Perceived Quality and Relationship Quality as Antecedents and Predictors of Loyalty in the Chemical Industry: A Literature Review

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Abstract

Several kinds of research in the past examined relationship quality as antecedents in B2B industries. The literature review extends a prior study by linking perceived quality with relationship quality as antecedents and predictors of customer loyalty. This study is a review of customer loyalty antecedents with the chemical industry as a content object. Perceived quality has two dimensions of tangible product and service. Referring to past research, there is no single universal relationship quality framework. This literature study refers to the relationship quality framework with a content of trust, satisfaction, and commitment. The authors investigate the relationship between perceived quality with trust and satisfaction, trust with commitment, commitment with loyalty, and satisfaction with loyalty. Every construct describes the definition and connection among constructs. Some chemicals industries are put as object examples to explain constructs in industry practice. This literature review finds a developed framework with relevant constructs that influence loyalty in the B2B context. By understanding the framework and connection among constructs, firms can develop a relationship program purposely to achieve customer loyalty.

Keywords: Perceived Quality, Relationship Quality, Trust, Satisfaction, Commitment, and Loyalty

Introduction

The chemical industry has an extensive product range from commodity characteristic product to specialty. Quality-wise, this product range has a point of differentiation scale from limited to relatively significant. BASF, a leading Germany-based worldwide chemical company, has been leading with profitable products, tends to focus on quality, and deals with environmental issues and social benefits (Schmidt et al., 2004). From the literature of Hjorth-Anderson (1984) and Monroe and Krishnan (1985), quality is described based on technical superiority. A chemical product with a limited differentiation point is considered as a commodity. To avoid product commoditization, companies need to be more transparent and open with customers when presenting their products and services. In the cooperation between two parties that work together for an extended period, it is creating a bind between supplier and customer called a learning relationship (Pine II et al., 1995). Some commodity producers place better prices for their products due to a close relationship with buyers (Kotler, 1993). A business environment changes rapidly; with tight competition and technology development, some products become commodities since competitors can copy them quickly. Commodities have a standard quality; buyers have more flexibility to purchase from any producers, with the price as a top priority. Companies have to create points of differentiation as added value, either from the product itself or the service. Levitt (1980) many ways to add value as a point of differentiation to avoid commoditization, for instance, technical backup, long-term payment, and flexible delivery. A producer should provide more points of differentiation from both product and services. Kim and Mauborgne (2015) describe that there are no boundaries for both products and services, but they become one total solution buyers seek. In other words, both tangible products and services merge into one single package to solve customers' problems.

Christopher et al. (2002) explain the perceived benefit of both products as tangible goods and services, so it indicates two dimensions of perceived quality. Gounaris (2005) describes in his empirical B2B study that competitors can imitate product quality easily, with the rapid development of technology in many industries, so strengthening a relationship with customers has become very important to remain in the business. Many industries in the B2B context put a lot of effort into developing and investing in relationships purposely to sustain business in a very tight competition. Once companies decide to build up a relationship with either buyer or prospect, then they need to determine organizational buying behavior in terms of the group members, which are constrained by policies, such as perceived role set, motivation, cognition, and learning as a fundamental psychological process (Webster Jr and Wind, 1996).

In its business leadership series, held in London, 2008, Dow Chemical-US based leading chemical manufacture and Harris research and consulting firm, depicts its original hypothesized model with many details of dimensions and constructs that influence customer loyalty. In the performance quality, it distinguishes product quality from other variables, customer service, technical support, product availability, delivery, and environment (2008). The model separates tangible products such as goods from others less tangible support as supporting services. Quality connects with satisfaction level. Trust is also one parameter measured at the stages of the relationship between supplier and customer, especially in the initial testing or qualifying stage that necessarily need to develop confident level. During this initial period, both parties need to evaluate each party's performance. The business article finds commitment at even number one of the top ten loyalty drivers. Relationship quality constituents of trust, commitment, and satisfaction are factors determinant of customer loyalty. Referring to the empirical study of Ulaga and Eggert (2006) and Walter et al. (2000), researching in depth of the B2B relationship between manufacture and manufacture, and also the study from Morgan and Hunt (1994) between manufacturer and distributor, the studies depict a model with trust as a driver of commitment.

