and simultaneously developing interpersonal relations. In their parenting, parents seek to fulfil various personal and social expectations, so the key issue is how parents perceive their own pedagogical competence. In order to study how parents (self-)assess their pedagogical competence, a research was conducted on a sample of 90 parents of children of early and pre-school age. Factor analysis identified four factors: lack of knowledge and of confidence in child-rearing, blaming somebody else, and uncertainty in the ability to influence the child, which explain the pedagogical incompetence, and confidence factor in child-rearing which indicates parental pedagogical competence. The T-test was performed and at the significance level of $p < 0.05$ no significant difference was found in self-assessed parental competence with respect to the gender and age of the child. It is reasonable to argue that parents need occasional or more permanent support and help in the acquisition of knowledge of parenting, which can and should be primarily provided by the educators in institutions.

Keywords: Child development, competence, educators, programs, parenting

Introduction

The concepts of parental *pedagogical competence* and *responsible parenthood* cannot be equated, but it is necessary to understand their close connection and the fact that pedagogical competence includes and implies responsible parental behaviour. Parental pedagogical competence is understood as the experience of an individual as "a person who has control

over their parenting and the relationship with the child and feels good as a parent" (Milanović et al., 2000: 123). Responsible is considered a person who "conscientiously and responsibly carries out their duties; who has a duty to do a job, a task, and assumes responsibility for the results" (Anić, 2007: 310).

The concept of responsibility is often mentioned in speech, especially in the scientific discourse of ethics, psychology, pedagogy, etc. and various definitions are offered. Explaining the concept of responsibility Vučković (2000) states that in contemporary ethical considerations, the notion of responsibility has replaced the former concept of duty. "The notion of responsibility, though not unknown in ethics and though Aristotle already knew that a person is responsible for the deeds he did freely, and yet only in our century has it become the centre of ethical debates and has increasingly been emerging as one of the basic ethical concepts" (Vučković, 2000: 18).

In this paper, the parental competence and responsibility are approached from a pedagogical perspective, which focuses on teaching children competent and responsible behaviour towards themselves, others, and the world around them (Glasser, 2000), where the responsibility is understood as one of the components of competence (knowledge, skills, values, and attitudes), i.e. as a competence of value. It is likely, which was confirmed by researches (Gustović-Ercegovac, 1992; Ljubetić, 2007; Mandarić Vukušić, 2016) that the responsible parental behaviour is an integral part of parental pedagogical competence. In other words, a parent who fosters responsibility as a value, also has the attitude that responsible behaviour is important, has sufficient knowledge and information on the role of responsibility in the life of the individual and the community, and very likely knows how to develop responsible behaviour (skills).

Contemporary society is burdened with changes in all aspects of human living, and in particular in those concerning the family and its functioning, and parenting. Parenting is at the same time a process, relationship and role, and implies undertaking various activities aimed in particular at taking care of the child and encouraging his/her development, and developing and improving interpersonal relations (Ljubetić, 2007; Maleš and Kušević, 2011; McClain, 2013; Stacey, 2013). Parents are constantly facing new challenges, one of which is how to raise a child for a responsible behaviour and competent performance in all spheres of life, both in the current moment and in the future as well. The roots of children's responsible behaviour lie in the family child-rearing during the child's early and pre-school age, especially in a family environment. Responsible behaviour towards oneself, others and the world around oneself ("personal and social responsibility", according to Juul, 2008; Juul and Jensen, 2010) are key points of child-rearing that (at least to some extent) guarantee a quality

(co)existence, the development of the individual and the community, respect for human values and the rights of individuals in a society, tolerance, understanding and accepting diversity, and the like. Competent and responsible adults, especially parents, are likely to find effective strategies for teaching their children responsible behaviour not only by leading them (teaching them), but also by providing them with an appropriate model of responsible behaviour. A competent and responsible parent successfully meets his/her own needs, but not at the expense of the other parent and / or child, assumes responsibility for their own parenting and constantly questions and self-assesses his/her parental performance trying to determine whether it leads him/her to the desired goal, without endangering the child in the process (Ljubetić 2011; 2012). Quality parental self-assessment is the basis for continuous work on oneself and improving parental personality and parental performance (Delač Hrupelj et al., 2000; Janičić-Holzer, 2007; Ljubetić, 2012). Competent and responsible parents build and foster care-demanding parenting style (Dacey and Kenny, 1994) believing that it will achieve the best educational results. Modern parenting is full of challenges possibly because the focus has been transferred from the parental rights to the children's rights (Maleš and Kušević, 2011), and it is why the responsible behaviour (of children and adults) needs to be observed in that context. Researches show that in addition to the parents feeling confident of the decisive influence on their child and sensitivity to parenting, parental responsibility is one of the fundamental components of pedagogically competent parenting (Ljubetić, 2007; Mandarić Vukušić, 2016). Parents as the child's primary educators are responsible not only for taking care of the child and encouraging his/her development, but also for using all personal capacities and social potentials in order to achieve quality development of their child (Milanović et al., 2000). Parental pedagogical competence implies a relationship between the parent and the child on whose quality depends the satisfaction and confidence of parents as well as the success of the child (Jurčević Lozančić and Kunert, 2015). Lack of knowledge, lack of confidence, unsatisfactory relationship with the child and, as its natural consequence, the burden of parenting (Ljubetić, 2007), are the characteristics of the parental pedagogical incompetence that can greatly endanger the full and complete child development. For these reasons it is necessary to increase parental competence; the need to educate parents (Stričević, 2011; Petani and Kristić, 2012; Mandarić Vukušić, 2016), arises from the social and economic changes that are altering family and environment, and from the legal framework that emphasizes the importance, rights and responsibilities of parents, in particular personal responsibility of parents for the child and the family. Professional staff in kindergartens are the first who need to: a) notice parental need for additional education in parenting, b) devise prevention and

compensatory programs in parenting, c) implement one-time and continuous programs in line with parents' needs, and d) monitor and evaluate the implementation of programs and their effects directly on parents and indirectly on their children.

Research methodology

Research problem

Pedagogical competence and responsibility towards oneself and others emerge as a possible response to the challenges that modern times pose to individuals. This is why parents need to teach their children responsibility, which they can do best by setting their own example. In this study, it was presumed that the competent parent is the one who feels secure in his/her role as a parent and who assumes responsibility for the relationship with his/her child. Therefore, the research problem is to determine the perception of parental educational competence in parenting using self-assessment.

Research aim

With regard to the defined problem, the aim of the research is to determine the extent to which parents feel competent in their parental role.

Hypotheses

The main hypothesis (H_{main}) of this research is that parents assess themselves as pedagogically competent in parenting. Two sub-hypotheses were formulated:

H1 - there is no statistically significant difference in self-assessed parental pedagogical competence with regard to the gender of the child, and

H2 - there is no statistically significant difference in self-assessed parental pedagogical competence with regard to the age of the child.

Research instrument and data analysis procedure

For this research, a questionnaire was used which consists of two parts: (1) general information about the respondents (gender, age, occupation, number of children, gender of children, age of children, leisure and support of the extended family) and (2) a questionnaire by Gustović Ercegovac (1992) concerning parents' self-assessment of their competence for the parental role. The instrument consists of twenty variables presented as statements, and the respondent circles one of the five possible answers on an agree-disagree scale from completely correct to completely wrong. Completely correct is marked with number 1, and completely wrong with number 5.

A descriptive and inferential data analyses were conducted. Descriptive analysis included frequency, percentage, mean value, and deviation from the mean. Inferential analysis included factor analysis and t-test. The results are shown in tables and are interpreted.

Research sample and procedure

Ninety parents of early and pre-school aged children who at the time of the survey (May and September 2016) attended kindergartens in the city of Kaštela participated in this study. In the total sample, there were 86.7% women and 13.3% men. Participants were aged 30-39 (74.4%), 40 years and over (17.8%), and 20-29 (7.8%). A total of 80% of them were employed, while 20% were unemployed. The structure of the sample with respect to the number of children in the family was as follows: parents with two children (52.2%), three or more children (37.8%) and one child (10%). With respect to the gender of children, 60% of survey participants have male and 40% female children.

Results and interpretation

The structure of the field of parental pedagogical (in)competence

To understand the field of parental pedagogical (in)competence on this sample of respondents, factor analysis (Table 1) was conducted.

