Buy or Not to Buy-The Paradigm; Understanding Correlation between Brand Perception and Brand Loyalty towards Consumer Buying Decision Process for University Students

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Abstract

Consumer buying decision is a complex process that is influenced by multiple factors including product related attributes, emotional responses and perceptions of value. Understanding the motivating factors behind the consumer buying decisions is most critical for businesses aiming to design and implement effective marketing strategies. This study carefully examines the impact of product quality, customer service and product innovation on consumer buying decision, while also exploring the moderating roles of brand loyalty, brand perception and price. This research is based upon the existing consumer behavior theories and also integrates a comprehensive framework to understand how these key factors influence the buying behavior of consumers in the competitive marketplace. The authors of this study collected data through likert scale questionnaire from the MBA enrolled students of private sector higher studies institutions and private universities present in the Karachi region, and structural equation modeling (SEM) was employed to test the study hypothesis. The results of the study reveal that product quality, customer service and product innovation are the key factors that significantly motivates the consumers to engage in the buying decision. Furthermore, brand loyalty and brand perception also significantly moderate the relationships between the independent variables and buying decisions, enhancing the likelihood of buying when combined with the positive perceptions of the brand and strong customer loyalty. In case of price as moderating variable, demonstrates the mixed effect depending on the interaction with independent variables. The findings of the study mainly contribute to the body of knowledge on consumer buying decision making by highlighting the importance of the both direct and interaction effects of these factors, providing with valuable insights for marketers seeking to influence the consumer choices in an increasingly complex competitive environment.

Keywords: *Buying decision, brand loyalty, brand perception, customer service, product innovation, price, product quality, moderating role.*

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1. INTRODUCTION

Smartphones equipped with cutting-edge technology have emerged as the most widely used means of communication (Bali et al. 2023; Anitha & Devi, 2024). The fourth industrial revolution has driven the process of digitization (Kumar et al. 2022; Schwab, 2024). Mobile phones have evolved to possess more intelligence and enhanced sensing capabilities. The iPhone was introduced in 2007, followed by the Android operating system, which was developed in 2008. Concurrently, telecommunications services transitioned from 2G to 3G and then to 4G networks, resulting in an augmentation in internet speed (Odida, 2024). The success of smartphones was driven by the use of high-capacity silicon processors. The convergence of several factors accelerated the emergence and triumph of smartphones. Smartphones are versatile and efficient devices that enable users to do many tasks such as conducting financial transactions, engaging in mobile shopping, participating in social networking activities, reading electronic newspapers, capturing high-definition images, and recording high-definition movies (Jebarajakirthy & Shankar, 2021). Biometric features such as fingerprint sensors, face recognition, and voice recognition are essential components of smart devices and phones (Chandel et al. 2022).

According to the Pakistan Telecommunication Authority (PTA) there were 192.3 million cellular subscribers by the end of May, 2024. 3G and 4G users by the end of May, 2024 were 133.26 million. Hence, marketing managers must acknowledge the significance of this kind of research on consumer buying decision. A targeted Segmentation, Targeting and Positioning (STP) approach to gain market share will be made possible by an understanding of the customer buying decision (Raj & Rayer, 2022). The buying decision of consumers and the manager's proposed marketing plan are directly related (Zhao et al 2021). With the help of this research marketing managers and design engineers will be able to better understand the thoughts of consumers while they are making smartphone purchas and adjust their product features accordingly. The market and the industry may communicate with each other via this research. Additionally buying behavior of customers has been greatly impacted by advertising, quality, innovative features, and brand itself (Appel et al. 2020).

According to Gogoi (2013), the inclination to buy is complex process and influenced by both internal factors like personal ideas and attitudes, as well as external incentives encountered throughout the purchasing process. Factors such as pricing method, perceived value and quality of product have a strong influence on the probability of purchase. Hoang & Tung (2023) conducted a substantial research, revealing the important impacts of brand perception, personal lifestyles and personalities on buying decisions related to Smartphones. Concurrently Yusuf (2021), conducted an investigation proving the powerful impact of product innovation and brand perception in influencing smartphone buying decisions.

This research provides an innovative perspective by including brand perception and brand loyalty into the consumer purchasing decision framework. This an area has not been thoroughly investigated in a unified way. Unlike past research which often investigates these aspects independently but this study takes a more comprehensive

approach to understanding how brand perception matures into loyalty and then influences buying decisions.

This research is important because it investigates the multifaceted connection between brand perception and brand loyalty offering insight on how these features impact consumer purchase choices. Understanding this relationship is important for businesses and marketers that want to increase brand loyalty, improve marketing techniques and improve customer retention ratio. Businesses that analyze consumer behavior may modify their branding efforts to create loyalty and long term commitment that ultimately improving their market competitiveness. Furthermore the research offers useful insights into consumer psychology helping businesses in aligning their branding and product offerings with customer expectations and emotional connections.