This paper is organized purposely to trace back basic constructs that influence customer loyalty in terms of buyer-seller relationship in a B2B context. The paper is concerned with the supplier's perspective and all previous value research is used as a reference to investigate the relationship between the variables that form customer loyalty. In the literature review, some key variables would be analyzed and explored in terms of their influence on other variables, such as loyalty, perceived quality, and relationship quality with a content of trust, commitment, and satisfaction. In the last part of the study, conclusions and implications will be drawn.

Relationship Quality

Hewett et al. (2002) find that buyer's perception of relationship quality influences repurchase intentions positively. In a study on United States manufacturing companies with a nationwide mail survey among 400 purchasing professionals, Ulaga and Eggert (2006) clearly describe the essential constituents of relationship quality as commitment, satisfaction, and trust. In an empirical study of relationship marketing among manufacturers with a broad range of respondents from different industries, such as chemical, vehicle, mechanical, electronic, and metal processing, Walter et al. (2000) use the relationship quality framework with the content of commitment, satisfaction, and trust. Walter and Ritter (2003) find trust and commitment as critical drivers of value creation. The value itself distinguishes between direct and indirect functions. The direct function of a relationship has content of higher profit from products and services, growth of trade volume, and possibility to sell (Walter and Ritter, 2003). This right function content is the final purpose of relationship marketing and is an indicator of customer loyalty. Henning-Thurau (2000) believes trust and commitment are necessary variables to build a successful relationship; relationship success is measured by customer satisfaction and retention rate. Helfert and Gemunden (1998), in their empirical study with a topic of a powerful predictor of relationship effectiveness, propose that the better relationship atmosphere in terms of customer trust and commitment, the better the relationship effectiveness for the supplier company will be. Relationship effectiveness involves sales, product or service development, and market access; in other words, relationship effectiveness has similar indicators of loyalty. From these concepts of relationship quality, crucial loyalty drivers are trust, commitment, and satisfaction. The concept of relationship quality is also applicable to a non-profit organization (Bennet and Barkensjo, 2005). Segarra-Moliner et al. (2013) find satisfaction, trust, and commitment as critical components of relationship marketing. Rauyruen and Miller (2007) believe trust, affective commitment, satisfaction, and perceived quality influence loyalty.

Perceived Quality

Gronroos (1997) in his paper describes a product as a result of a process of various resources, such as people, technology, raw material, knowledge, and information with some features. This definition tends to be more transactional and too simplistic. In relational context, there should be awareness of what proper resources, to what extent, and in what configuration they should be used—for instance, in machinery sales, it needs staff training, regular maintenance, and the way to handle claims may vary, so the company has to adjust its resources accordingly. Purposely to keep relationship value, both buyer and seller tend to accept temporary disadvantage (Geiger *et al*., 2012).

In the business environment, a turbulent and intensely competitive market, developing a relationship with customers is the main concern. Anttila (2013) found that a relationship becomes valuable while both parties keep engaging in interaction. In an effort to maintain a relationship's value purposely, both buyers and sellers tend to accept temporary disadvantages (Geiger *et al*., 2012). There should be a congruence of the value expectation from both parties (Konhäuser, 2007).

Customers have more expectations, which makes it more difficult for a company to develop a satisfactory relationship. Hence, companies have to keep customers by developing trust and a relationship by developing products and services (Wilson, 1995). Jackson (1985) describes in her B2B

Harvard business article that it needs product quality with a point of differentiation to get customer loyalty. It describes loyalty with an example of a shipping company whereby customers readily shares their business with multiple suppliers since there is no point of differentiation. This company is compared with computer system companies that generally commit actively with their vendors since vendors provide the critical part of the system as a point of differentiation. Garvin (1987) described quality according to eight critical dimensions: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. The quality also depends on the industry, and a company does not have to pursue all eight dimensions. In the chemical industry, there are four dimensions that are relevant: performance, conformance, durability, and serviceability. Stone-Romero, Stone, & Grewal (1997) discussed perceived product quality as having four aspects: flawlessness, durability, appearance, and distinctiveness. In the chemical industry, flawlessness and durability are relevant. In his empirical study, Gounaris (2005) found that perceived quality influence trust positively. Yanamandram (2006) even finds that customers keep purchasing products, although, with less service performance, tangible products influence customer satisfaction positively.