Table 1. Factor analysis of items and Cronbach's alpha coefficients

Item number and content	1	2	3	4	\mathcal{L}
Factor 1. Lack of knowledge and lack of confidence in child-rearing					0.81
15. I need more knowledge to treat my child more properly.	0.81				
16. I am thinking about what will later turn out to be a mistake in child-rearing.	0.75				
19. I always think I could have acted differently.	0.70				
13. I am often not sure that I am properly raising my child.	0.69				
5. I think I do not have enough knowledge to approach my child.	0.62				
2. If I had been better raised, I would have known more how to treat my children.	0.46				
Factor 2. Confidence in child-rearing					0.76
20. I am convinced that all my actions are for the good of my child.		0.75			
1. I feel confident when I'm being a parent.		0.70			
4. I know by instinct what the child needs.		0.68			
14. When I see that I did something wrong towards my child, it really hurts me.		0.62			
8. I am convinced that I treat my child well.		0.60			
12. Raising a child is a burden for me.		0.47			
3. I often feel that my child has a better relationship with		0.43			

others than with me.					
Factor 3. Blaming someone else					0.55
10. My child is more demanding than other children.			0.72		
6. The most important thing is what we have inherited in the genes.			0.61		
7. I often leave to my spouse a problem with the child.			0.60		
Factor 4. Lack of confidence regarding the ability to influence				0.64	0.63
18. In addition to so many other influences (school, TV, peers), my influence on the child is small.				0.59	
9. I'm not sure I can influence my child.				0.49	
11. Whatever I do, my child reacts more or less the same.				0.48	
17. My influence is decisive for the development of my child.					

* Variables 3, 12, 17 have been turned because of the negative coefficients. The answers ranged from 1 to 5 where 1 meant total agreement with each statement, and number 5 complete disagreement.

The conducted analysis (Table 2) extracted four factors: lack of knowledge and lack of confidence in child-rearing (0.81), confidence in child-rearing (0.76), blaming someone else (0.55), and lack of confidence regarding the ability to influence (0.63). Having implemented the statistical analysis, it was found that item 17 negatively correlated with item from the same factor (*f4*) and, because of a higher coefficient of reliability of this factor (*f4*) it was excluded from further analysis.

By examining the contents of variables that shape factors it is clear that the field of parental pedagogical (in)competence in this sample is described by the factors: (1) lack of knowledge and lack of confidence in educational performance, (2) blaming someone else, and (3) lack of confidence regarding the ability to influence the child on one hand, which are the components of parental pedagogical incompetence, while on the other hand, a feeling of parents' confidence in educational performance, as a result of the content of the variables, marks pedagogically competent parents. The results are in line with the results of previous studies (Bašić, 1993; Ljubetić, 2012).

A competent parent is also responsible for selecting their own educational activities ("I am convinced that I treat my child well"; "When I see that I did something towards my child, it really hurts me"), is confident in their parental performance ("I am convinced that all my actions are for the good of my child."; "I feel confident when I'm being a parent"), sensitive to the needs of the child ("I know by instinct what the child needs"), has a good relationship with the child ("I often feel that my child has a better relationship with me than with others") and does not feel that parenting is a burden but rather a challenge ("Raising a child is not a burden for me").

A parent who "feels" his/her child, builds a quality relationship with him/her, reflects on his/her parenting and responsibly choose child-rearing methods, is the best model for shaping the responsible behaviour of the child, and acquiring and developing vitally important competences.

Research hypotheses

Wishing to determine the (non)existence of statistically significant difference in self-assessed parental pedagogical competence with regard to the gender of the child and to test the first hypothesis, the t-test (Table 2) was performed.

Table 2. Results of t-test to test the difference in parental competence with regard to the gender of the child

Factors	Child Gender	N	M	Sd	t	df	p
<i>f1</i> lack of knowledge and lack of confidence	girl	36	3.60	0.86	0.22	88	0.83
	boy	54	3.56	0.89			
<i>f2</i> confidence	girl	36	1.73	0.74	0.37	88	0.71
	boy	54	1.67	0.58			
<i>f3</i> blaming someone else	girl	36	3.72	0.94	1.19	88	0.24
	boy	54	3.94	0.81			
<i>f4</i> lack of confidence in the influence	girl	36	3.82	0.98	1.69	88	0.1
	boy	54	4.15	0.83			

A review of the results (Table 2) has shown that there is no statistically significant difference at a significance level of $p < 0.05$, within the results of the t-test which confirms H1, which states: *There is no statistically significant difference in self-assessed parental competence with regard to the gender of the child.* It is possible to conclude that the parents feel equally competent for raising male and female children.

The obtained results differ from those obtained in the study by Ljubetić (2007) where a statistically significant difference between mothers and fathers was revealed in relation to the gender of their children, because mothers assessed they were more burdened by parenting when it came to their daughters than sons. The author explains these results by the differences in the traditional child-rearing by gender. According to traditional beliefs, female children are under greater "danger" than male, thus it is necessary to protect female children. On the other hand, the same study revealed there was no statistical difference between fathers in assessing their pedagogical competence with respect to the gender of children. Therefore, Ljubetić

(2007) concludes that fathers raise children, and mothers raise sons and daughters.

It is possible that, as it has been nearly 10 years since the previous research, the perception of parenting has changed and traditional child-rearing by gender is no longer viable, but it is also possible that the differences in parents' responses in the recent research can be attributed to an unbalanced sample of parents by gender.

In addition, the study was undertaken to establish the (non)existence of statistically significant difference in self-assessed parental pedagogical competences with regard to the age of the child. Therefore, the t-test was performed (Table 3).

Table 3. Results of t-test to test the difference in parental competence with regard to the age of the child

Factors	Child Age	N	M	Sd	t	df	p
<i>f1</i> lack of knowledge and lack of confidence	3-5	53	3.61	0.81	0.45	88	0.66
	6-7	37	3.52	0.97			
<i>f2</i> confidence	3-5	53	1.70	0.63	0.15	88	0.89
	6-7	37	1.68	0.68			
<i>f3</i> blaming someone else	3-5	53	3.72	0.86	1.75	88	0.08
	6-7	37	4.05	0.85			
<i>f4</i> lack of confidence in the influence	3-5	53	4.05	0.83	0.4	88	0.69
	6-7	37	3.97	1.01			

The T-test showed that at a significance level of $p < 0.05$ there was no statistically significant difference within the obtained results (Table 3) with regard to the age of the child, which confirms H2 which states: *There is no statistically significant difference in self-assessed parental pedagogical competence with regard to the age of the child.*

This result was somewhat surprising if one takes into account the fact that parents show less confidence in raising older children as parental responsibility increases with the age of the child. Lacković-Grgin (2011) states that a sense of competence and satisfaction with parenting may vary in relation to the developmental characteristics of children, so that young children especially those with a "difficult temperament" increase parental stress. A study by Ljubetić (2007) reveals that mothers of five-year and seven-year old children feel more confident in their parental performance than the mothers of six year-olds. Ljubetić (2007) explains this result by the fact that at that age children are about to start school, so she believes that mothers question their parental achievements more intensively in this period.

On the other hand, fathers also find the child's sixth year of age challenging which also represents a burden to them which the author (Ljubetić, 2007) explains by fathers' lack of knowledge on parenting.

The analysis of the research results, done with the aim of testing the main hypothesis (H_{main}) which states: *Parents assess themselves as pedagogically competent in parenting*, reveals that it is only partially confirmed as evidenced by four extracted factors: factors of pedagogical incompetence (lack of knowledge and lack of confidence in child-rearing activities, blaming someone else, and lack of confidence in the possibility of influencing the child) and factor of pedagogical competences (confidence of parents in child-rearing activities).

It is clear that parents in the sample occasionally or permanently feel incompetent in their parental performance, and the source of that feeling lies in their lack of knowledge (of the child, his/her needs, development, behaviour, playing, learning, etc.) which makes parents feel insecure, which is further supported by a sense of doubt and lack of confidence in the possibility of influencing their own child. It is highly likely that parents mitigate these unpleasant feelings by blaming others ("If I had been better raised, I would have known more how to treat my children", "My child is more demanding than other children", "The most important thing is what we have inherited in the genes" and similar). The results are consistent with earlier studies (Gustović Ercegovac, 1992; Bašić, 1993; Furnham and Weir, 1996; Rogers and Matthews, 2004; Ljubetić, 2007; Mandarić Vukušić, 2016).

