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THE MEDIATING ROLE OF BRAND IMAGE AND CUSTOMER SATISFACTION IN THE IMPACT OF MARKETING INNOVATION ON CUSTOMER LOYALTY (A CASE RESEARCH IN THE CHEMICAL INDUSTRY)

Tarkan TUNÇ 1

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ABSTRACT

Keywords

Marketing innovation Loyalty Image Satisfaction Mediation Marketing innovation is extremely important for companies to create an advantage, especially in highly competitive industries. The intense competition requires the ability to make accurate and timely innovations to keep up with the rapid change. Innovation has a positive effect on profitability and performance, but it is very difficult to ensure its continuity. Loyalty, on the other hand, is the result of intense efforts that require long periods, unlike innovation. Loyalty is very important for companies to survive and face competition in the market. While innovation plays an important role in influencing consumer trends, loyalty is one indicator of how strong these trends are. Managing customer preferences and creating loyalty is the biggest challenge for companies. This research examines the interaction between innovative marketing activities, which represent change, and customer loyalty, which takes difficult processes to create, through the concepts of image and satisfaction. The results show that the direct effect of marketing innovation on loyalty is not significant, but the indirect effects through image and satisfaction are significant. The research confirms the mediating role of image and satisfaction in the innovation-loyalty relationship.

PAZARLAMA YENİLİĞİNİN MÜŞTERİ SADAKATİNE ETKİSİNDE MARKA İMAJI VE MÜŞTERİ MEMNUNİYETİNİN ARACILIK ROLÜ (KİMYA ENDÜSTRİSİNDE BİR VAKA ARAŞTIRMASI)

ÖZ

Anahtar Kelimeler

Pazarlama yeniliği Sadakat İmaj Memnuniyet Aracılık

Pazarlama yeniliği, özellikle rekabetçi sektörlerde, firmaların avantaj yaratması ve bu avantajı sürdürmesi için oldukça önemlidir. Çünkü ağır rekabet koşulları hızlı değişime ayak uydurmak üzere doğru ve zamanında yenilikler yapabilmeyi gerektirir. Yeniliğin, karlılık ve performans üzerinde pozitif etkisi vardır fakat sürekliliğini sağlayabilmek oldukça zordur. Sadakat ise yeniliğin aksine genellikle uzun süreler gerektiren yoğun çabaların neticesinde ortaya cıkar. Sadakat, firmanın ağır rekabet kosulları altında daha uzun bir yasam sürdürebilmesi için son derecede önemlidir. Yenilik, tüketici yönelimlerini etkilemede önemli bir rol oynarken sadakat, bu yönelimlerin sürekliliğini sağlamakla ilgilidir. Sık değişen müşteri tercihlerini doğru yönetmek ve bunu sadakat yaratarak başarmak firmalar için en büyük zorluktur. Bu araştırmada, kimya sektöründe faaliyet gösteren büyük ölçekli bir firmada, doğası gereği hızlı olan ve değişimi temsil eden yenilikçi pazarlama faaliyetleri ile yaratılması uzun süreler alan ve zorlu süreçler gerektiren müşteri sadakati arasındaki etkileşim, marka imajı ve müşteri memnuniyeti kavramları aracılığında incelenmektedir. Sonuçlar, pazarlama yeniliğinin müşteri sadakati üzerindeki doğrudan etkisinin anlamlı olmadığını, fakat imaj ve memnuniyet aracıları üzerinden gerçekleşen etkilerin anlamlı olduğunu göstermektedir. Araştırma, pazarlama-sadakat ilişkisinde imaj ve memnuniyetin aracılık rolünü doğrulamaktadır.

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¹Dr. NPBTK, drtunc474@gmail.com

INTRODUCTION

The customer is the most important asset of a company (Anderson & Fornell, 2000) and the most valuable customers for organizations are loyal customers (Yeboah-Asiamah et al., 2016). Marketing innovations focus on meeting changing customer demands in the most accurate and fastest way (Vazquez et al., 2001). So, is it possible to meet customer demands effectively and create loyalty with marketing innovations? The number and content of studies examining the relationships between marketing innovation and customer loyalty are quite limited (e.g. Azzam et al., 2021; Chuah et al., 2016). The research was conducted to understand both the marketing innovation-loyalty relationship and the impact of image and satisfaction on this relationship.

Innovation generally consists of fast processes, while loyalty consists of slow processes. Innovations lose their value in delivering superior profits when replaced by something better or spread among competitors (Hunt, 2010). For this reason, the relationship between the concept of loyalty, which becomes stronger over time, and innovations that decrease in value over time is a matter of considerable importance.