This paper aims to explore construct dependency in relationship marketing, starting with two dimensions of perceived quality, tangible goods, and services. Gounaris (2005) finds that service quality influences trust positively. The research finds a positive relationship between the degree of supplier's perceived quality and the degree of customer trust. It means that perceived quality is an antecedent of trust. Doney et al. (2007) find a positive relationship between overall service quality and buyer's trust in B2B service relationships (aviation components and service industry). If companies' service meets or exceeds the buyer's expectation, then the buyer will be more confident, which in turn develops trust in the companies. Furthermore, trust influences loyalty positively (Doney et al., 2007). In the B2B service industry, Turnbull and Moustakatos (1996) find trust as an essential element of perceived quality. Chenet et al. (2010), in their empirical B2B study, find that service quality influences trust positively.

Gounaris (2005) describes the fact that services arise as important aspects even in such tangible goods industries as computers and cars. This view is initiated earlier by Gronroos (1994) as a customer interaction outside the product itself that becomes more important, even often becoming dominating ones. Customers perceive quality as having two dimensions: first is a technical solution as a solution to customer problems and second is functional quality as added value, for instance, information knowledge and social aspects. Gronroos (2004) supports the concept about the importance of service as a point of differentiation. The continual product development does not always lead to a sustainable competitive advantage, the service becomes very important as tailor-made design, delivery, installing equipment, training, spare-part service and maintenance. Kotler (1993) defines offering into four groups as follows: First is tangible goods, second is tangible goods and service, third is service and tangible goods as a compliment, and fourth is service. Refer to the Kotler offering group; the chemical industry fits the second group whereby the process of supervision service makes chemical product application from the seller's technical people. According to Lovelock (1983), chemical industry business in B2B context fits tangible actions that go to the thing or goods, in other words the combination of product and services. A lot of empirical studies apply the RATER service concept that is introduced by Parasuraman et al. (1985). This concept introduces the RATER service that stands for reliability, assurance, tangible, empathy, and responsiveness, which is very popular and widely used as a model tool to analyze and breakdown service process in detail. Bennet and Barkensjo (2005) developed the B2B charity relationship model with RATER as service dimension. In the B2B chemical relationship context, a tangible element is not relevant. Hence, the chemical industry services the content of four factors: reliability, assurance, empathy, and responsiveness. Product quality and services reflect perceived quality as seen in the diagram below.

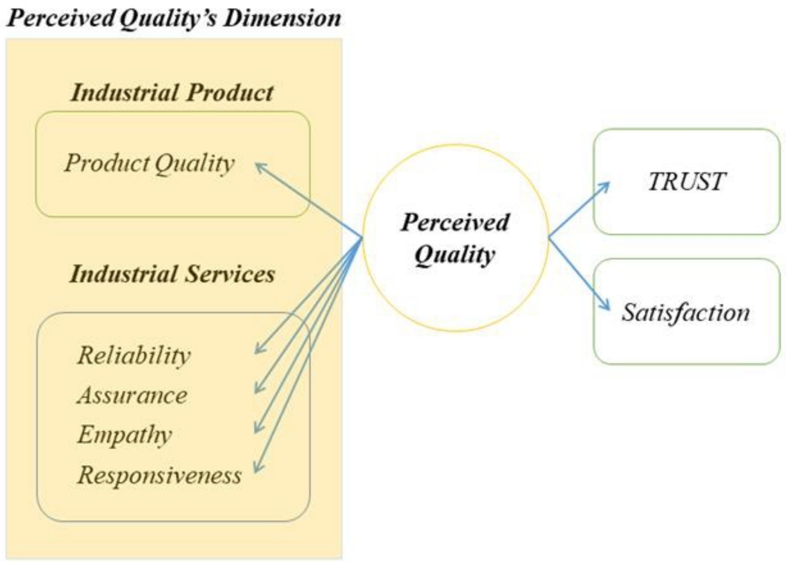

Figure 1. Perceived Quality influences trust and satisfaction

Wilson (1995) found product and service quality as a driver to develop trust. In its business article, KPMG-Nunwood (2017) has explained that trust is built slowly over time, and it needs to go through a process. When customers are satisfied and have trust, they are most likely to stay in a long relationship