Conclusion

Recent research has confirmed a series of past ones, which make it obvious that parents need additional knowledge *of* and *in* parenting that would empower them in their parental roles and provide them with more confidence in their parental performance. A competent parent is confident in his/her parental performance, but at the same time is responsible for the selection of educational methods, and such a parent is precisely what is needed for a complete and healthy development of the child. We believe that parents, if they had more parental knowledge and skills would do their parental role better and make fewer pedagogical errors regarding the child. Therefore, educators at institutions of early and pre-school education (pre-school teachers and professional staff of all profiles) should be the first to offer parents the opportunity of acquiring knowledge (and skill) in parenting to raise their pedagogical competence and act in a more responsible manner in their parental role.

References:

- Anić, V. (2007). *Rječnik hrvatskoga jezika*. Zagreb: Novi liber.
- Bašić, J. (1993). Kompetentnost roditelja za roditeljsku ulogu i socioemocionalni status predškolskog djeteta. *Kriminologija i socijalna integracija*, 1(1), 89-97.
- Dacey, J., Kenny, M. (1994). *Adolescent development*. Brown & Benchmark, Wisconsin – Iowa.
- Delač Hrupelj, J., Miljković, D., Lugomer Armano, G. (2000). *Lijepo je biti roditelj*. Zagreb: Creativa.
- Furnham, A., Weir, C. (1996). Lay Theories of Child Development. *The Journal of Genetic Psychology*, 157(2), 211-226.
- Glasser, W. (2000). *Teorija izbora*. Zagreb: Alinea.
- Gustović-Ercegovac, A. (1992) Prikaz skale percepcije kompetentnosti za roditeljsku ulogu. *Defektologija*, Vol. 28., No. 1/2(suplement)/2. Zagreb, Fakultet za defektologiju, 51-57.
- Janičić Holcer, J. (2007). *Uspješan roditelj, uspješno dijete*. Zagreb: Nika.
- Jurčević Lozančić, A., Kunert, A. (2015). Obrazovanje roditelja i roditeljska pedagoška kompetencija, teorijski i praktički izazovi. *Metodički obzori*, 10 (2), 39-48.
- Juul, J. (2008). *Vaše kompetentno dijete*. Zagreb: Pelago.
- Juul, J., Jensen, H. (2010). *Od poslušnosti do odgovornosti*. Zagreb: Pelago.
- Lacković – Grgin, K. (2011). Doživljaj i praksa roditeljstva u različitim životnim razdobljima. *Društvena istraživanja*, 20 (4), 1063-1083.
- Ljubetić, M. (2007). *Biti kompetentan roditelj*. Zagreb: Mali profesor.
- Ljubetić, M. (2012). *Nosi li dobre roditelje roda – odgovorno roditeljstvo za kompetentno dijete*. Zagreb: Profil.
- Maleš, D., Kušević, B. (2011). *Nove paradigme ranog odgoja*. In: Maleš D. (ed.), *Nove paradigme ranog odgoja*. Zagreb: Filozofski fakultet Sveučilišta u Zagrebu. Zavod za pedagogiju, 41-66.
- Mandarić Vukušić, A. (2016). *Roditeljska kompetencija i (ne)pedagoška zanimanja*. Doktorska disertacija (Unpublished PhD Thesis), Filozofski fakultet Sveučilišta u Zagrebu.
- McClain, L.C. (2013). A Diversity Approach to Parenthood in Family Life and Family Law. In: L.C. McClain and D. Cere (eds.): *What is Parenthood? Proposing Two Models . What is Parenthood? Contemporary debates about the Family*. New York: New York University Press, 41-64.
- Milanović, M., Stričević, I., Maleš, D., Sekulić - Majurec, A. (2000). *Skrb za dijete i poticanje ranog razvoja djeteta u Republici Hrvatskoj*. Zagreb: UNICEF – Ured za Hrvatsku i Ministarstvo prosvjete i športa Republike Hrvatske, Targa.

Petani, R., Kristić, K. (2012). Komparativni pristup programima osposobljavanja obitelji i potpori roditeljima. *Pedagoška istraživanja*, 9 (1-2), 117-128.

Rogers, H., Matthews, J. (2004). The Parenting Sense of Competence Scale: Investigation of the Factor Structure, Reliability, and Validity for an Australian Sample. *Australian Psychologist*, 39(1), 88-96.

Stacey, J. (2013). Uncoupling Marriage and Parenting. In: L.C. McClain and D. Cere (eds.): *What is Parenthood? Contemporary debates about the Family*. New York: New York University Press, 65-84.

Stričević, I. (2011). *Jačanje roditeljskih kompetencija kroz programe obrazovanja roditelja*. In: Maleš, D. (ed.), *Nove paradigme ranog odgoja*. Zagreb: Filozofski fakultet Sveučilišta u Zagrebu. Zavod za pedagogiju, 125-148.

Vučković, A. (2000). *Pojam odgovornosti*. In: Vuleta, B. and Vučković, A. (eds.), *Odgovornost za život*, Split: Franjevački institut za kulturu mira, 17 – 30.

Community Response, Preparedness and Disaster Risk-Reduction

A Case Study of Manipur Floods 2015

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Abstract

The flood of 2015 affected entire Thoubal district and parts of Chandel district in Manipur state of India. According to the government reports, nearly 600 square kilometers of area with over 500,000 populations were affected in the Thoubal and Chandel districts. Majority of the population in the flood affected area are farmers, whose paddy crop cultivation was destroyed and it also affected crop production for the next year due to acute shortage of seeds. Fisheries farms got submerged and people lost livelihood opportunities. Animal life also suffered due to inundation of inhabited plain areas for several days. The market and shops were closed and many were submerged for at least one week. Since it was the season for agricultural plantation, the farmers also suffered from food security for the entire season.

The present study examines causes and consequences that lead to the worst floods of July- August 2015 in the plains of Manipur state. The paper also examines the level of local community response towards prevention and preparedness and disaster risk-reduction. The study indicates the lack of protective and preparedness measures, while dealing with such magnitude of floods hazard.

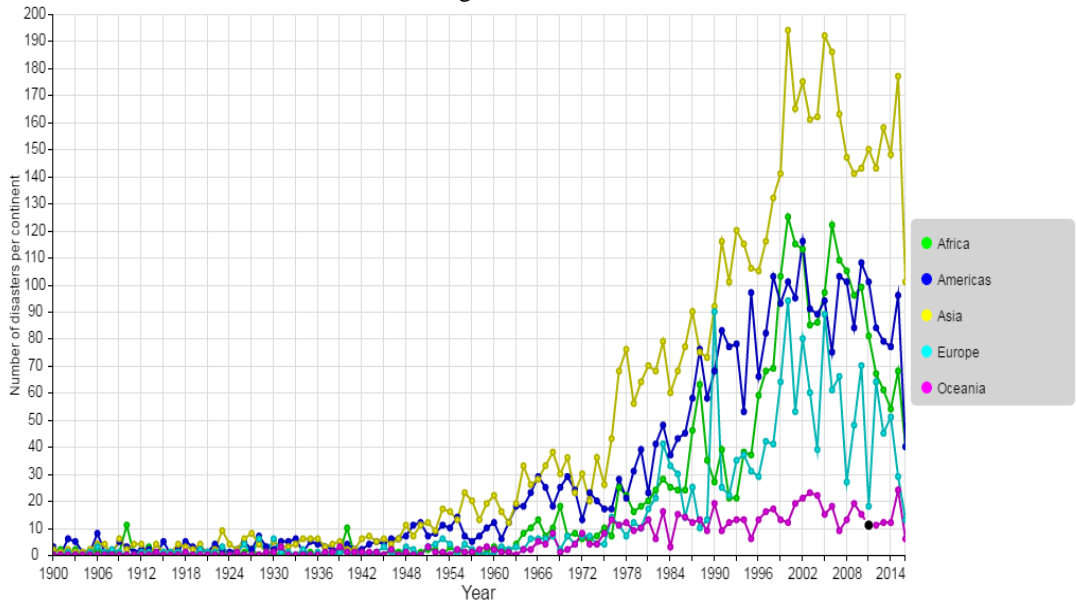
Keywords: Vulnerability, livelihood opportunities, Prevention and preparedness, Disaster risk- reduction, Community resilience

Context

An increasing frequency and trends of both natural and manmade disasters Globally especially in under-developed and developing societies has been taking place (Refer Fig. No 1). The frequency and severity of weather- and climate-related hazards has changed, exposing more people and a greater value of assets to disasters. Climate-related disasters due to

anthropogenic activities are becoming frequent that negatively impacting development progress across the world.