Marketing innovation is one of the key components of the company's ability to maintain its competitive advantage (Ngamsutti, 2016). Companies face great challenges in creating an image, satisfaction, and loyalty (Neupane, 2015). Encouraging innovations and new marketing activities lead to greater differentiation. Companies with differentiation capability have an alternative way to capitalize on market opportunities (Sanchez-Gutierrez et al., 2018). Studies show that 60-80% of customers who find fault with a competitor are satisfied or very satisfied just before they find fault (Reichheld et al., 2000). This result shows that in addition to customer-oriented concepts such as satisfaction, brand-oriented concepts such as image should also be considered as a factor affecting loyalty. In this context, the contribution of brand image and customer satisfaction to the relationship between marketing innovation and customer loyalty becomes important.

The study consists of four parts. "Literature review" is the section where previous studies are reviewed. In "research hypotheses", the hypotheses of the research are explained. "Research methodology" describes the methodology of the study. "Conclusion" evaluates the results achieved and makes comparisons with the results of previous studies.

1. LITERATURE REVIEW

Chao (2015) examined the effect of image and satisfaction on the loyalty of marketing and concluded that consumer perceptions of brand image and satisfaction should be used to create loyalty (in the service industry). Ciavolino and Dahlgaard (2007) stated that satisfaction has a significant impact on loyalty (e.g. in the food industry), while in some highly competitive industries (e.g. in the phone industry) loyalty is more image-driven. Upamannyu and Sankpal (2014) found that there is a strong positive relationship between image and loyalty, while the relationship between satisfaction and loyalty is weaker (in the chemical industry). The study is very important in that it has concluded that in the absence of image, satisfaction cannot create loyalty.

1.1. Marketing Innovation (MI)

Innovation involves formulating efficient and value-providing strategies that will leave the customer in a satisfied state of mind (Gupta & Malhotra, 2013). The Oslo Manuel (2005) categorizes innovations into four groups; product innovations, process innovations, organizational innovations, and marketing innovations. According to the Manuel, marketing innovation involves the implementation of new marketing methods (such as changes in product design and packaging). Marketing innovation aims to increase sales, better meet customer needs, reach new markets, or position the product in a new way. The distinguishing feature of marketing innovation compared to other marketing tools is that it contains previously unused tools and techniques (Fuentes-Blasco et al., 2017). Marketing innovation is a part of marketing strategy, deals with the marketing mix, and generates significant improvements in marketing elements (YuSheng & Ibrahim, 2019).

Marketing innovation enables unpredicted opportunities to be captured by using competencies and competitiveness flexibly. Marketing innovation is related to market research, price-setting strategy, market segmentation, advertising promotions, retailing channels, and marketing information systems (Lin et al., 2010). Whether an innovation shakes up the industry or is a modest development, the life of successful innovations is cyclical. It is developed, used profitably, and loses its value (Hunt, 2010). In the marketing literature, marketing innovation has been positioned as a type of incremental innovation, not a radical innovation (Naidoo, 2010).

The Mediating Role of Brand Image and Customer Satisfaction in the Impact of Marketing Innovation on Customer Loyalty (A Case Research in the Chemical Industry) Innovations enable to perceive the price as fair and more likely to report positive behavioral intentions (Jin et al., 2015). Marketing innovation is one of the important strategies used to achieve sustainable competitive advantage (Quaye & Mensah, 2019).

1.2. Brand Image (BI)

"A brand is a name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers" (AMA Dictionary). Brand image, on the other hand, is the consumer's perceptions, thoughts, feelings, and evaluations about the brand (Roy & Banerjee, 2007). Brand image is the sum of the elements that add value to the brand and that consumers identify with the brand. Some of these elements are related to the product, and some of them are related to the needs, values, and lifestyles of the consumer (Erdoğan & Esen, 2015). As the positive perception of the brand in the consumer's mind increases, trust towards the brand increases (Afzal et al., 2010). Brand image is a key factor to establish a connection between the brand and the consumer (Chao, 2015). A positive image is an important factor for the company to maintain its position in the market (Keisidou et al., 2013).

Brand image plays a very important role in the preference of products and services in competitive market environments (Neupane, 2015). Brand image defines the extrinsic properties of products and services, including how the brand tries to meet the psychological or social needs of customers (Kotler & Keller, 2016).

Brand image is verified by the direct experience of the customer. It enables customers to distinguish the needs the brand meets, differentiates the company, and increases market share (Neupane, 2015). A solid image is essential for corporate success. According to Lahap et al. (2016), it can improve financial performance, revenue, and profitability.

Brand image is created in the mind of the customer through means such as impacts of promotion, advertising, public relations, physical image, word-of-mouth, and the customer's actual experiences with the goods and services (Kandampully & Suhartanto, 2003). Loyal customers are open to active cooperation and tend to ignore the company's competitors. This helps the company maintain its earnings in the long run (Lahap et al., 2016). Brand image increases loyalty, brand value, and brand performance, and changes purchasing habits. Measuring the brand image helps the brand identify its strengths and

weaknesses and understand the consumer's perception of products and services (Neupane, 2015).