(Himanka, 2017). This supports the past concept that trust and satisfaction partially influence loyalty (Andersson & Karlström, 2014). In the B2B context, trust towards a manufacturer increases cross-buying behavior and share of wallet (Paulssen & Roulet, 2017). In the empirical B2B business study, Caceres and Paparoidamis (2007) develop a model using technical quality and functional quality as two independent constructs to positively influence customer satisfaction. Both variables are about what is offered (technical quality) and how to offer it (functional quality). Technical quality dimensions refer to what customers receive. Functional quality corresponds to the expression of service performance delivered to the customer, but is, regretfully, subjective. In their B2B empirical study, Hong and Goo (2004) find perceived quality positively influences satisfaction. Perceived service quality is based on real service performance and compares with what the customer perceives. Any negative discrepancy will result in dissatisfaction, and perceived quality influences satisfaction. Any negative discrepancy will result in dissatisfaction, and perceived quality influences satisfaction. In the chemical industry, a company needs to develop the skills and abilities of its people to better serve customers since business sustainability comes from product and service (Joseph & Unnikrishnan, 2016). In the empirical study of the chemical industry, Blut, Frennea, Mittal, & Mothersbaugh (2015) endorsed satisfaction since it influences customer repurchase behavior. Quareshi (2017) did empirical research with 307 respondents in the automobile industry and found that a perceived price influenced perceived quality positively. Perceived quality influences perceived value positively. In the chemical industry, if a company offers products for the same application with price variety, a lower price would indicate lower quality. With better application quality, the chemical product will contribute to a better value. Furthermore, a lower priced chemical product will mean a lower value contribution. Hence, the perceived price influences perceived value negatively.

Many researchers contribute a perspective that the company needs to perform both dimensions of tangible products and services. Pine II et al. (2015) explain the need for a flexible manufacturing process to enable companies to produce a customized large volume of goods or services at a relatively low cost. This argument addresses perceived quality related with reduced costs. The point of differentiation is a low cost either for the product and/or service. A lot of B2B relationship studies focus on low cost as one point of differentiation in their perceived quality perspectives. Anderson et al. (2006) provides some clear examples about value propositions in the chemical industry, as chemical manufacturer Akzo Nobel conducts a two-week pilot project and proves to produce better or as good as the rival's product performance but with lower cost. One resin manufacturer produces resin used for exterior paints and finds labor cost as a substantial cost component in customers' cost structure. The resin manufacturer discovers a new formulation that makes its resin dry much faster so it can reduce customer's labor cost during work. Sonoco, a global South Carolina, U.S.-based packaging manufacturer approaches and proposes European prospects to redesign their product lines. The new line can save cost in terms of working days, from a seven-day, three-shift production schedule to a five-day, two shift operation; in other words, its new product line provides more output with the same seven full days or exhibits more productive packaging product-line performance. In the resin chemical industry with a relatively high point of differentiation, as resin application for paint facilitates better performance paint, it will drive paint customers to identify a performance trade-off. The paint industry is willing to pay for paints with better performance. It will provide more benefits with a higher selling price to customers in the end. Rockwell automation places a guaranteed offer of pump solution with cost savings, in terms of power usage reduction.

Saling et al. (2002), in the empirical study about eco-efficiency analysis by BASF, one of the largest Germany-based chemical worldwide companies, proceeds to specify customer benefits from both financial and environmentally friendly points of view. These eco-efficiency solutions provide chemical products with a point of differentiation, in terms of environmental issues (such as air emissions, water emissions, and solid waste) with a relatively low cost. The socio-eco-efficiency analysis integrates assessments of environmental impact and economic analysis (Takamura, Lok, & Wittlinger, 2001). BASF pioneered in conducting the socio-eco-efficiency research and initiated socio-eco-efficient solutions. This chemical product performance combines a friendly environmental aspect, high social benefits, and a low economic cost (Schmidt et al., 2004). This environmental issue relates tightly to community health. Hence, the chemical product should comply with the global competitiveness index, in particular at pillar 4: health and primary education (Jilcha, 2014). Measuring relative perceived quality with quality differentiation and cost leadership approach would come out with competitiveness; in other words, growth and profitability increase (Gale and Buzzell, 1989). This method would lead companies to have a double benefit, which is superior quality at lower cost, also a key benefit of stronger customer loyalty. In the B2B context, product quality relates tightly to the total cost for the same or better output quality.