Fig. No. 1



EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Universite Catholique de Louvain, Brussels - Belgium

The frequency of all types of hazards in India during last one century has also increased significantly. These hazards have resulted in severe disasters, leading to huge loss of life and total economic damages. A large number of people have been affected by these disasters. (Refer Table No 1)

Table No 1

Disaster Type	India- Disaster Profile (1900- 2016)			
	Events Count	Total Deaths	Total Affected	Total Damages '000'US\$
Drought	15	4,250,320	1,391,841,000	2,441,122
Earthquake	32	78,315	28,565,623	5,222,700
Epidemic	62	4,543,581	325,476	N.A
Extreme Temperature	57	17,562	250	544,000
Floods	316	72,334	849,958,256	57,715,188
Landslides	48	5,000	3,848,321	54,500
Storm	142	162,178	102,573,969	20,191,996
Wildfire	2	6	0	2,000

Source: EM-DAT, CRED International Database (December 1, 2016)

Map No. 1
Natural Hazards Prone Regions of India



Source: www.mapindia.com and National Disaster Management Authority of India

India is prone to several hazards especially draught, earthquakes, floods and cyclones. (Refer Map No. 1)

Floods have been one of the major disasters in India leading to nearly 72,334 deaths and huge economic damages during last one century. More than 50 million people have been affected by floods in India during last one Century.

The present study examines causes and consequences that lead to the worst floods of July- August 2015 in the plains of Manipur state. The study evaluates the status of disaster preparedness, response and rehabilitation undertaken by State Disaster Management Authority of Manipur. The study also examines the community response and disaster risk reduction measures adopted by the state for future disaster eventuality. The present study is based on observations and information collected during the field visits. A field visit was also conducted on 10th April 2016 in District Thoubal and District Chandel. Several sites including Vanzing Tentha village in Thoubal District and Rungchang Chakpikarong village in Chandel district of Manipur were visited. These two villages were flooded during July- August 2015.

Flood History of North East India Region

India's Northeastern Region consists of eight states, namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. With a total population of 45.53 million (2011 census) and an area of 262,179 square kilometers, the Northeastern Region is relatively sparsely populated compared to much of the rest of India. However, population density varies widely among the northeastern states. Assam and Tripura are the most densely populated followed by Meghalaya and Manipur, while Arunachal Pradesh is the least densely populated (17 persons per square kilometer). (Refer Table 2 and Map No.2)

Table No 2

Comparative Status of North East States and India					
States	Population(as per Census 2011)	Area(Sq Km)	Percentage All India		Person(per Sq Km)
			Population	Area	
Arunachal Pradesh	1,382,611	83,743	0.11%	2.54%	17
Assam	31,169,272	78,438	2.57%	2.38%	397
Manipur	2,721,756	22,327	0.22%	0.67%	122
Meghalaya	2,964,007	22,429	0.24%	0.68%	132
Mizoram	1,091,014	21,081	0.09%	0.64%	52
Nagaland	1,980,602	16,579	0.16%	0.50%	119
Sikkim	607,688	7,096	0.05%	0.21%	86
Tripura	3,617,032	10,486	0.29%	0.31%	345
Total NE	45,533,982	262,179	3.07%	7.97%	174
All India	1,210,000,000	3,287,263			374

Source: Census of India, General Population Tables

Natural Hazards and Disasters in North East States

Owing to its specific geo-climatic, geological and physical features, North Eastern Division (comprising of 8 states) are vulnerable to all major natural hazards (Drought, Flood, Cyclone, Earthquake, Landslides, fires etc.). Map No.2 depicts the natural hazards vulnerability regions of India. The North-East states being mountainous topography is also vulnerable to the occurrence of other technological/human caused hazards such as transportation accidents, human induced landslides and terror attacks. Human intervention in terms of development programmes without taking into account carrying capacity of the area, use of appropriate technologies in sync with the natural eco system and local requirements in this fragile eco-system has made the region vulnerable to disasters.

Floods Vulnerability in North East Region

Brahmaputra and Barak river basin falling in the North East Division of India are among the most flood prone areas in the world. The Brahmaputra River flows through Assam from east to west over a length of approximately 650 kilometers. Its main branch originates in the Tibetan plateau, flowing from west to east as the Tsangpo River, and then turns south through the eastern Himalaya as the Dihang River to enter Assam, where it is joined by other branches to form the Brahmaputra. The Barak River rises in the Indian state of Nagaland at an elevation of approximately 2,300 meters and passes through the Manipur Hills of Manipur state over a river length of nearly 400 kilometers. It then flows generally westward from Lakhimpur through the Cachar Plains region of Assam over a river length of approximately 130 kilometers to enter Bangladesh near Bhanga.

Map No.2
North Eastern States of India



Flood in Assam, Manipur and Tripura (Three states of North East Division) are characterized by their extremely large magnitude, high frequency and extensive devastation. This natural hazard repeats itself every

year and not only costs lives but also affects the economy of the state, which is largely agricultural. Flood is not a new phenomenon in these three states. (Refer Table No.3)

Frequency of occurrence of floods in Brahmaputra and Barak river basins during last 100 years clearly show that these two river basins have recorded excess water discharge and floods. (Refer Table No. 4)

Flood Vulnerability in Manipur

About two third population of Manipur state (1.79 million out of 2.72 million populations, as per Census 2011) is concentrated in the Manipur Valley surrounded by mountain hills, (Manipur valley constitutes only about 8.2% of the state area). Rivers from these mountain hills flow into valley and very often lead to flash floods and landslides during rainy seasons in the mountain areas and flood the plain areas. (Refer Map No.3) All the major river systems of Barak River in the State are vulnerable to flash floods/flooding during rainy season, as captured in the Vulnerability Atlas of Manipur state.

Floods in Manipur Valley is primarily due to heavy rainfall in the upper catchment areas. Intensity of rainfalls is higher in the hilly region than in the plain region. Thus Manipur Valley has large upper catchment area where rainfall is normally high. These good amounts of rainfall feed many streams and rivers, which finally drain, through Manipur Valley (Refer Map No. 4). In the hilly region very steep slopes occupy the major portion. The denuded land due to deforestation in the hilly areas enhance more erosion and run off conditions. There are many vulnerable points along the riverbanks of the major rivers of Manipur Valley, which get breached every year during rainy season. In these areas; erosion, sliding and slumping of the banks are common.

Table No 3.

Major Floods in Barak Rivers Basins 1990-2015

Date and Year	Remarks
First Week of August 2015	The state has witnessed moderate to heavy rainfall in the first week of August 2015, with several rivers flowing above the danger mark. The flood washed away bridges and national highways besides rendering thousands of people homeless in Manipur. Low-lying areas. The flood also inundated the capital city of Imphal and its outskirts.
August 2002	Severe flood occurred in Manipur valley in August 2002. Breach of embankment took place at 59 places. Due to incessant rain in the catchments, all the rivers flowing in and around Imphal, Thoubal and Bishnupur districts were rising from August 11, 2002. On August 13, 2002, the water levels in all major rivers/streams in Manipur valley were rising alarmingly crossing the R.F.L on the same day. The flood mainly occurred in the south eastern parts of Manipur valley. About 10,000 houses and 20,000 hectares of paddy fields were affected.
June- July 2001	Flood of low magnitude occurred in some parts of Manipur Valley. On 7th June breach of embankment of Nambol River took place at Nambol, Kongkham: inundating Kongkham, Sabal Leikai, Maibam and Naorem.

- September 2000 Flood occurred in Manipur Valley in September 2000. Breaches of river embankment take place at 30 different places. Not less than 2,400 houses and 7,800 hectares of paddy field were affected. Breaches of river embankment take place at 11 places of Thoubal River, 6 places of Wangjing River, 2 places of Arong River, 2 places of Sekmai River and 3 places of Manipur River. The flood was of moderate magnitude.
- September 1999 There was incessant rainfall from 24th August to 3rd September 1999. The flood mainly affected the southern parts of the Valley. Not less than 7,300 houses and 15,300 hectares of paddy fields were affected.
- July, August 1998 Flood occurred in the Valley in July 1998 affecting some areas of Iroisemba. In August, breach of river embankment took place at one place of Wangjing River, as a result inundating the areas of Lamding Nashikhong, Lamding Laishram Leikai and some adjoining areas.
- September 1997 Flood occurred in Manipur Valley in September 1997. All the rivers flowing through Manipur Valley were rising rapidly from 25th September 1997. Breaches of embankments took place at four different places of Nambul River, two places of Wangjing River, one place of Merakhong River, two places of Imphal River, two places of Thongjaorok River, one place of Khujairok River and one place of Khabi River. Due to the flood, damage caused to houses rose up to 4965 numbers. The flood was of high magnitude.
- October 1992 Due to the incessant rainfall in the upper catchment area of the major rivers of Manipur Valley, water level of all the rivers rose rapidly. The daily precipitation in the form of rainfall on 14th, 15th and 16th October 1992 was very high and heavy discharge occurred in the rivers and caused breached, overtopping and piping at some of the places.