2. LITERATURE REVIEW

Consumer purchasing decisions have been extensively examined in marketing and consumer behavior research. Several models and theories have been created to better understand how consumers evaluate, select and buy products and services. The correlation between brand perception and loyalty has been a focus of marketing and consumer behavior research. Strong brand perception often promotes customer trust and emotional connection. The literature review investigates current studies on brand perception, brand loyalty and its impact on consumer decision-making.

2.1 Consumer Buying Decision

Purchase decision refers to the process of making a decision to purchase a certain brand, which involves studying the factors that influence customer behavior (Adekoya & Laksitamas, 2024). Testa et al. (2024) provide a definition of purchase intention as the inclination of a buyer to acquire a certain product under specific circumstances.

Consumer purchase decision is a complex process, which is usually linked to the consumer perception, behavior, personality, attitude, capacity to buy a product, research regarding the available solution to its need and features of the product. In today's digital era consumers gather sufficient information regarding products and also compare one product with another to reach the buying decision of any specific product (Rasheed et al. 2024). The purchase decision may be altered by factors such as price, perceived quality and value. Furthermore, buyers are influenced by either internal or external incentives during the purchasing process (Gogoi, 2013). The suggested purchase model by researchers outlines six sequential steps that individuals go through before making a purchasing decision. These stages include awareness, knowledge, interest, preference, persuasion and ultimately the purchase (Kotler & Armstrong, 2010; Kawa et al., 2013). Customers see purchasing items with a low rates, simple packaging and little-known brand as high-risk due to the lack of confidence in the quality of these products (Gogoi, 2013).

2.2 Product Innovation and Consumer Buying Decision

New product development is a critical determinant of the buying decision since consumers are increasingly faced with a plethora of choices especially in saturated industries like the mobile phone industry. Product innovation involves the creation of new or transformation of existing models through technology, design, or other means.

Product innovation often acts as a key element in attracting consumers by providing novel and distinctive characteristics that differentiate a product from its rivals (Jayanto, 2025). In the very competitive smartphone industry, firms often offer new models or improve existing ones by including unique features such as upgraded camera systems, extended battery life and foldable displays. These features are aimed at distinguishing their products from those of their rivals and increased appeal from consumers. Kotabe et al. (2021), states that these innovations fulfill current consumer wants and also generate new demands by providing functions that consumers had not previously thought of. This appeal of new features and improves models can lead to a significant increase in consumer interest and consequently, higher the consumer demand (Habibah et al. 2024).

The concrete impact of product innovation on buying decisions may be observed via a range of customer behaviors, such as the initial buying, brand switching, and brand loyalty. In marketplaces where customers are extremely responsive to technology improvements, innovation may act as a catalyst for brand switching. For example, the advent of smartphones with 5G capabilities drove several people to replace their 4G handsets, in search of enhanced connection and superior performance. In a study conducted by Luo (2021), it was shown that customers are frequently motivated to make new purchases due to their desire for the most up-to-date technology, regardless of the functionality of their present equipment. Furthermore, by consistently providing customers with new and better items that keep them engaged with the company, product innovation helps strengthen brand loyalty. This continuous innovation not only entices new consumers but also guarantees the loyalty of current customers, as they eagerly await future advancements that will enhance their ownership experience (Qing et al. 2024).

Current research shows that the buyer is willing to opt for a product that comes with new characteristics or a higher degree of operational capability. This tendency is even more apparent as the contemporary generation of buyers, such as Millennials and Generation Z are more inclined to seek novelties and embrace innovative technologies. Another factor to consider on the demand for new products is the aspect of sustainability where the customers are willing to pay more for products made with environmentally friendly material and cost efficient energy features. Product innovation on the other hand promotes the general image of a brand, which is mostly influential in buying decision. This long-term approach to innovation makes it possible for established brands to gain trust and even loyalty from consumers. According to Mudambi & Schuff (2010), innovative products often benefit from 'halo effect' meaning that the other products from the brand also experience a boost as per the concept of brand equity.

Kotler and Keller (2016) propose that the addition of new product features and enhancements to functionality may result in an increase in the perceived value of the product, which in turn impacts the choice to purchase the product. In addition, innovations that are perfectly in line with the requirements and preferences of customers may provide a powerful value proposition, which in turn makes the product more appealing.

H₁: The innovation in the product has a substantial influence on the consumer buying decision.

2.3 Product Quality and Consumer Buying Decision

The quality of the product is a significant component that plays a role in buying decisions of consumers. Durability, dependability, beauty, performance and overall value are some of the characteristics that are included in its scope. Products of high quality often meet or surpass the expectations of customers and as a result, they play a key part in the decision-making process of consumers.