1.3. Customer Satisfaction (CS)

Customer satisfaction is a mental state that compares the customer's pre-purchase expectations with their post-purchase performance perception. It shows whether the customer's needs and expectations are met (Zuniga-Collazos & Castillo-Palacio, 2016). The concept of satisfaction is the consumer fulfillment response. Satisfaction is a provision regarding whether products and services provide satisfaction (Vesel & Zabkar, 2009). It is also a measure of the customer's level of satisfaction and their perception of performance. High satisfaction refers to high performance (Keisidou et al., 2013).

Customer satisfaction is defined by "*what customers say*" (Sunder, 2011). Measurement of customer satisfaction is one of the key mechanisms for successful organizations. Results can help to hold existing customers and to attract new customers. It is stated that satisfied customers recommend products and services, and therefore marketing strategies should be aimed at increasing satisfaction (Neupane, 2015).

Customer satisfaction can be divided into attribute-specific and overall performance satisfaction or transactional and cumulative satisfaction (Yeboah-Asiamah et al., 2016). In the literature, it is assumed that satisfaction has a direct influence on repurchase behaviors (Mittal & Kamakura, 2001). If satisfaction is high, customers are also more likely to exhibit repurchase behavior (Yeboah-Asiamah et al., 2016).

Customer satisfaction is an indicator of revenue and profit (Forozia et al., 2013), and it happens when customer expectations are exceeded (Kotler & Keller, 2016). Focusing on improving satisfaction policies is essential, as the cost of acquiring new customers is higher than retaining old customers (Lahap et al., 2016; Reichheld & Kenny, 1990).

1.4. Customer Loyalty (CL)

Customer loyalty is defined by "*what they do*", not "*what they say*" (Neupane, 2015), repurchase intentions, and positive attitudes towards products and services (Channa et al., 2020). It includes four inclinations: 1) repurchase tendency, 2) tendency to recommend the company/brand to others, 3) tendency to be price tolerant and 4) cross buying tendency (Hu & Huang, 2011). Customer loyalty thus contributes to revenue growth by reducing marketing costs. Customer loyalty is associated with positive returns such as increased

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sales (market share), lower costs, and more predictable profitability (Yeh, 2015; Zeithaml et al., 1996). Gaining customer loyalty is an important goal of companies, and loyalty programs are intended to help in reaching it (Evanschitzky et al., 2012).

Customer loyalty keeps the company afloat in the face of competition. Three approaches exist in customer loyalty: 1) behavioral, 2) attitudinal, and 3) integrated (Bersali & Guermat, 2014). Behavioral loyalty is a deeply held commitment by the customer to purchase a product again in the future and this commitment prevents other companies from considering their marketing efforts (Oliver, 1999). Behavioral loyalty focuses on the customer's purchase history and is measured by repurchase behavior (Keisidou et al., 2013). Attitudinal loyalty refers to the degree of loyalty an average consumer has towards a brand. The attitude behind the behavior is important as it can guide future purchase behavior. More than 60% of brand loyalty is related to the behavioral dimension (Neupane, 2015). Integrated loyalty combines the first two and represents true loyalty (Chuah et al., 2016). According to Sheth and Park (1974), consumers can be loyal to the brand even if they have never purchased it. Loyalty is not only related to repetitive purchase tendency but also tendencies such as effect, fear, respect, and compliance.

Customer loyalty, which expresses the customer's trust in the company, is related to cost-benefit evaluations, but also to the expectation of meeting the demands at the best possible level (Boxer & Rekettye, 2011). Reichheld and Schefter (2000) states that one of the most important dimensions of brand loyalty is trust in the brand. Accordingly, the customer does not become a loyal customer of a brand without trusting that brand (Erdoğan & Esen, 2015).

Customer loyalty can be passive or active. Passive loyalty is the customer's decision to stay with the company even if he or she is not completely satisfied. Active loyalty is word-to-mouth advertising and the intention to use products and services (Keisidou, 2011). It is stated that true loyalty occurs when the customer remains a customer even when top-quality products and services are not offered. Loyal customers are characterized by repetitive purchasing, recommending the company to others, strongly supporting their choices, and defending the brand against bad comments (Keisidou et al., 2013).

According to Oliver (1999), the most important customer is a loyal customer. Because loyal customers buy more products, spread a good reputation for the company and products, do not pay attention to competitive brands, are not price-sensitive, share their ideas about products and services with the company, and cost less than new customers (Kotler & Keller, 2016). All of these desirable behaviors ultimately lead to stable cash flows and increased revenues for a company (Chuah et al., 2016).