(Source: Manipur State Disaster Management Plan, Vol I and Reported by Earth Sciences Department, Manipur University, Canchipur, Imphal)

Table No.4
Frequency of Rainfall

Year	Brahmaputra River Basin		Barak River Basin	
	Excess	Deficient	Excess	Deficient
1901–1910	1	0	2	0
1911–1920	1	1	1	1
1921–1930	2	1	2	0
1931–1940	3	2	1	0
1941–1950	1	0	3	1
1951–1960	1	0	0	2
1961–1970	1	3	0	4
1971–1980	1	2	2	1
1981–1990	4	0	3	1
1991–2000	0	4	1	0
2001–2010	1	4	0	5

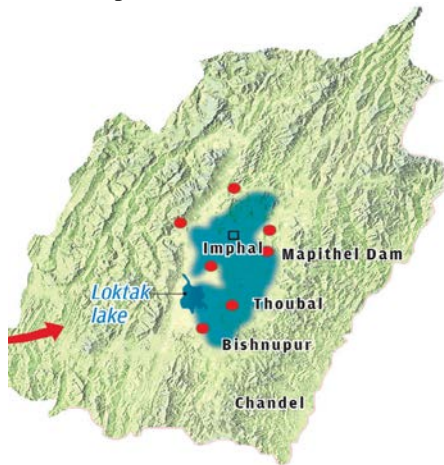
Source: R. L. Deka & C. Mahanta & H. Pathak & K. K. Nath & S. Das, Theor Appl Climatol (2013) 114:61–71

All the major river systems in the State are vulnerable to flooding, as captured in the Vulnerability Atlas²³ (Refer Map No.4). The high stream velocity of the Thoubal river causes breaching of river banks

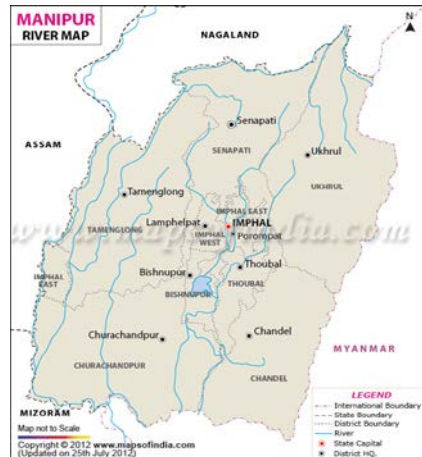
²³ Ibid.

at Okram, Sabaltongba, Khekman, Ningombam, Leishangthem, Phouudel and Haokha.²⁴ The confluence of the Imphal river with the Iril river at Lilong, makes it voluminous and rapid, causing the breach of embankment in Chajing, Haoreibi, Samurou and Lilong²⁵. Khuga River flows through strong to steep slope. Hence river velocity is moderate to high, creating flood problem in Kumbi and Ithai Village. The Chakpi River meets the Manipur river at a reverse direction causing flood in surrounding areas of Sugnu extending up to Wangoo, during rainy season. Most of the embankments are poorly maintained. Many vulnerable points in Imphal river Thoubal river and Iril river were identified for prone to flooding due to river channel encroachment. The rapid increase in the valley's built-up areas is also an important factor for the recent increase in flash floods in urban areas.

Map No 3
Manipur State – Relative Relief



Map No 4
Manipur State- River System and Network



Source: Down to Earth – August 2015 and Manipur State Disaster Management Authority

In addition to meteorological factors like; the intensity and amount of rainfall and other forms of precipitation, during specific period, flood vulnerability is affected by the structural and non structural parameters like;

Structural and non structural measures include;

- Structural design and maintenance of, embankments/banks, flood walls, flood levees,

²⁴ Manipur State Disaster Management Plan, Vol I and Reported by Earth Sciences Department, Manipur University, Canchipur, Imphal

²⁵ Manipur State Disaster Management Plan, Vol I and Reported by Earth Sciences Department, Manipur University, Canchipur, Imphal

- Channel improvement desilting/dredging of rivers, dams, reservoirs and other water storages,
- Drainage improvement, diversion of flood water, catchment area treatment/afforestation, anti-erosion works,
- Alignment, location, design and provision of waterway i.e. vents, culverts, bridges and causeways in national highways, state highways, district and other roads and
- Railways embankments and inspection, rehabilitation and maintenance
- River channels should be free from encroachments.

River flooding is a regular hazard faced by the State, but it has usually manifested into disaster during last few years, due to drainage failures in urban areas, increased run-off loads in hard surfaces, due to large scale deforestation causing increasing erosion capacity of flowing water, illegal encroachment of river channels and engineering defective construction of dams and bridges, creating barriers in the free flow of excessive water during heavy rainfall in catchment areas. Other identified causes of floods in Manipur valley, includes poor urban drainage, deforestation, breaching of river banks, improper damming and their poor maintenance, sediment pollution, siltation, shallowing of river beds and lakes, changing of land-use pattern, vanishing of traditional recharging structures and water bodies. Earlier various lakes of Manipur, mostly located in the southern part of the valley, served as effective reservoirs of excess runoff. Most of the lakes are severely degraded in quality to the extent of complete disappearance resulting in severe curtailment of their water holding capacities.

Manipur State Flood Disaster 2015

Manipur witnessed worst ever floods in July- August 2015, as large area in Imphal, Thoubal, and Chandel districts were inundated for nearly 10-15 days due to heavy rainfall from 29th July to 2nd August 2015. According to GIS map a large area of Imphal, Thoubal and Chandel districts were inundated for near 15-20 days. (Refer Map No.3 Inundated area due to floods in 2015)

Surprisingly neither the national media nor state media reported the worst flood that affected entire Thoubal district and parts of Chandel district according to affected people. This is said to be the worst flood in last 200 years. The Asian Highway No 1, connecting Imphal and Moreh- Myanmar was affected and remained cut off for nearly 10-15 days. The old bridge at Pallel was damaged and the lone and newly constructed Pallel Bridge, yet to open had been affected. Chakpi River in southern Chandel district washed away the lone Chapikarong bridge. The Chakpi River flooded the entire

Serou region in southern part of Thoubal district. The worse affected areas in Thoubal district were Kakching sub-divisional areas, Wabagai-Hiyangalam and Sugnu and Serou area in Thoubal district. According to the government reports nearly 600 square kilometers of area with over 500,000 populations were affected in the Thoubal and Chandel districts²⁶.

Majority of the population in the flood affected area are farmers, whose paddy crop cultivation was destroyed and it also affected crop production for the next year, due to acute shortage of seeds. Fisheries farms got submerged and people lost livelihood, as animals, poultry and piggery in domestic homes are the sole source of livelihood for most of the villagers, which were also destroyed. The market and shops were closed and many were submerged at least for one week. Since it was the season for agricultural plantation, the farmers had suffered food security for the entire season. The inundated area of Manipur in 2015 floods is also known as the rice bowl of Manipur that produce large quantity of agricultural products, not only for the region but also for the entire state. Hence floods in 2015 created food scarcity condition for the state.

Failure to adhere to the basic tenants of both structural and non-structural measures mentioned above attributed to the floods of July- August 2015 in Manipur State. The observations from the field visits and discussions with flood victims brought out the following major reason for flood devastation of July- August 2015, which could have been avoided, if appropriate measures and steps were taken by government, community and state disaster management authorities

Flood July- August 2015 in Manipur Valley



²⁶ Discussion with the District Authorities held during field visit.

Major Causes of Flood Disaster in Manipur Inadequate Carrying Capacity of Rivers due to illegal encroachment of river channels

All the major rivers of Manipur state after the confluence of the rivers from hilly areas meeting in the plain areas have inadequate carrying capacity in the plain areas. The capacity of the river channels in the plain areas has been reduced further from its original capacity owing to illegal encroachment of land for commercial agricultural activities (banana cultivation- See photograph taken during the field visit), construction of illegal buildings on the edge of river channels and continuous siltation of these rivers, raising the water levels of rivers. After the discussion with community and government staff, it was observed that de-siltation of river channels and maintenance of embankments has not been undertaken for a long time in Manipur. Instead community members have been allowed to encroach the river channels for commercial agricultural activities. These agricultural activities have created barriers in the free flow of water, during heavy rainfall season. All the three major rivers in Manipur proved insufficient to accommodate the enormous discharge of floodwater in July- August 2015. The floodwaters of such enormous volume led to the inundation of plain areas of Thoubal and Chandel districts in Manipur, due to breaches in the embankments as well as damming conditions created by land encroachments and defective engineering structures.