Product quality encompasses the attributes and qualities of a product that ascertain its capacity to meet consumer requirements (Pane et al. 2024). Perception of a product is often based on concrete factors such as its design, material and functioning, as well as intangible factors like the reputation of the brand and the quality of customer service. According to Zeithaml (1988), perceived quality refers to a consumer's assessment of a product's overall excellence or superiority. The way customers perceive a thing may greatly influence their purchase decisions, since they typically rely on the quality of a product as a mental shortcut for assessing it, particularly when they have several options to choose from. Quality perception continuously affects customer trust, a major buying factor (Tih and Lee, 2013). Good product quality increases customer trust and buying intention. This study found that customers use quality perceptions to assess product dependability in electronics and autos, where product quality might vary greatly (Manap et al. 2024).

H₂: The quality of product has a substantial influence on the consumer buying decision.

2.4 Customer Service and Consumer Buying Decision

Customer service play an important role in promoting consumer buying decision and effecting both first time purchase and long term brand loyalty. High quality of customer service enhance customer trust, satisfaction and positive brand perception that are key determinants of consumer buying behavior (Varga & Albuquerque, 2024). Pre-sales and post-sales services include many sorts of assistance offered to customers before to and after the purchase. Customer service may be defined as a market transaction conducted by an entrepreneur, where the focus of the transaction is neither a physical product nor the transfer of ownership (Kotler, 2009). The research on the study of product quality and service quality in relation to customer buying decisions revealed a significant effect of product and service quality on the

purchasing decisions (Nikhashemi et al. 2012). A recent study by Dakhi (2023), discovered that customer service quality has a significant effect on customers buying decision.

H₃: *The service quality has a substantial influence on the consumer buying decision.*

2.5 Brand perception and Consumer Buying Decision

Recent study has focused on understanding the complex relationship between brand perception and customer buying decision in the Smartphone industry. Brand perception play an important role in promoting consumer preferences and effecting the consumer purchase decision. It is defined as how the customer understand and assign meaning to a brand based on past experiences, associations and other factors of marketing (Alfian et al. 2024). Rizwan et al. (2012) identified a strong association between these two aspects. Study by Shah (2012) and supported by Tariq et al. (2017), emphasizing the considerable connection between brand perception and the probability of making a purchase decision. A brand's perception is a mental representation that a person has of a product, including all the connections and beliefs associated with the brand (Kotler et al., 2001; Adelia et al. 2024). Although intangible, a brand's perception has a considerable impact, as observed by Kotler (2003), by fostering deep relationships between customers and the brand and greatly influencing buying decisions. Hernanta (2017), emphasized the significant influence of brand perception on developing brand equity, which in turn affects consumer buying decision.

Moreover, research conducted by Wu et al. (2011) and Gilaninia & Mousavian (2012) has emphasised the crucial significance of every aspect of brand perception in increasing intention to buy. Brand perception is seen as a valuable asset that helps consumer's link quality and particular knowledge structures with the brand. Le (2023) further support the idea that brand perception plays a crucial role in influencing consumer buying choices when it comes to mobile phones.

H₄: *Brand perception has a substantial influence on the consumer buying decision.*

H₅: *Brand perception has a moderating role in the relationship between product quality and consumer buying decision.*

H₆: *Brand perception has a moderating role in the relationship between product innovation and consumer buying decision.*

H₇: *Brand perception has a moderating role in the relationship between customer service and consumer buying decision.*

2.6 Brand Loyalty and Consumer Buying Decision

The brand of an organization is an intangible asset that plays a crucial function. According to Pappu and Quester (2016), brand trust and brand loyalty are indicators of the level of consumer attachment to a certain brand (Alghizzawi et al. 2024).

Oliver (1999) defines brand loyalty as a strong and unwavering commitment to continually buy a chosen product or service in the future, even when faced with situational pressures and marketing efforts that may tempt one to switch to another option. The use of a purely stochastic technique revealed that brand loyalty in consumers serves as a driving force behind their inclination to engage in purchase and repurchase behavior (Atulkar and Kesari, 2017b). However, the deterministic method demonstrated that customer views about a brand may not always align with their actual behavior in terms of brand loyalty.

Li et al. (2012) claim that the relationship between a consumer and a brand lead to increased attachment and strong emotional connections. Rubio et al. (2017) establish a correlation between brand trust and loyalty with consumer satisfaction, pricing levels, and the perceived brand values. Research also indicates that brand loyalty refers to a consumer's inclination to favor a certain brand based on their past buying experiences (Thompson et al., 2014). This inclination is assessed by the customer's tendency to repeatedly purchase the same brand. Lien et al. (2015) define brand loyalty as the likelihood of a customer switching to a different brand, particularly when the company changes its price, quality, quantity, and features (Westhuizen, 2018). True brand loyalty is characterized by consumers who have a strong emotional tie to a brand and also trust the brand (He et al., 2012).

H8: Brand loyalty has a substantial influence on the consumer buying decision.