2. RESEARCH HYPOTHESES

The literature sees image and satisfaction as important antecedents of loyalty and confirms their role in loyalty measurement (Abrudan et al., 2015). According to Neupane (2015), the effects of the image on loyalty are far superior to the effects of satisfaction. The researches show that innovations have a positive impact on customer loyalty through brand image (Shiau, 2014). However, the direct positive relationship between marketing innovation and loyalty cannot be reached with this clarity. In this context, it is stated that there are close relations between brand image, satisfaction, loyalty, and marketing innovation and that innovative actions contribute to attracting new customers and retaining existing customers (Abrudan et al., 2015).

2.1. Marketing Innovation and Customer Loyalty

Marketing innovations are considered an increasingly important tool for customer loyalty (Chuah et al., 2016). According to Azzam et al., (2021), marketing innovation has a strong and positive relationship with customers' loyalty, so if the marketing innovation increases, it reflects positively on customers' loyalty. Every successful innovation adds new energy to brand loyalty (Kumar & Kandoi, 2018). According to Fatkhurrohman (2011), while innovations do not have a direct significant effect on customer loyalty, they do have a significant effect on loyalty due to their influence on antecedents. Therefore, it is necessary to pay attention to innovation activities for enhancing customer loyalty to increase the value (revenue and market share) of the company.

According to Moliner-Velazquez et al. (2019), innovation has a significant effect on loyalty. However, there is both the need for scales to measure this innovation and the lack of empirical evidence for its relationship to loyalty and other similar constructs. Although theoretical studies suggest that marketing innovation has a positive relationship with customer loyalty, there is little empirical evidence for this relationship. Bersali and Guermat (2014), on the other hand, state that discriminating innovations are consequential, effective innovations are positively related to loyalty, ineffective innovations are neutrally related to behavioral loyalty and harmfully related to attitudinal loyalty.

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According to Channa et al. (2020), the literature reveals the overall importance of innovation in capturing customer loyalty. In this context, it is understood that innovations can increase customer loyalty (Gupta & Malhotra, 2013) and can be considered an antecedent (Foroudi et al., 2016). The study hypothesized that:

H_{1a}: Marketing innovation has a significant impact on customer loyalty
H_{1b}: Brand image is a mediator between marketing innovation and customer loyalty
H_{1c}: Customer satisfaction is a mediator between marketing innovation and customer loyalty

2.2. Marketing Innovation and Brand Image

The relationship between image and innovation is an understudied topic and the number of studies in the field is quite low (Arzubiaga et al., 2019). Innovation and brand enable an organization to survive, develop and create new values. Innovations complement and strengthen the brand image. On the other hand, if the company has a higher brand image, the consumer's adoption of the company's innovations will be easier (Arzubiaga et al., 2019; Shiau, 2014). Thus, innovative processes improve brand image, increase the value offered to the customer, and strengthen purchase intention (Yeh, 2015).

In general, innovations have a significant and positive effect on brand image thanks to the perception of high quality (Faullant et al., 2008; Saleem & Raja, 2014; Shiau, 2014). Because innovations enable the consumer to perceive the product functions as superior and create a sense of satisfaction. Thus, the brand has a solid image in the heart of the consumer (Shiau, 2014). In this context, it is possible to say that there is a significant and positive relationship between marketing innovation and image (Zuniga-Collazos & Castillo-Palacio, 2016). The study hence hypothesized that:

H₂ : Marketing innovation has a significant impact on brand image

2.3. Brand Image and Customer Loyalty

Image is an important component and affects loyalty (Faullant et al., 2008). For companies, having a positive brand image is a necessary asset for success. Customers use products with a reliable and recognized brand identity more confidently. Brand image is an important requirement for customer loyalty and there is a strong bond between them (Genoveva, 2015; Lee et al., 2019). It is accepted that a positive brand image contributes to increasing customer loyalty, and customer loyalty plays an important role in the formation of a strong brand image (Neupane, 2015).

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Image is the antecedent of loyalty (Moliner-Velazquez et al., 2017). Image has a direct effect on the purchase decision of the customer due to its risk-reducing feature (Delgado-Ballester et al., 2014). The higher the customer perceives the image, the higher the loyalty. Therefore, there is a significant relationship between image and loyalty (Genoveva, 2015; Keisidou et al., 2013).

Brand image is one of the most complex factors affecting loyalty. Once customers perceived a similar image between their social self-concepts and brand image, their loyalty level is positively affected (Han & Back, 2008). Thus, they can express their identities consciously or unconsciously through their brand preferences. This explains why consumers prefer brands that are compatible with the personality traits that make up their image. This is the way they make sense of their lives (Yeboah-Asiamah et al., 2016). The study hypothesized that:

H₃: Brand image has a significant impact on customer loyalty

2.4. Marketing Innovation and Customer Satisfaction

Marketing innovation has a significant effect on customer satisfaction (Yeh et al., 2019; Zuniga-Collazos & Castillo-Palacio, 2016). Due to this relationship between innovation and satisfaction, it is stated that marketing innovations can be easily perceived by customers and can make companies more willing to invest in this field. However, it should not be seen as a mandatory result that all innovations can always turn into positive customer satisfaction (Simon & Yaya, 2012).