Heavy discharge of water from dams constructed in and around the Manipur valley, due to poor maintenance and leakage from Dams were also mentioned as a major cause of flooding during the periods of July- August 2015. Maintenance of dams and regular maintenance of embankments/ banks/ river walls has been ignored since a long time in the state. Discharge from these dams and tributaries of the major river systems of Manipur state simultaneously brought down water with enormous force and high speed in the river channels. This made it difficult to manage the floodwater.

Encroachment of River Channel for commercial agriculture(Thoubal River)



Banana Cultivation in the river channels of Thoubal River



Photographs taken on 10th April 2016 by Research Team of DRP-JN
Defective Structural Design of the Old Bridge at Rungchang Chakpikarong village in
Chandel district

Due to continuous rainfall for four days in the higher catchment area of surrounding mountain hills of Chakpikarong village, huge trees and wooden logs were brought down by the river Chapki from higher reaches. These trees, eroded soil and wooden logs brought down by the river Chapki was blocked at the old bridge of Chapki river due to defective structural design of the bridge (like; huge and wide pillars closely spaced). This blockade created conducive damming condition. According to the flood victims the new bridge was constructed 5 years earlier at the same point but due to state governments lethargy, the old bridge was not dismantled, in spite of several repeated requests from the community. (Refer Photographs below)

Old bridge and New bridge standing side by side for last 5 years with no purpose



Structural Design defect of Old bridge created Dam Conditions during July- August Floods 2015



Owing to the poor maintenance of embankments, flood walls and flood levees of old bridge, the Chapki river was blocked at the old bridge for several days. This stopped the free flow of water through old bridge and water started rising backwards, flowing over the water channels and inundating village Rungchang and other adjacent villages. Since the village is flat surfaced, thus the flood water inundated many villages downstream for 10-15 days. All the low lying areas were completely inundated. People were vociferously of the opinion that due to negligence of the government in demolishing the old bridge on Chakpi river, where new bridge had been already constructed, had caused floods of 2015 in the village and its surrounding areas

Unabated urban expansion

Imphal city has been expanding fast, converting many wetlands and water bodies into dwelling units. In this process of expansion, even the flood spill channels have been encroached upon and residential colonies have come up closer to water bodies. During the floods of July- August 2015, these areas were the worst affected. Floodwaters followed the natural path and inundated whatever came in their way.

Excessive and unabated deforestation in the Manipur Hills and its tributary basin

During last three decades, Manipur has been denuded from forest cover by human intervention on a large scale. Forest rights given to the tribals have often been misused for commercial felling of trees. The excessive deforestation in the hills and its tributary river basins has increased

erosive capacity of rivers and increased siltation in river channels and water bodies, thereby increasing water levels in these river channels and water bodies. Unfortunately, no efforts were made towards channel improvement, desilting / dredging of rivers and other water bodies like; wetlands, lakes, etc;

Disaster Management and Risk Reduction Policy

Sendai Framework of Action has rightly endorsed Disaster risk-reduction management (DRM) through community resilience measures as a key to reduce the disaster related affects. DRM is therefore the key to minimize the human fatalities, loss of building and other construction and infrastructure structures, agricultural crops, loss of animal and livestock. Mainstreaming disaster risk-reduction management within the policies and programmes of different sectors ensures that the effects of disasters are minimized. At the same time, it enables governments to ensure that these policies and programmes do not put people at risk. According to the UNISDR- 2009, DRM is

“the systematic process of using administrative directives, organizations and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster

“People are already experiencing the impacts of climate change through slow onset changes, for example sea level rise and greater variability in the seasonality of rainfall, and through extreme weather events, particularly extremes of heat, rainfall and coastal storm surges”.²⁷ At the same time, economic damage from climate-related extreme events and disasters has increased dramatically in the last 50 years, with developing country economies being particularly badly hit.²⁸ There has been significant rise in economic losses from disasters for the Asia and Pacific region.²⁹

While it is clear that climate- and disaster-related shocks and stresses undermine economic growth and development, there are many actions that governments and other agencies can take to reduce the risks to lives,

²⁷ IPCC (2012) ‘Summary for policymakers. Managing the risks of extreme events and disasters to advance climate change adaptation’, in C.B. Field, V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor and P.M. Midgley (eds) Special report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge, UK, and New York: Cambridge University Press (www.ipcc-wg2.gov/SREX/images/uploads/SREX-SPMbrochure_FINAL.pdf)

²⁸ Ibid, pp, 7

²⁹ Ibid, pp, 7 and UNESCAPUNISDR (2012) Report.

livelihoods and economies.³⁰ Poor people suffer the most from disasters, as they lack the capacity and resources to effectively cope with disasters. Risk management in policies and programmes, to reduce disaster risk reduction is vital for helping to ensure that the most vulnerable people can access the benefits of development.³¹ Some people see mainstreaming as a way to realize certain human rights, including the right to safety.³² The impetus for mainstreaming risk in development can also be linked to a government's fiduciary responsibility; Jackson makes this point when he notes that mainstreaming risk is a government's "duty to their citizens to maximise the utility of the public resources disposable to them, similar to a private company's fiduciary duty to maximise value to shareholders".³³

Floods being the most common natural disaster, people have, out of experience, devised many ways of coping with them. On account of frequent occurrence of floods since times immemorial, people have learnt to live with them. They have generally set up settlements away from frequently flooded areas, which have been used for other activities such as agriculture, grazing of cattle etc. The crops that can sustain submergence are grown in the flood prone areas, during rainy season. However, encroachments into the flood plains over the years have aggravated the flood problem and a need to take effective and sustained flood management (FM) measures has been felt. FM measures include both structural and nonstructural. If these FM are in place a considerable protection towards DRM can be ensured for the protection from human fatalities, loss of building and other construction and infrastructure structures, agricultural crops, loss of animal and livestock.

The assumption that it is more expensive to invest in disaster-resilient development, such as drought-resistant crops and flood proofed roads, disaster resilient shelters has not been corroborated with evidences. In fact a cost-benefit analysis for the housing sector shows, this is not always the case. The cost of building homes that can withstand floods is far lower than the cost of repairing homes that cannot stand when a flood does hit. Results have shown that costs of building flood resilient structures, houses and

³⁰ Ibid, pp 54

³¹ Mitchell, T. and Tanner, T. (2006) *Overcoming the barriers: mainstreaming climate change adaptation in developing countries*. London: Tearfund.

³² Kent, G. (2001) 'The human right to disaster mitigation and relief', *Environmental Hazards* 3(3): 137–138; Khan, D. (2013) 'Opinion: integrating climate-smart DRM in key sectors – what does it take?'. London: Climate and Development Knowledge Network (<http://cdkn.org/2013/06/opinion-integrating-climate-smart-drm-in-key-sectors-what-does-it-take>); Bahadur, A. (2008) *Accountability for DRR*. IDS Research Report for Christian Aid. Brighton: Institute for Development Studies.

³³ Jackson, D. (2011) *Effective financial mechanisms at the national and local level for disaster risk reduction*. Geneva: United Nations Office for Disaster Risk Reduction (www.unisdr.org/files/18197_202jackson.financialmechanismstosup.pdf).

cultivating flood resilient agricultural crops can be minimized with use of modern technology.

Flood Disaster Management in Manipur: Preparedness, Response, Damage Assessment and Rehabilitation: Sample Survey Results

Manipur state has long history of flood management strategies through local traditions like widening of river channels and clearing river channels from wastes but such measures have been stopped by the community to increase incomes through illegal encroachments of river channels.

Although Manipur state had a historical record of flood management, yet surprisingly the state has remained a blind spot, in both the Central Water Commission and Indian Meteorological Department's monitoring and flood forecasting establishments. The Central Water Commission (CWC), India's premier water resources body that is responsible for flood forecasts and related advisories to states, had no forecast for any place in Manipur during July- August 2015 floods. This was despite the fact that the India Meteorological Department website clearly indicated heavy rainfall in the state.³⁴ Unfortunately the subject of flood control, unlike irrigation, does not figure as such in any of the three legislative lists included in the Constitution of India. The primary responsibility for flood control thus lies with the states.