H9: Brand loyalty has a moderating role in the relationship between product quality and consumer buying decision.

H10: Brand loyalty has a moderating role in the relationship between product innovation and consumer buying decision.

H11: Brand loyalty has a moderating role in the relationship between customer service and consumer buying decision.

2.7 Price and Consumer Buying Decision

Price is most significant factor that consumers evaluate before making a buying decision regarding any product. Kotler and Keller (2012) and Kotler and Armstrong (2018) defined price as the monetary amount required to acquire a mix of items and services. Prices assist customers in making purchase choices according to the anticipated value of the product (Zhang et al., 2020; Sudaryanto et al., 2021; Alnahhal et al. 2024). Therefore, a producers and marketers must evaluate product pricing to incentivize customers to purchase their goods enthusiastically.

Price thus becomes the most important consideration in purchasing decision. Price indicators have been identified by Ahmed (2020), Zhao et al. (2021) and Wang et al. (2021). (1) Price level is the valuation of benefits and comparison with similar products regarding the price without considering its quality. (2) Price conformity refers to a company's price being equal to the expected rate of the product aimed at consumers. (3) Price competitiveness refers to the price difference between a firm's

price and that of similar products from other firms. According to Al-Salamin et al. (2015), good prices of well-known brands negatively affect the purchasing process. Young people are eager to buy brands, but their low income hinders them from doing so.

H_{12}: *Price has a substantial influence on the consumer buying decision.*

H_{13}: *Price has a moderating role in the relationship between product quality and consumer buying decision.*

H_{14}: *Price has a moderating role in the relationship between product innovation and consumer buying decision.*

H_{15}: *Price has a moderating role in the relationship between customer service and consumer buying decision.*
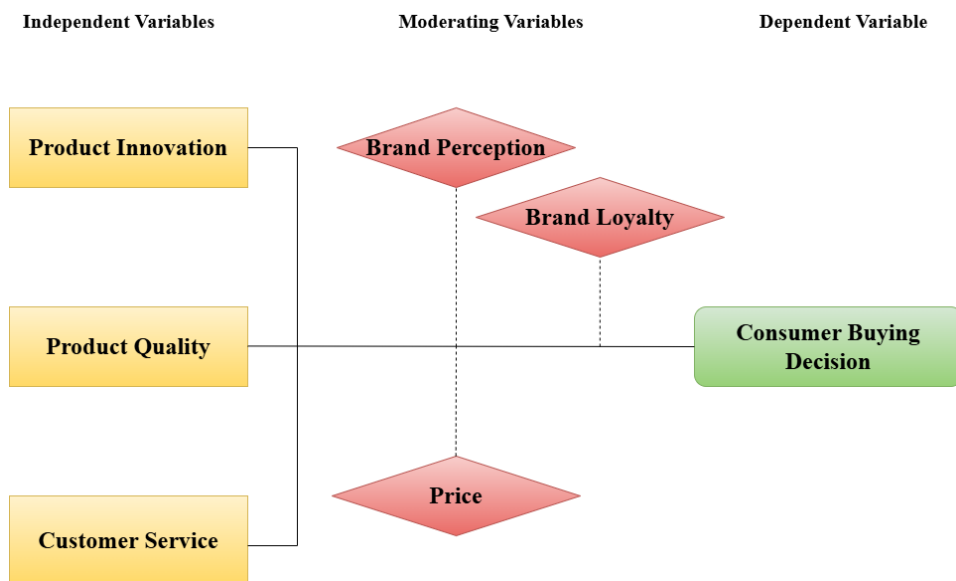
2.8 Conceptual Framework

Figure 1: Conceptual Framework (Source: Author's Construction, 2024)

3. RESEARCH METHODOLOGY

This study adopts a quantitative research design which collects cross sectional data. The authors choose positivists philosophy and deductive approach to evaluate hypotheses for generalized findings.

3.1 Respondents and Sampling

The respondents of the study were MBA students of Private sector higher studies Institutions and Universities of Karachi region, who participated and gave responses in an online survey. The simple convenience sampling technique was applied for collecting data, and the sample size determined were 384, however, we got responses from 390 MBA students.

3.2 Data Collection Instrument

For present study, a questionnaire was adopted from relevant literature for our study variables such as product quality, product innovation, customer service, brand perception, brand loyalty, price, and customer buying decision. The base of this section is on the thoroughly past literature and help from previous studies. First variables contain 5 items and these scales were taken from (Mathwick et al. 2001; Petrick 2002; Sweeney and Soutar 2001) ; Second variable contains 5 items these measures were taken from (Algesheimer, Uptal and Herrmann, 2005; Fullerton, 2005; Third variable contains 5 items and these scales were taken from (Matzler et al. (2008); Chanduhuri and Holbrook, 2001); Fourth variable contains 5 items and these scales are adopted from Yoo et al (2000); Fifth variable has 5 items which were taken from Ragunathan and Irwin (2001); Sixth variable contains 5 items and these were adopted from (Brady and Cronin, 2001; Terblanche and Boshoff, 2001); and the last variable contains 5 items (Boshoff, 2001).