It is understood that marketing innovation increases customer satisfaction and in this context, there is a positive relationship between them (Kafetzopoulos & Psomas, 2016; Marin-Garcia et al., 2021). Innovation not only improves customer satisfaction for companies but also strengthens their strategic positions and improves their innovative capabilities (Hu & Huang, 2011). It is stated that especially great marketing innovations can transform perceptions into satisfaction by influencing positive customer evaluations (Cabral & Marques, 2020). The study hypothesized that:

*H*₄: Marketing innovation has a significant impact on customer satisfaction

2.5. Customer Satisfaction and Customer Loyalty

Loyalty is the most widely recognized response to satisfaction (Moliner-Velazquez et al., 2019). But the relationship between them is not linear. Customers with very low satisfaction levels are likely to abandon the brand. At higher levels of satisfaction, customers are quite satisfied but still find it easy to switch when a better offer comes in. At very high levels of satisfaction, the customer is very likely to repurchase and spread good words about the company. High satisfaction creates an emotional bond between the brand/company and the customer (Kotler & Keller, 2016). The most important contribution that satisfied customers will make to a company is to be loyal customers of that company (Ene & Özkaya, 2014).

Customer satisfaction is the main determinant of customer loyalty (Amha, 2020; Faullant et al., 2008; Karunaratna & Kumara, 2018). When customers are satisfied, they are more willing to recommend it to others and more reluctant to change the brand. However, the studies reveal that very satisfied customers may stop being loyal to the company from time to time, or that satisfaction is not considered a necessity for loyalty (Neupane, 2015). From this, it is understood that satisfaction is necessary but not sufficient for loyalty (Lahap et al., 2016).

The effect of satisfaction on loyalty is an important area of study in the marketing literature. It has a positive effect on both behavioral loyalty and attitudinal loyalty (Yeboah-Asiamah et al., 2016). Studies confirm that customer satisfaction has a statistically significant impact on loyalty (e.g. Chao, 2015; Hu & Huang, 2011; Keisidou et al., 2013). The study hence hypothesized that:

H₅: Customer satisfaction has a significant impact on customer loyalty

3. RESEARCH METHODOLOGY

This research aims to examine the influence of image and satisfaction on the relationship between marketing innovation and loyalty. The research is based on a survey study conducted among the retail dealers of a large-scale company operating in the chemical industry in 50 provinces located in 27 service regions across the country. Many chemical, textile, and computer/electronic product companies focus on their core competencies of product design, development, and marketing (Kotler & Keller, 2016). The company selected for the research has been maintaining its leadership in the sector, both

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with its design, development, production, and marketing activities and with its strong brands.

The research was conducted in Turkey. The number of participants in the provinces has been determined by taking into account the annual sales turnover of the regions. Then e -mails were sent to 319 retailers and data were collected from 311 of them. 12 questionnaires were excluded due to more than one missing value. Table 1 shows the characteristics of the participants (age, experience, gender).

	Participants' gender		Participants' age			Participants' experience			
	f	m	Total	Range	Range Frequency Percentage			Frequency	Percentage
Frequency	37	262	299	60-69	4	1,3%	0-4	18	6,0%
Percent	11,9%	88,1%	100,0%	50-59	79	26,4%	5-9	35	11,7%
				40-49	130	43,5%	10-14	55	18,4%
				30-39	84	28,1%	15-19	123	41,1%
				20-29	2	0,7%	20-24	68	22,7%
				Total	299	100,0%	Total	299	100,0%

Table 1. Characteristics of the Participants

All the questionnaire items are adopted based on a comprehensive literature review. Marketing innovation questionnaire items (six items) are drawn from the studies of Naidoo (2010), Halpern (2010), Uzkurt and Şen (2012), Diaz-Meneses (2016), and Lee et al. (2016). Brand image questionnaire items (four items) are drawn from the studies of Trasorras et al. (2009), Hanaysha et al. (2014), and Yeboah-Asiamah et al. (2016). Customer satisfaction questionnaire items (six items) are drawn from the studies of Thuy and Hau, (2010), Oliver, (2015), and Islam et al. (2021). Customer loyalty questionnaire items (five items) are drawn from the studies of Zeithaml et al. (1996), Moliner-Velazquez et al. (2017), and Islam et al. (2021). Considering the studies, a 21-items scale was designed. Using this scale, a pilot study was conducted with 2 academics and 8 participants. The scale was rearranged considering the results of the study. A 7-point Likert-type scale was used in rating (1 = Strongly disagree, 7 = Strongly agree).

3.1. Research Model

The research model was established to examine the relationship between marketing innovation and loyalty and whether BI and CS act as mediators of image and satisfaction. The research hypotheses were tested with the help of the research model seen in Figure 1.