The flood disaster management policy of Manipur is completely dependent on Central government. Manipur State Disaster Management Authority (SDMA) is still in its infancy stage Unfortunately the provisions of Disaster Management Act 2005 and Disaster Management Policy 2009 have not made progress in the state. The preparedness, response and recovery and rehabilitation to July-August 2015 flood disaster, indicated that no efforts have been made to institutionalize Disaster Risk Reduction into governance, as envisaged in Disaster Management Act, 2005 and National Disaster Management Policy, 2009. Disaster Risk Reduction (DRR) has not been mainstreamed into development planning to build capacities and promote effective institutional mechanism and promote community based DRR. Even the research has not been promoted for an effective, well coordinated and timely preparedness and responsive system.

The State government and administration was caught unawares and once Manipur valley was flooded during July-August 2015, the State machinery officials, police and military were paralyzed. Flood victims could not be rescued for nearly a week nor could they be provided with any relief

³⁴

<https://sandrp.wordpress.com/2013/06/25/central-water-commissions-flood-forecasting-pathetic-performance-in-uttarkhand-disaster/>

material like drinking water, food, clothes, and medicines- all basic essential requirements for life. The state government and SDMA made no efforts to requisition boats, life jackets for rescue of marooned victims. Moreh, a town on the India-Myanmar border, and Jiribam were completely cut off from the rest of the state due to landslides caused by flash floods triggered by the heavy downpour. Normal vehicular movement along the Imphal-Jiribam section of NH-37 had been disturbed after damages were caused to a bridge on Barak river. Since the area was cut off from rest of the Manipur valley, the community had to depend on local support without food supplies and essential subsistence requirements. Animals of the village were wiped out and food scarcity was common feature for many months.

Detailed discussion was held with Manipur State Disaster Management Authority (SDMA) and district administration of Thoubal and Chandel districts, to understand the steps and efforts made for the flood disaster preparedness and management. Present preparedness of the SDMA has been assessed after seeking key information from the authorities.

A sample survey of flood victim respondents was conducted to assess the preparedness, response, damage assessment and rehabilitation measures undertaken by state government authorities, community and civil society organizations. Vanzing Tentha village in Thoubal District and Rungchang Chakpikarong village in Chandel district were selected for the survey. These two villages were flooded during July- August 2015. (Refer Annexure-II) .

Table No 5 depicts the characteristics of respondents selected for the survey. The survey was conducted among 20 male and 10 female respondents. These respondents represented diverse age and occupation groups.

Table No 6 depicts the perception and preparedness of disaster management among the community after the 2015 flood disaster.

Table No 5

Areas/ Localities	Sample Survey Respondent Characteristics							
	Sex		Age Group			Occupation		
	Male	Female	< 20	20- 40	40 +	Service	Trade	Agri
Thoubal District	10	5	1	8	6	3	2	10
Chandel District	10	5	1	7	7	2	5	8
All Areas	20	10	2	15	13	5	7	18

Source: Field Survey by Research Team at Thoubal and Chandel District of Manipur April – June 2016

Key Findings

Field observation at the survey site clearly reflected that Thoubal River has been encroached by villagers for banana cultivation which has hindered the free flow of discharge of rain water. Discharge from dams located in the Manipur valley due to structural defects also released water in the rivers in plain areas. Village Chakpikarong located at the foothill of the surrounding mountain ranges had never witnessed flooding in the past memory of the people. In fact, the village is located at higher elevation and is not prone to flooding. The village was flooded on 29th July 2015 midnight. The water entered the village from western side and on 30th July havoc was in store for the village. It rained continuously for 4 days. Debris brought down by the river from higher reaches (tree trunks, stones, boulders, mud and branches of tree) was blocked at Chapki old bridge creating damming condition. These manmade barriers in the river channel hindered the free flow of excessive water supply in the river because of continuous rainfall during July- August 2015 flooding. Unfortunately, neither government nor community has learnt any lessons from the past floods.

Field observations and information collected in both village of Chakpikarong, District Chandel and village Vanzing Tanthi of Thoubal district are tabulated (Refer Table No 8) ³⁵ . Major key findings from the study as stated by the respondents and based on field observations are as follows:

- There was no early warning by government, regarding the floods. For one week, the inundated areas remained cut off. There was no disaster preparedness for the floods of July- August 2015 in Thoubal and Chandel districts. The government was totally unprepared to face such disaster.
- Major cause of sudden flooding disaster of large areas in the plains of Manipur state was due to manmade actions like deforestation, encroachment of land for cultivation and other buildings in the existing river channels and defective construction practices of dams and bridges without any maintenance services. These human activities created artificial barriers in the way of free flow of river water.
- Government response to rescue people, affected by floods was slow and weak. Communities, local civil societies and local clubs were more responsive to help people immediately after the flood disaster. People with support from local communities shifted to more secure areas and some food was made available to them. Immediate relief in terms of makeshift shelter, food, drinking water, and clothing were slow from government authorities.

³⁵ Detailed discussion was held with Mr.N.L. wangam (aged 75 years), Village head, Mr. H.B. chumvol (aged 51 yrs), Village Authority member and group discussion with villagers and in particular with Women Groups.

In the 'relief camps' people had nothing to sleep on except for a piece of cloth and men and women, boys and girls all cramped together.

- The roads damaged during 2015 floods were yet to be repaired completely. In fact government's pathetic actions towards stopping land encroachment in the river channels were a measure causes for sudden inundation of areas in both districts. In spite of community appeals to demolish the old bridge on river Chapki, no action was taken by government until our field visit. This manmade disaster in the village inundated the area for 10 days, forcing people to move to higher reaches and live in makeshift and tented accommodations.

(Refer Photographs below depicting poor maintenance and engineering structural defects, Photographs show that debris brought down by river was blocked by the old bridge, creating dam. The debris was still not cleared even after 9 months. Villager fear that this might be another alarm for flood in 2016, if the old bridge is not demolished)

Photograph taken by Research Team 10th April 2016



- Response from government was weak, even after one month of the floods, inundating large habitable settlements. Community lost complete agricultural season without any agricultural activity, the main source of their livelihood for the whole agricultural season. Little support from NGO's and Government in terms for food, lead to a situation of borrowing of money from money lenders at annual interest rate of 24%, to sustain their basic livelihood levels and basic food security requirements. The borrowed money along with high interest rates are pushing them into vicious circle of poverty.

Angry locals have alleged that the state government has not done enough to help those affected by the floods in terms of quick response, relief and rehabilitation.

- The floods affected the subsistence and basic livelihood opportunities of affected people as growing agricultural season was disturbed due to water logging and sediments in the fields even during next agricultural season. Community stated, that the cascading effects of borrowing money from money lenders at high interest rates, still continue and government rehabilitation package is still awaited. People have to repay their loans with high interest rates.
- Government support in terms of MGNERGA, food security scheme and IYA has been very slow due to weak response of conducting survey for the identification of victim's property, animal and agricultural losses. Even after nearly one year no major rehabilitation package has been given to affected people.
- The government has not even identified any emergency operation sites for safety in case of emergency situation in the current year or in future years.
- However, people felt that they were better prepared to face any eventuality as there is a strong sense of solidarity among the community with support from civil society organizations.

Field visit observations and discussion with flood victims in the selected villages conducted on 10th April 2016 was conveyed to the State Disaster Management Authority for necessary steps to be taken to avoid any such eventuality of flood disaster in the year 2016. District authorities were requested to demolish the old bridge immediately as the villagers were firmly of the opinion that another disaster is waiting in 2016, if the bridge is not demolished and the existing dams repaired and maintenance of the dams ensured. It is heartening to note that the old bridge has been demolished at our suggestion giving a much needed relief to the inhabitants of the village. (Refer Photographs below).

Another recommendation of the visiting team was to distribute the relief funds to the victims immediately, so that the loan drawn at a high interest rate by the victims could be returned back to save them from the vicious circle of poverty. Orders have been issued for the release of the relief fund.