3.3 Operationalizing and Measuring Variables

This study used customer buying decision as dependent variable and contains 5 items. Product innovation, customer service and product quality were used as an independent variables, each of which contain 5 items. Finally study utilized Brand perception, brand loyalty and price are used as moderating variables in the study, each of which also contain 5 items. In this way the questionnaire has total 7 variables and 35 items.

4. RESULTS

4.1 Data Analysis and Results in SPSS

Data was analyzed pertaining to respondents' demographic characteristics in Statistical Package for the Social Sciences (SPSS) version-25. Table 1 below shows that 32.3% of the sample size comprised of female respondents, while there were 67.7% male respondents. 64.1% respondent's fall within the age group of 20-26 years, 29.5% fall in 27-33 years age group, 5.4% belongs to 34-40 years age group and 0.5% fall in the each age group of 41-47 and above 48 years. Further it can be seen in the below table that all respondents are MBA students.

Table 01: Demographic Characteristics

Demographic Characteristics		Frequency	Percent (%)
Gender	Male	126	67.7
	Female	264	32.3
Age Group	20-26	205	64.1
	27-33	115	29.5
	34-40	21	5.4
	41-47	2	0.5
	Above 48	2	0.5
Education: MBA Student	Yes	390	100
	No	00	0

Table 2 below shows university statistics, 4.6% respondents are enrolled in Emaan Institute, 26.7% respondents are enrolled in ILMA University, 8.2% belongs to IoBM, 14.6% are Iqra university enrolled students, 9.5% belongs to KASBIT, 7.4% are from KIET, 7.7% are from KSBL, 5.9% are from MAJU, 14.9% are SZABIST enrolled students, while 0.5% are Ziauddin University students.

Table 02: University Statistics

University Name	Frequency	Percent (%)
Emaan Institute	18	4.6
ILMA University	104	26.7
IoBM	32	8.2
Iqra University	57	14.6
KASBIT	37	9.5
KIET	29	7.4
KSBL	30	7.7
MAJU	23	5.9

SZABIST	58	14.9
Ziauddin University	2	0.5

Table 3 below shows statistics of smartphone brand that our study respondents are using. 17.2% are using Infinix, 13.3 are using OPPO mobile, 46.2% are Samsung smartphone users, 11.8% are using Vivo mobile, while 11.5% respondents are Xiaomi smartphone users.

Table 03: Smartphone Brand Statistics

Smartphone Brand	Frequency	Percent (%)
Infinix	67	17.2
OPPO	52	13.3
Samsung	180	46.2
Vivo	46	11.8
Xiaomi	45	11.5

4.2 Data Analysis and Results in PLS-SEM

Partial Least Square Structure Equation Modeling (PLS-SEM) technique is utilized to estimate the model, analyze data, and compute results through SmartPLS Version 4 (Ringle, Wende, & Becker, 2022). We preferred to use SmartPLS-SEM, as it works in an efficient way with complex models and small sample sizes (Cassel, Hackl, & Westlund, 1999; Hair, Sarstedt, & Ringle, 2019). First we have tested the impact of product innovation, customer service and product quality (independent variables) on Consumer buying decision (dependent variable) to identify the direct impact of independent variables on dependent variable. After that we have introduced 3 moderating variables namely brand perception, brand Loyalty and price in the study model to identify the change in original relationship between independent and dependent variables.

4.3 Measurement Model Assessment

Measurement model highlights the links between constructs and indicators (also referred as outer model) which may be reflective (shows arrows from construct to indicators) as well as formative (shows arrows from indicators to construct) in nature (Hair et al., 2021). As a part of measurement model assessment, we first assessed the quality check of data gathering instrument, such as factor loadings, reliability, convergent validity and discriminant validity.

Table 4. Loadings, Reliability & Validity

Items	Loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
BD1	0.819				
BD2	0.798				
BD3	0.836	0.861	0.863	0.900	0.644
BD4	0.770				
BD5	0.787				
PI1	0.733				
PI2	0.752				
PI3	0.655	0.757	0.766	0.836	0.506
PI4	0.655				
PI5	0.757				
Q1	0.694				
Q2	0.738				
Q3	0.710	0.780	0.784	0.850	0.531
Q4	0.752				
Q5	0.749				
CS1	0.764				
CS2	0.800				
CS3	0.811	0.834	0.849	0.883	0.603
CS4	0.650				
CS5	0.842				
BP1	0.719				
BP2	0.685				
BP3	0.772	0.772	0.777	0.845	0.522
BP4	0.732				
BP5	0.703				
BL1	0.734				
BL2	0.855				
BL3	0.699	0.832	0.850	0.882	0.600
BL4	0.731				
BL5	0.841				
P1	0.735				
P2	0.741				