Figure 1. Research Model

3.2. Data Analysis

There are two discrete classes of factor analysis: 1) Exploratory Factor Analysis (EFA), and 2) Confirmatory Factor Analysis (CFA) (Thompson, 2004). Researchers using EFA are typically in the beginning stages of scale development and may not have firm hypotheses about the nature of the factors underlying responses to their items. Researchers using CFA must be able to specify both the number of factors that are expected and the variables that measure them. There is a practical distinction between EFA and CFA in terms of the software that can be used. EFA can be conducted using SPSS. CFA is a Structural Equation Modeling (SEM) method and requires specialized SEM software (Bandalos, 2018). In this research, SPSS 25 was used for EFA analysis, AMOS 24 was used for CFA and SEM analysis.

The purpose of factor analysis is to help us to understand the number and nature of the dimensions, or factors, underlying a set of variables (Bandalos, 2018). EFA is a powerful and multivariate statistical technique to define the basic structure between variables (Hair et al., 2014). For EFA, first KMO values indicating whether the sample is suitable for testing were calculated. KMO value of less than 0.50 indicates the sample is unacceptable, and a value of between 0.80-0.90 is meritorious appropriate (Kaiser, 1974). Calculated KMO values showed that the data could be factored at a meritorious appropriate level, while Bartlett's Sphericity Test values showed that the data were suitable for factor analysis (for marketing innovation $\chi 2=655,14$, p<0.001; for brand image $\chi 2=1047,34$, p<0.001; for customer satisfaction $\chi 2=538,06$, p<0.001; and for customer loyalty $\chi 2=486,06$, p<0.001). One item each on the MI and CS scales was removed due to crossloading. The EFA results and composite reliability (CR) are shown in Table 2, and the descriptive statistics are given in Table 3.

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Dimensions	Items	Factor Analysis	λ	α	CR
Marketing Innovation	 MI1 Effectiveness of marketing innovations MI2 Regular review of marketing innovations MI3 Developing new techniques to increase sales MI4 Using new methods for promotion MI5 Establishing strategic partnerships in marketing channels MI6 Making product differentiations 	KMO: 0,827 p<0,001 EV: 3,279 %: 54,65	0,817 0,841 0,732 0,634 0,763 0,621	0,830	0,877
Brand Image	 BI1 The brand's representation of stability and strength. BI2 Having a positive image of the brand BI3 Brand trust level BI4 Confidence that the brand will offer the best products 	KMO: 0,857 p<0,001 EV: 3,690 %: 84,21	0,902 0,939 0,918 0,912	0,935	0,955
Customer Satisfaction	 CS1 Satisfaction with the company's products/services CS2 Being satisfied with working with the company CS3 The company's emphasis on satisfaction CS4 The company cares about the customer's opinion CS5 Correct identification of the company's demands and needs CS6 The company is more customer-oriented than its competitors 	KMO: 0,856 p<0,001 EV: 3,198 %: 53,31	0,746 0,749 0,716 0,731 0,729 0,709	0,821	0,872
Customer Loyalty	 CL1 A close and warm relationship with the company CL2 Confidence that any problem will be solved CL3 Prefer company products over other brands CL4 Recommending the brand to acquaintances CL5 Willingness to continue to be a customer of the firm 	KMO: 0,808 p<0,001 EV: 2,887 %: 57,74	0,825 0,703 0,756 0,816 0,689	0,801	0,871

Table 2. Factor Analysis and Scale Reliability

Table 3. Descriptive Statistics

Dimension	Items	Mean	Std.D.
	MI1	3,92	1,02
	MI2	3,95	0,96
Marketing	MI3	3,83	1,40
Innovation	MI4	3,97	1,13
	MI5	3,87	1,05
	MI6	3,88	1,08
	BI1	3,95	1,27
Prand Imaga	BI2	3,98	1,19
Brand Image	BI3	3,90	1,61
	BI4	3,92	1,18
	CS1	4,11	1,28
	CS2	4,13	0,80
Customer	CS3	3,91	1,04
Satisfaction	CS4	3,91	1,01
	CS5	3,96	0,62
	CS6	4,02	0,63
	CL1	4,14	0,98
Customer	CL2	3,98	1,08
	CL3	4,01	1,11
Loyalty	CL4	4,18	1,01
	CL5	4,19	0,88

The Mediating Role of Brand Image and Customer Satisfaction in the Impact of Marketing Innovation on Customer Loyalty (A Case Research in the Chemical Industry) Cronbach's alpha (α) is the most widely used measure for testing reliability (Jonsson, 2000). The generally agreed-upon lower limit for Cronbach's alpha is 0,70, although it may decrease to 0,60 in exploratory research (Hair et al., 2014). The coefficients verify that the scales are accurate and reliable in the research. The hypothesized model is then tested statistically. The structural equation model is seen in Figure 2.