Satisfaction, Trust, and Commitment

Ulaga and Eggert (2004) find satisfaction as a driver of loyalty through trust and commitment as mediators. With a research population from different sectors such as electronic, textile, wood, furniture, and automotive, Gil-Saura et al. (2009) find satisfaction influences loyalty positively. In the empirical study of B2B service, Lam et al. (2004) find satisfaction influences loyalty positively. In the empirical study of small industrial firms, Pelham (1997) finds market orientation influences loyalty significantly. The study focuses on commodity and specialty products, which include the chemical industry. Fornell (1992) finds customer satisfaction has a positive relationship with loyalty in general. In the B2B study of the USA market, Molinari et al. (2008) find a positive relationship between satisfaction and repurchase (a loyalty indicator). The research uses service companies as respondents, such as international air transport companies, international shipping companies, packaging companies, and trucking companies. Other researchers, such as Patterson et al. (1997), Anderson and Sullivan (1993), and Anderson et al. (1994), have examined satisfaction in correlation with repurchase behavior. All these researchers find satisfaction influences loyalty positively. Oliver (1999) describes the loyalty phase in detail and puts satisfaction in the second phase of three necessary steps. After the trial and usage of a product or service, at this phase, the customer will have satisfaction. This phase is called affective loyalty; further commitment at a conative level is still needed to achieve loyalty.

Moorman et al. (1992) define trust as a willingness to rely on an exchange partner in whom one has confidence. This definition explains trust from two different points of view: the first is from an affective approach which is one party confidence to the other party; another words, it is about belief; the second is from a behavioral intention view which is one party relying on the other party. This definition spans from a traditional view of trust that is a psychological approach (confidence feeling), but it also includes a sociological side (willingness to rely on a partner). In the other empirical study, Moorman et al. (1993) place a related argument with the above definition that someone whose belief is to partner, but is unwilling to rely on has limited trust. Someone who relies on a partner without a concomitant belief may indicate power rather than trust. Moorman et al. (1992) explain trust with two dimensions; cognitive trust means a rational view and a willingness to rely on vendors based on competency and reliability, and affective trust which is a more emotional point of view as a perception to the partner that motivates the other to stay and keep the relationship. Since the B2B context is more rational during vendor evaluation, Briggs and Grissafe (2010) explain that the cognitive dimension of trust is more relevant than other dimensions. Wilson and Jantrania (1993) view trust more from social aspects and describe trust as perceptions of one party on another party's ability, expertise, knowledge, the other party's motive and intentions.

Trust is a fundamental building block; most definitions of trust involve a belief that one partner will act in the interests of the other partner (Wilson, 1995). In B2B global service, empirical study with respondents consists of the buyer of aviation component repair services among 42 countries. Doney et al. (2007) found a positive relationship between trust and commitment. Ulaga and Eggert (2006) describe trust as a key-mediating variable and a center to other variables as commitment and satisfaction. The research finds that trust influences commitment positively, and satisfaction influences trust positively. Morgan and Hunt (1994) define trust as existing when one party has confidence in an exchange partner's reliability and integrity. Moorman et al. (1993) define trust as the willingness to rely on an exchange partner in whom one has confidence. In the empirical business market study, Walter and Ritter (2003) find that trust influences commitment positively. The hypothesis finds a robust positive relationship in which increasing a customer's trust will increase the customer's commitment. Holloway et al. (2009) find a positive correlation between trust and commitment. In the study of the French industrial sector, Akrout and Akrout (2007) found trust as a crucial role in maintaining a relationship and consequently, profits. Mouzas et al. (2007) and Seppänen et al. (2007) find trust as an essential factor in maintaining and building relationship quality.