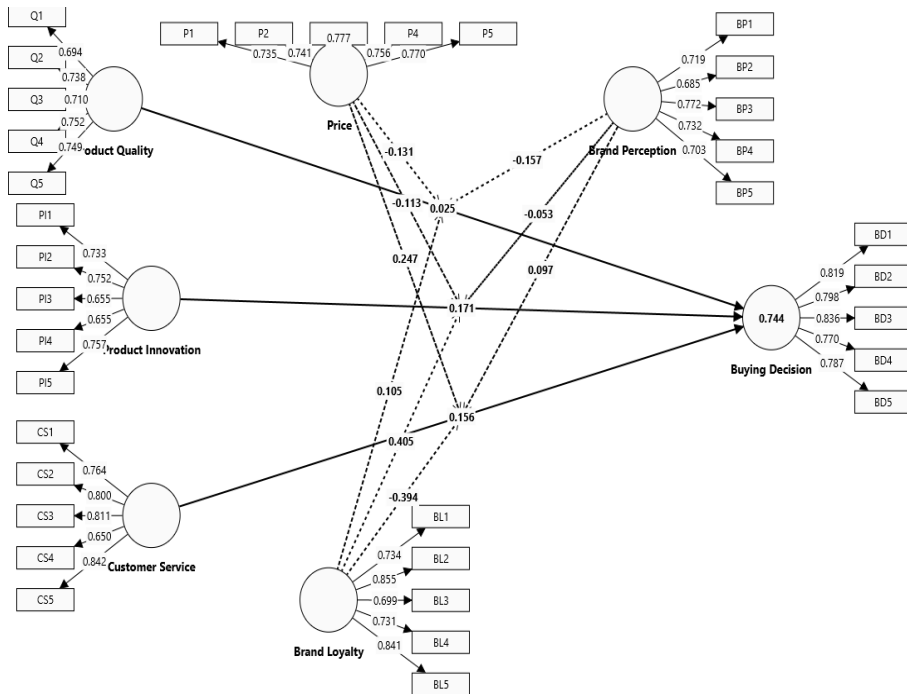|					
P3	0.777	0.813	0.817	0.870	0.572
P4	0.756				
P5	0.770				

Figure 2: Model Assessment Factor Loadings

Table 4 above shows the reliability and validity of the data gathering instrument. Cronbach alpha values of 0.7 or higher indicate acceptable internal consistency (Adams & Wieman, 2010; Taber, 2018). The table indicates that cronbach alpha value of consumer buying decision is 0.832, product innovation has value of 0.757, product quality attains value of 0.780, customer service value is 0.834, brand perception attains value of 0.772, brand loyalty has value of 0.832 and finally price has cronbach's alpha value of 0.813. In addition to the using Cronbach's alpha, composite reliability can be considered to ensure the reliability of the PLS construction score, as defined by Dijkstra & Henseler (2015). Secondly Composite reliability (rho_a and rho_c) threshold value is between 0.60-0.90 (Hair et al. 2021). Composite reliability (rho_a and rho_c)) values of all study variables remained between the threshold values as per above table. Thus, the reliability of the construct is accepted. Finally convergent validity is calculated through average variance extracted (AVE) which is defined as average mean value of square of loadings of items of the construct. The AVE values greater than 0.50 are suggested to explain more than 50% variance in the indicators of the construct (Hair et al. 2019; Hair et al. 2021). As shown in the above table all the variables have AVE value higher than 0.50, which shows that constructs explain more than 50% variance of its items which satisfy convergent validity criteria.

Table 5: Discriminant Validity – HTMT Ratio

	BL	BP	BD	CS	P	PI	PQ	BP x CS	P x PQ	BP x PQ	BL x CS	P x CS	BL x PQ	BP x PI	BL x PI	P x P I
BL																
BP	0.90															
BD	0.883	0.869														
CS	0.862	0.823	0.847													
P	0.828	0.840	0.768	0.714												
PI	0.749	0.883	0.755	0.751	0.721											
PQ	0.707	0.763	0.713	0.767	0.700	0.735										
BP x CS	0.253	0.182	0.157	0.187	0.085	0.060	0.176									
P x PQ	0.197	0.206	0.188	0.080	0.256	0.036	0.191	0.470								
BP x PQ	0.276	0.206	0.239	0.137	0.165	0.108	0.322	0.737	0.641							
BL x CS	0.491	0.193	0.285	0.269	0.074	0.069	0.185	0.709	0.362	0.581						
P x CS	0.094	0.070	0.040	0.047	0.184	0.214	0.140	0.574	0.699	0.488	0.457					
BL x PQ	0.437	0.223	0.240	0.180	0.136	0.109	0.239	0.623	0.541	0.794	0.796	0.415				
BP x PI	0.130	0.080	0.082	0.100	0.101	0.297	0.201	0.579	0.342	0.581	0.470	0.243	0.501			
BL x PI	0.366	0.120	0.098	0.088	0.052	0.195	0.145	0.554	0.316	0.534	0.783	0.258	0.738	0.768		
P x PI	0.090	0.133	0.116	0.218	0.120	0.125	0.180	0.267	0.572	0.380	0.203	0.493	0.312	0.623	0.505	