Figure 2. Structural Equation Model

It is understood whether the model is compatible by looking at the goodness-of-fit indexes obtained as a result of the path analysis. In the model, the indexes are observed to be within the desired limits (χ 2=391.309, df=180, χ 2/df =2.173, p<0.001, RMSEA=0.063, GFI=0.889, CFI=0.937) and the results show that the model is adequate. The widely used goodness-of-fit criteria and their acceptable values are shown in Table 4 (Schermelleh-Engel et al., 2003; Tan et al., 2007).

Goodness-of-fit indices						
Acceptable		- Good				
<5	χ^2/df	<2				
<0,08	RMSEA	<0,05				
>0,90	GFI	>0,95				
>0,90	CFI	>0,95				
>0,90	NFI	>0,95				
>0,95	RFI	>0,98				

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The coefficients matrix (Table 5) shows that all the items have an individual significance within the measurement model.

Measurement Model		surement Model β1		Standart Error	Critical Ratio	р	
MI1	<	0,580	1				
MI2	<	0,730	1,359	0,149	9,10	<0,001	
MI3	<	0,521	0,971	0,134	7,23	<0,001	
MI4	<	0,677	1,265	0,145	8,70	<0,001	
MI5	<	0,735	1,301	0,143	9,10	<0,001	
MI6	<	0,696	1,280	0,146	8,78	<0,001	
BI1	<	0,863	1				
BI2	<	0,927	1,034	0,045	22,87	<0,001	
BI3	<	0,886	1,179	0,056	20,96	<0,001	
BI4	<	0,880	0,996	0,048	20,70	<0,001	
CS1	<	0,626	1				
CS2	<	0,622	1,031	0,114	9,06	<0,001	
CS3	<	0,591	1,02	0,118	8,66	<0,001	
CS4	<	0,612	1,052	0,118	8,93	<0,001	
CS5	<	0,749	0,956	0,092	10,44	<0,001	
CS6	<	0,710	1,012	0,101	10,04	<0,001	
CL1	<	0,784	1				
CL2	<	0,667	1,092	0,094	11,65	<0,001	
CL3	<	0,598	1,002	0,098	10,28	<0,001	
CL4	<	0,644	0,716	0,064	11,15	<0,001	
CL5	<	0,589	0,639	0,063	10,11	<0,001	

Table 5. Measurement Model

To test discriminant validity, relationships between the four latent variables were examined. Correlations range from 0.224 to 0.689 (Table 6). According to Kline (2011), these values are expected to be less than 0,85. Accordingly, the results show that discriminant validity is achieved in the model.

Tal	ble	6.	Corre	lation	Matrix
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Dimensions	AVE	1	2	3	4
1. Marketing Innovation	0,547	0,740			
2. Customer Satisfaction	0,842	0,753	0,918		
3. Brand Image	0,532	0,297	0,224	0,729	
4. Customer Loyalty	0,577	0,654	0,689	0,567	0,760

The AVE values are greater than 0.50 (Cheung & Wang, 2017). Square root of AVE on diagonal

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3.3. Mediation Role

In the mediation model (Figure 3), c refers to the total effect in the causal relationship between X (independent variable) and Y (dependent variable). The indirect effect is represented by the multiplication of a and b. The c' path represents the direct effect in the mediation effect control. The mediation role is that the c' effect differs from the c effect and a part of the effect is transmitted by the M mediator variable. The total effect of X on Y will be equal to the sum of the direct and indirect effects (c=c'+ab). In mediation analysis, a mediation effect occurs as the value of the c pathway decreases (Burmaoğlu et al., 2013).



Figure 3. Basic Mediation Model

Bootstrapping is a computer-based method of resampling (Kline, 2011). Bootstrapping employs large numbers of repetitive computations to estimate the shape of a statistic's sampling distribution, rather than strong distributional assumptions and analytic formulas (Mooney & Duval, 1993). According to Rousselet et al., (2019), given the speed of modern computers, for relatively simple applications there is no reason not to use 5,000 or even 10,000 bootstrap samples — except for extra time and energy consumption, there is no negative effect of using more samples. Bootstrapping is a very general approach, in that it can be used for making inferences about indirect effects in any intervening variable model (Hayes, 2009).

The direct effect of marketing innovation on customer loyalty without mediators is shown in Figure 4a and the mediating effects of image and satisfaction are shown in Figure 4b and Figure 4c, respectively. Since the direct effect is significant, thus mediation is tested. Here the mediating roles of image and satisfaction (H_{1b} and H_{1c}) are confirmed, and since the lower and upper values of the confidence interval (CI) do not include zero (Bollen & Stine, 1990), it can be mentioned that there is a mediation effect for both (Table 7).