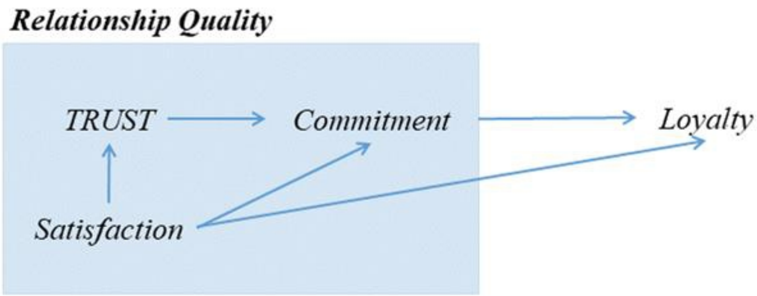

Figure 2. Trust, satisfaction, and commitment are antecedents of loyalty

From past empirical studies of relationship marketing, the objective of the study is to get customers' commitment and loyalty in the end. In the empirical study of manufacturer and distributor relationship, Anderson and Weitz (1992) find many benefits for both parties because of commitment. The manufacturer gets market information access, distributor assists in launching products, and even reduces distributor interest to promote a rival's product. Furthermore, a distributor gets the privilege of desired products and exclusive market coverage. Commitment plays a role as a driver to loyalty (Sheth and Parvartiyar, 2002). Mummalaneni (1987) explains commitment as the critical variable to decide to stay or leave from the relationship; in other words, commitment as a driver of loyalty. With the population from the different sectors such as chemical, machinery, and electric, Ulaga and Eggert (2006) find the same proposition of commitment to be a stayer or a leaver in the midst of the relationship. In the study, trust will have no direct influence on outcome behavior, but commitment. Trust influences the behavioral outcome in the end through commitment, whether both parties even decide to expand the business or terminate. With populations from different sectors such as food, textile, electronic, paper, wood, and automotive, Gil-Saura et al. (2009) support the concept, which is a commitment as an antecedent of loyalty. The research finds commitment influences loyalty positively. Some researchers have studied empirically about commitment; they find that commitment influences loyalty positively, as Sheth and Parvartiyar (2002), Mummalaneni (1987), Berry and Parasuraman (1991), Ulaga and Eggert (2006), Caceres and Paparoidamis (2007), and Chenet et al. (2010). Commitment is the closest antecedent of loyalty.

Different motivation encourages two types of commitments (Mathieu and Zajac, 1990). These both types of commitment have a consistent belief in the relationship but with a different approach.

d. Affective commitment: Buchanan (1974) describes an affective commitment as one in which the company desires to continue the relationship because he or she enjoys the relationship. Other researchers depict it with a positive experience and a sense of loyalty and belonging (Jaros et al., 1993).
e. Calculative commitment: This commitment drives to the relationship that refers on a cost-benefit basis, and structural constraints that bind both parties relationships. In essence, this calculative commitment has a negative motivation; on the other hand affective commitment has a positive motivation (Geyskens et al., 1996).

Gounaris (2005) finds the more significant the customer's affective commitment in the relationship, and it will influence the customer to remain the relationship. The opposite result comes up with calculative commitment under the same hypotheses that the more the customer's calculative commitment in the relationship, the less the customer tends to remain in the relationship. These hypotheses prove the positive and negative motivation concepts of commitment. Referring to the relationship model proposed by Gounaris (2005), trust and commitment are two important variables to keep and uphold in order to retain a relationship. Commitment influences behavioral intentions positively in terms of investment and relationship sustainability. Both of these intentions are indicators of loyalty. Gundlach et al. (1995) find that commitment is to be related to loyalty, and it is the primary variable of the relationship model.

Loyalty

Commitment is an essential ingredient of successful relationships, which leads to loyalty (Berry and Parasuraman, 1991). Sheth et al. (2000) describe that there will be increasingly customer-centric marketing in this century, whereas the company was spending more time with the customer with the end objective of gaining loyalty. In the definition of loyalty, Oliver (1999) put the importance of commitment on repurchasing a preferred product or service consistently. Repeat order is a critical indicator of loyalty. Caceres and Paparoidamis (2007) find commitment has a strong influence on loyalty and confirms commitment as an antecedent of loyalty, together with trust and satisfaction. In the empirical B2B study, Chenet et al. (2010) find that commitment positively influences loyalty. Cooper (1993) describes word of mouth as an indicator of loyalty. East and Hammond (1996) explain in their paper that a firm's products remain the best alternative to sustain the business and to win loyalty. Oliver's (1999) framework describes loyalty steps as follows: a cognitive sense, as the initial phase, followed by an affective sense, a conative manner, and finally, a behavioral manner. The attitude development structure is as described below.