Table 6: Discriminant Validity – Fornell and Larcker Criterion

	BL	BP	BD	CS	P	PI	PQ
BL	**0.775**						
BP	0.774	**0.723**					
BD	0.757	0.715	**0.802**				
CS	0.728	0.672	0.732	**0.776**			
P	0.679	0.670	0.650	0.598	**0.756**		
PI	0.605	0.689	0.626	0.615	0.568	**0.712**	
PQ	0.571	0.590	0.591	0.620	0.558	0.579	**0.729**

In the table 5 and 6, we have checked the discriminant validity of our study variables through Fornell and Larcker Criterion and HTMT Ratio in PLS-SEM (Algorithm). Discriminant validity indicates the degree to which a construct in the model is different from other constructs in empirical sense (Chin, 2010; Hair et al., 2021; Hair et al. 2019).

In the above table 5, we have proposed Heterotrait-monotrait (HTMT) ratio which is an approach to assess discriminant validity and its recommended threshold values are below 0.85 or up to 0.90 (Clark & Watson, 1995; Gold, Malhotra, & Segars, 2001; Kline, 2011; Henseler, Ringle, & Sarstedt, 2015; Henseler et al., 2015; Henseler et al., 2015; Franke and Sarstedt, 2019). All our study variables HTMT values remained within the threshold values thus qualifying the discriminant validity.
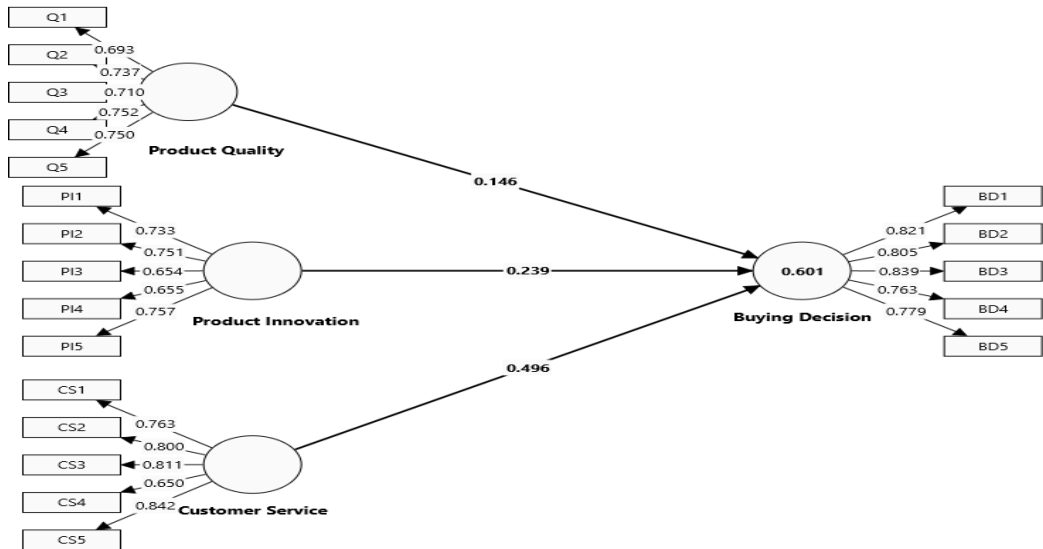
Table 6 above reports the discriminant validity – Fornell and Larcker Criterion calculations and highlighted that diagonal italic bold values are squared AVE which are higher than correlation of other constructs beneath values. This suggests

4.4 Structural Model Assessment

In the table 7 below, a bootstrapping procedure with 5000 resamples has been run to further assess structural paths, significance 95% confidence interval bias corrected and hypotheses testing. The results of the table suggest that customer service has positive and significant impact on customer buying decision with a value of 0.496. This suggest that if customer service increases 1 times then the customer buying decision will increase by 0.496 times. Secondly product innovation has positive and significant impact on customer buying decision with a value of 0.239. This suggest that if product innovation improves 1 time then the customer buying decision will increase by 0.239 time. Finally the product quality also has positive and significant impact on customer buying decision. Results show that customer buying decision will enhance by 0.146 times, if quality of product improves 1 time. Table 7 results validates the study hypothesis 1, 2 and 3. All results analysis are done over the p-value<0.05.