Photograph of Demolished Chapki Bridge (Photographed on 25th June 2016)

Table No 6
 Surveyed Respondents in Thoubal and Chandel District
 Perception of Preparedness of Disaster Management(Percentage)

Area/ Locality	July- August 2015 Percentage	Present Time Percentage
Installed Early Warning System	No Idea 100%	No Idea 100%
Appropriate Awareness created about flood eventually by Government	Yes 5%	Yes 30%
Awareness about flood eventually by Civil Society/ NGOS	Yes 20%	Yes 60 %
Awareness through mock drills by Government	Yes 5%	Yes 15%
Knowledge of Rules and Regulations in place like not to construct around river channels/ flood channels	Yes 10%	Yes 35%
Implementation status of such rules	Yes 5%	Yes 25%
Knowledge of de-silting and drudging activities of government for river channels/ flood spill channels	No 5%	No 15%
Implementation of de-silting and drudging activities of government for river channels/ flood spill channels	Yes 5%	Yes 15%
Your perception on implementation of rules and regulations for the removal of unauthorized and illegal constructions around river channels/ flood channels	Good 5%	Good 15%
Do you have any knowledge of any safety audits in place by government to avoid flooding in the flood prone areas	No Idea 100%	No Idea 85%
Did you observe or have knowledge of steps taken by government to strengthen flood protection walls/ strengthen bunds Yes / No	No Idea 90%	No Idea 80%
If yes how would you rate its implementation		
Do you have/ had any knowledge that government has identified Emergency Operation Services or safe areas of evacuations in case of emergency at the time of disasters	No Idea 100%	No Idea 85%
How would you rate the overall preparedness of Government to face any such eventuality in future	Good 5%	Good 10%
How would you rate the overall preparedness of community themselves to face any such eventuality in future	Good 10%	Good 80 %

Source: Field Survey by Research Team at Thoubal and Chandel District of Manipur April – June 2016

Recommendations

- Strengthening the flood infrastructure in the Barak Basin to cope up with the probability of next extreme flooding event of the magnitude observed in 2015. This includes the preparation of an integrated DPR for the construction of the alternate flood channel for increasing the carrying capacity of the main tributary rivers with main rivers in the plain areas of Manipur.
- Dredging of the existing river channels, flood channels, wetlands and strengthening of breached and weak embankments. Encroachments in the river channels by community for commercial agricultural must be stopped and the river channels must be freed from such obstructions. Proper maintenance of these riverbanks is very much necessary and retaining walls needs to be constructed to reduce the flooding conditions.
- The management of the water bodies/lakes and wetlands in the Barak river Basin should be brought under one regulatory authority for their integrated management.
- The government, with the help of academia/research institutes, must consider undertaking a scoping study to assess the probability of flooding in immediate future, based on the understanding to be developed from the interactions of ground water, surface water and the landslide prone areas in the Barak river basin.
- SDMA and district authorities must urgently operationalize, the Flood Early Warning System (FEWS) for Barak River Basin.
- The State Government must initiate on priority (with the help of leading academic institutions), to undertake transparent flood zonation and flood vulnerability assessments of people and places at village level, so that the flood risk reduction is integrated with developmental planning at village level in all District Development Plans.
- Knowledge driven all-inclusive multidisciplinary flood planning needs to be initiated on priority by engaging technocrats with relevant expertise, to develop insights into flooding mechanisms in the Barak river basin, building on comprehensive existing studies.
- NGOs and CBOs and local communities must be encouraged to launch awareness generation campaigns on Disaster Management and risk-reduction measures converging both local and traditional knowledge with modern scientific knowledge. Effective support from SDMA and academia must be strengthened for these trainings. Such awareness should be generated and demonstrated with the help of local folk theatre, integrating the art with the theme of disaster risk reduction. Regular awareness campaign should be encouraged regarding safety measures against potential hazards using students body from schools and institutes of higher educations,

media, campaigns, development and distribution of leaflet, posters, meetings, workshop on priority basis.

- SDMA should formulate literature of do's and don'ts for building codes and disaster related rescue in local /vernacular languages with help from experts and educate public in basic response measures. There should be networking with community and the concerned authority to share knowledge and best practices on anticipated hazards with accuracy and effective approach.
- Municipalities and Panchayati Raj Institutions, Autonomous District Councils, Community Based Organizations and people (youth and school children) should be empowered and strengthened to undertake and monitor the time bound implementation, accountability and transparency of sanctioned projects.
- A convergence of welfare programmes and greater accountability of implementing departments would improve performance and participation of all stakeholders during disasters by generating a sense of belongingness and ownership amongst people.
- Training has been found to be the most effective tool of reducing vulnerabilities. Municipalities and Panchayati Raj Institutions, Autonomous District Councils, Community Based Organizations should ensure capacity building of the officers, employees and other staff, so that they are well trained for quick management of disasters and carry out relief, rehabilitation and reconstruction activities in the affected areas.
- The "belief" that upper reaches of Manipur cannot live without supplies from outside was clearly found during the floods 2015. Thus efforts should be made to provide supplies by helicopter services in the cut off areas during such disasters.
- The state of Manipur requires an urgent need for developing disaster resilient afforestation and reforestation measures.
- Synergy should be created with the Central and State government poverty alleviation, infrastructure development and livelihood generation programmes to enhance adaptive and coping capacity of people through skill development and capacity building for local resources management.
- Emergency Operation Site (EOS) should be identified based after identifying disaster vulnerability sites for future eventuality, and these sites should be fully prepared with all multipurpose emergency services like appropriate shelters, medical support, drinking water and appropriate bedding and food.
- Immediate relief and rehabilitation should be distributed to the identified victims after survey, so that victims do not fall in the vicious circle of borrowing loan at at interest rates and eventually fall within the vicious circle of poverty.

References:

- Benson, C. and Twigg, J. (2007) Tools for mainstreaming disaster risk reduction: guidance notes for development organisations. Geneva: ProVention
(www.preventionweb.net/files/1066_toolsformainstreamingDRR.pdf);
- Bahadur, A. (2008) Accountability for DRR. IDS Research Report for Christian Aid. Brighton: Institute for Development Studies.
- Centre for Dialogue and Reconciliation, Retrospective and Prospective of 2014 Floods for Building Flood Resilient Kashmir, April 2015, http://www.cdrindia.org/retrospective_and_Prospective_of_2014_Floods_15.pdf , Assessed on 25th May 2016
- Benson, C. and Twigg, J. (2007) Tools for mainstreaming disaster risk reduction: guidance notes for development organisations. Geneva: ProVention
(www.preventionweb.net/files/1066_toolsformainstreamingDRR.pdf);
- Bahadur, A. (2008) Accountability for DRR. IDS Research Report for Christian Aid. Brighton: Institute for Development Studies.
- Centre for Dialogue and Reconciliation, Retrospective and Prospective of 2014 Floods for Building Flood Resilient Kashmir, April 2015, http://www.cdrindia.org/retrospective_and_Prospective_of_2014_Floods_15.pdf , Assessed on 25th May 2016
- Government of Manipur, Flood and Irrigation Department,, report 2015.
- Harris, K. and Bahadur, A. (2010) Harnessing synergies: mainstreaming climate change adaptation in disaster risk: reduction programmes and policies. Brighton: Institute of Development Studies
(www.actionaid.org/sites/files/actionaid/full_report_-_harnessing_synergies__mainstreaming_cliamte_change_adaptation_in_drr_programmes__policies.pdf);
- Tanner, T. (2008) 'Climate risk screening of development portfolios and programmes', IDS Bulletin 39(4): 87–95.
- IPCC (2012) 'Summary for policymakers. Managing the risks of extreme events and disasters to advance climate change adaptation', in C.B. Field, V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor and P.M. Midgley (eds) Special report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge, UK, and New York: Cambridge University Press
(www.ipcc-wg2.gov/SREX/images/uploads/SREX-SPMbrochure_FINAL.pdf)
- Jackson, D. (2011) Effective financial mechanisms at the national and local level for disaster risk reduction. Geneva: United Nations Office for Disaster Risk Reduction
(www.unisdr.org/files/18197_202jackson.financialmechanismstosup.pdf).

Kamaljit Ray*, S. C. Bhan and B. K. Bandopadhyay, “The catastrophe over Jammu and Kashmir in September 2014: a Meteorological observational analysis, CURRENT SCIENCE, VOL. 109, NO. 580 3, 10 AUGUST 2015

Kent, G. (2001) ‘The human right to disaster mitigation and relief’, Environmental Hazards 3(3): 137–138; Khan, D. (2013) ‘Opinion: integrating climate-smart DRM in key sectors – what does it take?’. London: Climate and Development Knowledge Network (<http://cdkn.org/2013/06/opinion-integrating-climate-smart-drm-in-key-sectors-what-does-it-take>);

Manipur State Disaster Management Plan, Vol I and Reported by Earth Sciences Department, Manipur University, Canchipur, Imphal

Mitchell, T., Jones, L., Lovell, E. and Comba, E. (2013) Disaster risk management in post-2015 development goals: potential targets and indicators. London: Overseas Development Institute (www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8354.pdf)