Mediators	Variables	Standardized	Standart _	Percentile 95% CI		
Methators	Variables	Coefficients	Error	Lower	Upper	
Brand	Marketing Innovation → Brand Image	0,265	0,128	0.065	0,208	
Image	Brand Image \rightarrow Customer Loyalty	0,500	0,038	0,005	0,200	
	CMIN/DF=2,398; RMSEA= 0,068; CFI=	0,952; GFI=0,916	; IFI=0,953			
Customer	Marketing Innovation \rightarrow Customer Satisfaction	0,739	0,111	0.556	0.993	
Satisfaction	Customer Satisfaction \rightarrow Customer Loyalty	1,005	0,139	0,330	0,993	
	CMIN/DF=2,008; RMSEA= 0,058; CFI=	0,947; GFI=0,919); IFI=0,947			

Table 7. Mediation Effects of Brand Image and Customer Satisfaction

The direct, indirect, and total effects of mediators are shown in Figure 5. The fact that CI covers zero in the direct effect of marketing innovation on customer loyalty shows that such an impact cannot be mentioned, that is, the impact is non-exist (Table 8). Thus, the indirect effect of marketing innovation on customer loyalty was found to be significant,

The Mediating Role of Brand Image and Customer Satisfaction in the Impact of Marketing Innovation on Customer Loyalty (A Case Research in the Chemical Industry) and the direct effect was found to be not significant. These results show that the effect is transmitted through the mediators.



Figure 5. The Mediation Effects

Table 8. Direct, Indirect, and Total	Effects of Innovation on Loyalty
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Variables		Standardized	Standart	Critical	Percentil	e 95% CI
		Effects	Errors	Ratio	Lower	Upper
Marketing Innovation	Total	0,654	0,053	12,340	0,570	0,965
\rightarrow	Indirect	0,810	0,113	7,168	0,654	1,291
Customer Loyalty	Direct	-0,156	0,118	-1,322	-0,477	0,063

According to the test results of the research hypotheses, the path coefficient between marketing innovation and customer loyalty was not found to be statistically significant (β =-0,156, p>0,05), thus H_{1a} was not supported. The path coefficient between marketing innovation and brand image (β =0,297, p<0,001), brand image and customer loyalty (β =0,408, p<0,001), marketing innovation and customer satisfaction (β =0,753, p<0,001), and customer satisfaction and customer loyalty (β =0,915, p<0,001) were found to be statistically significant. Thus H_2 , H_3 , H_4 , and H_5 were supported (Table 9).

Structural Relations	β1	β ₂	Standart Error	t-value	р	Hypothesis
H_{1a} : Marketing Innovation \rightarrow Customer Loyalty	-0,156	-0,178	0,107	-1,661	0,097	Not supported
H_2 : Marketing Innovation \rightarrow Brand Image	0,297	0,538	0,125	4,321	<0,001	Supported
H_3 : Brand Image \rightarrow Customer Loyalty	0,408	0,257	0,030	8,605	<0,001	Supported
H_4 : Marketing Innovation \rightarrow Customer Satisfaction	0,753	0,820	0,111	7,387	<0,001	Supported
H_5 : Customer Satisfaction \rightarrow Customer Loyalty	0,915	0,959	0,125	7,685	<0,001	Supported

4. CONCLUSION

The research was conducted to understand the role of brand image and customer satisfaction in the relationship between marketing innovation and customer loyalty. The findings show that the direct effect of marketing innovation on customer loyalty is not significant, and brand image and customer satisfaction convey this effect indirectly. This result reveals that the company's marketing innovations affect loyalty positively and significantly, thanks to the company's good brand image in the market and the satisfaction of its customers.

The results of the research helped to understand the effect of brand image and customer satisfaction on the impact of marketing innovation on customer loyalty in one of the leading companies in the chemical industry. The research has two important results. First, it shows that the impact of marketing innovations made by the company on loyalty was realized through the dimensions of image and satisfaction. Thus, it is understood that the relationship between faster-moving innovation processes and slower-moving loyalty processes can be established through the more permanent image and the more variable satisfaction dimensions. The second is that in the innovation-loyalty relationship, contrary to Neupane (2015), customer satisfaction is superior to brand image. This important result shows that even companies that do not have a negative image in the market can create loyal customers through customer satisfaction. This is a very notable finding.

The results of this research confirm the results reached by Azzam et al., (2021) that marketing innovation has a positive influence on loyalty. It also confirms the view reached by Chuah et al., (2016) that some perceived values can act as a mediator between innovation and loyalty. This result is also compatible with Gupta & Malhotra's (2013) idea that innovation is a value-creating strategy.

The research was carried out for a company that has a strong brand image and high customer satisfaction and has a strong position in the market. Therefore, it is not possible to generalize the results to the sector. The relationship between marketing innovation and customer loyalty can be better understood with studies to be carried out in other companies to understand the roles of the mediators.

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