Table 7. Structural Model Assessment and Hypotheses Testing

Variables	β	Standard deviation	T statistics	P values
CS → BD	0.496	0.053	9.341	0.000
PI → BD	0.239	0.052	4.537	0.000
PQ → BD	0.146	0.044	3.329	0.001

Figure 3: Hypothesis Testing

4.5 Structural Model Assessment with Moderating Variables

The table 8 below shows the results of moderation analysis. Customer service has positive significant impact over buying decision with beta value of 0.156. Product innovation also positively and significantly enhance the buying decision of customers by value of 0.171. Product quality positively motivates the buying decision with a value of 0.561. Brand loyalty significantly boost the buying decision of customers with a value of 0.229. Brand perception significantly boost the customer buying decision with beta value of 0.116. Price of product has positive but insignificant impact over buying decision. Brand perception has insignificant moderation impact over the relationship between customer service and buying decision. Price also has insignificant moderation role between product quality and buying decision. Brand perception has significant and negative moderation impact over the relationship between product quality and buying decision. Brand loyalty has negative significant moderating impact over the relationship between customer service and buying decision. Price has positive and significant moderating impact over the relationship between customer service and buying decision with the beta value of 0.247. Further Brand loyalty has insignificant moderating impact over the

relationship between product quality and buying decision. Brand perception has insignificant moderating impact over the relationship between product innovation and buying decision. Brand loyalty has positive significant moderating impact over the relationship between product innovation and buying decision with beta value of 0.405. Price has insignificant moderating impact over the relationship between product innovation and buying decision. All results analysis are done over the p-value<0.05.

Table 8: Moderation Analysis

Variables	β	Standard deviation	T-statistics	P-values
CS → BD	0.156	0.052	2.983	0.003
PI → BD	0.171	0.052	3.316	0.001
PQ → BD	0.025	0.043	0.581	0.561
BL → BD	0.299	0.086	3.467	0.001
BP → BD	0.116	0.058	2.013	0.044
P → BD	0.124	0.065	1.908	0.056
BP x CS → BD	0.097	0.059	1.648	0.099
P x PQ → BD	- 0.131	0.074	1.773	0.076
BP x PQ → BD	-0.157	0.066	2.371	0.018
BL x CS → BD	-0.394	0.118	3.338	0.001
P x CS → BD	0.247	0.074	3.347	0.001
BL x PQ → BD	0.105	0.113	0.926	0.335
BP x PI → BD	-0.053	0.075	0.701	0.484
BL x PI → BD	0.405	0.120	3.384	0.001
P x PI → BD	-0.113	0.082	1.382	0.167

5. DISCUSSION

Understanding consumer perception regarding brand and factors significantly influencing the consumer buying decision is crucial to keep pace with current dynamics of market and gain competitive advantage. The study utilized product innovation, product quality and customer service as independent variables to examine their impact over dependent variable consumer buying decision. Secondly the study used brand perception, brand loyalty and price as moderating variable to identify if any deviation occurs in the original relationship between independent and dependent variables. Study results showed that customer service has significant and positive impact over consumer buying decision. This qualifies our first study hypotheses that consumer service has positive impact on consumer buying decision. Product innovation's significant positive impact is observed via results qualifies our study's second hypotheses that product innovation positively enhance consumer buying decision. Study results proved true to our study's third hypotheses that quality of product positively motivate consumer to engage in buying decision. Moreover study results identified that brand loyalty, brand perception and product price has positive impact on consumer buying decision. This qualifies our study's fourth, fifth and sixth hypotheses. If look over moderating variable results it is clear that brand perception has positive but insignificant impact over the relationship between customer service and buying decision. Price as a moderating variable has negative but insignificant impact over the relationship between product quality and buying decision. Brand perception on the other hand has significant negative impact over the relationship between product quality and buying decision. Brand loyalty has significant negative impact over the relationship between customer service and buying decision. Price has significant positive impact over the relationship between customer service and buying decision. Brand loyalty has insignificant positive impact over the relationship between product quality and buying decision. Brand perception has negative insignificant impact over the relationship between product innovation and buying decision. Whereas brand loyalty has significant positive impact over the relationship between product innovation and buying decision. Finally price has insignificant negative impact over the relationship between product innovation and buying decision.

5.1 CONCLUSION

The article successfully highlight the significant correlation between brand perception and brand loyalty. Customer service positively enhance customer buying decision. While consumers are attracted with product quality and innovation in product. A strong brand perception builds consumer trust and emotional attachment with brand, which in turn triggers brand loyalty and influence purchasing behavior. Understanding these dynamics help brand to develop successful target marketing strategies that appeals consumer preferences and ultimately leads to long term customers retention.

Future research on this topic need to explore impact of social media influence, online reviews and digital marketing strategies to check how these factors shape brand perception and loyalty of consumers toward brand. Moreover other concepts

related to sustainability and green products also need to be assessed to verify change in consumer buying decision.

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