- Cognitive loyalty: In the very early phase, customers purchase a product or service based on brand belief only. This cognition refers to prior or vicarious knowledge or experience-based information circulating within the market and industry. At this phase, brand influences loyalty because of information.
- Affective loyalty: In the second phase, cumulative usage of the same product or service develops customer satisfaction toward the brand. This satisfaction reflects a pleasure dimension of the customer toward the brand.
- Conative loyalty: This is behavioral intention influenced by actual usage, experience, and satisfaction toward the brand. By definition, conative loyalty refers to a brand-specific commitment on the part of the customer to repurchase. At this phase, a customer forms a commitment to keep using the same product or service.

After proceeding through the first three phases, cognitive, affective, and conative, the customer reaches a final phase of action called action loyalty. This attitude development structure sees commitment as the antecedent of action loyalty. Dick and Basu (1994), in their empirical study of customer loyalty, describe four types of loyalty: the first is brand loyalty for frequently purchased packaged goods, the second is store loyalty for retail establishments, the third is service loyalty for service businesses, and the fourth is vendor loyalty for industrial goods. Prior positive experience, perceived credibility, and consistency are likely to influence a customer's confidence toward vendors and enhance loyalty in the end. Referring to Oliver's framework of loyalty steps, the cognitive and conative aspects are relevant to the industrial relationship. The affective aspect is even a key determinant of repurchase intention. After investigating customer-vendor relationships in industrial products, Jackson (1987) finds loyalty often involves a commitment from both parties. In other words, commitment is also an antecedent of loyalty in industrial relations.

Summary and Conclusion

Developing loyalty in the B2B context needs an understanding of supported constructs. Since it is a B2B relationship that focuses on chemical industries, a cognitive point of view becomes a necessary aspect. Chemical industries have been trying to avoid commoditization and put more focus on differentiation. From the tangible product itself, a point of differentiation relates to either product features, performance, or cost from the customers' point of view. This paper breaks down perceived quality into two dimensions: tangible product and service, as a point of differentiation comes either from the tangible product itself or the service, or even both. In the business market, the buyer tends to be more logical and rational thinking during the decision process, although positive previous experience with products or services also influences emotions and affective factor. This study develops a framework and connection among critical constructs, starting with perceived quality in terms of product and service dimensions. Both of these influence relationship quality, the content of trust, satisfaction, and commitment, and finally, all these constructs are antecedents of loyalty.

Satisfaction is influenced positively by two independent constructs: technical quality and functional quality. The technical quality for physical product performance refers to product features and technical specifications in the chemical industry. Meanwhile, functional quality corresponds to the service performance of the product as a technical application, technical consulting, flexible delivery, and lead time. Trust is the confidence level of one party to the other's ability, knowledge, and expertise. This opinion tends to be a more cognitive aspect. From the affective point of view, trust considers other party's motives and intentions. In the loyalty steps, commitment is at the conative step by the final phase or action of loyalty. Vendor loyalty is the end target of relationship marketing development, and cognitive and affective aspects influence this construct. Hence satisfaction influences loyalty through trust and commitment, or through commitment, or even directly influences loyalty. The better performance of perceived quality, the higher satisfaction level of customers, then the better possibility of satisfaction to earn loyalty directly.

In business practice, such as the chemical industry, the industry develops a marketing relationship program that focuses on key drivers, and all antecedents contribute to customer loyalty. Purposely, to avoid commoditization, the chemicals should be able to create value in both tangible products and/or services with a point of differentiation. The cognitive, affective, and conative aspects will evaluate customer responses. All constructs that influence loyalty should be monitored and evaluated; hence, the company can trace weaknesses within the relationship process and purposely sustain its business in a very tight competition. From a more strategic point of view, management could put a relationship marketing program in line with the company's annual target, strategy, or even vision in the long-term.

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