Modeling the Determinants of Brand Loyalty Using PLS-SEM : A Study of Automobile Customers in Emerging Economies

Sushant Kr. Vishnoi [1]
Shahid Akhter [2]
Teena Bagga [3]
Arjun Mittal [4]

Abstract

Purpose : This research proposition aimed to study the brand determinants that impact brand loyalty within the context of the automobile sector. The predictors of brand loyalty considered for this research study include product quality, service quality, price fairness, brand image, perceived value, customer satisfaction, and brand-switching attitude.

Methodology : The study looked at seven independent latent variables: perceived value, brand image, customer satisfaction, price fairness, service quality, and brand-switching attitude. Additionally, the dependent variable chosen was brand loyalty, which is a result of both behavioral and attitudinal loyalty. The data gathered from 305 respondents via a questionnaire survey was analyzed using SmartPLS.

Findings : According to the study's findings, several factors were highly predictive of attitudinal loyalty, including customer happiness, price fairness, service excellence, and brand-switching attitude. Additionally, it was discovered that behavioral loyalty and attitudinal loyalty—a product of the conative, affective, and cognitive loyalty triad—were positively correlated.

Practical Implications : The findings of the study suggested that simultaneously mapping marketing messages or communication by marketing managers with cognitive, emotional, and conative loyalty elements could lead to the successful creation of attitudinal loyalty.

Originality : Unlike prior research on brand loyalty, where different brand loyalty determinants were studied in isolation, their impact on both attitudinal and behavioral loyalty is measured. The current work built an exhaustive model to examine the impact of these determinants on the triad of conative, affective, and cognitive loyalty.

Keywords : **affective loyalty, attitudinal loyalty, automobile sector, behavioral loyalty, brand loyalty, cognitive loyalty, conative loyalty, Smart-PLS**

Paper Submission Date : July 10, 2023 ; Paper sent back for Revision : September 25, 2023 ; Paper Acceptance Date : October 30, 2023 ; Paper Published Online : December 15, 2023

---

[1] *Assistant Professor,* Institute of Management Studies, Ghaziabad, Grand Trunk Rd, Industrial Area, Lal Kuan, Ghaziabad - 201 009, Uttar Pradesh. (Email : drsushantssherawat@gmail.com)
ORCID iD : https://orcid.org/0000-0002-3418-7542
[2] *Professor,* Department of Management Studies, Faculty of Management Studies, Jamia Millia Islamia, Jamia Nagar, New Delhi - 110 025. (Email : sakhter1@jmi.ac.in)
[3] *Professor (Corresponding Author),* Department of Management Studies, Faculty of Management Studies, Jamia Millia Islamia, Jamia Nagar, New Delhi - 110 025. (Email : tbagga@jmi.ac.in)
ORCID iD : https://orcid.org/0000-0002-3723-5132
[4] *Assistant Professor,* Department of Commerce, Hans Raj College, University of Delhi, Mahatma Hans Raj Marg, Malka Ganj, North Campus, University of Delhi, Delhi -110 007. Formerly: *Assistant Professor,* Department of Commerce, Shri Ram College of Commerce, University of Delhi, Delhi -110 007.

DOI : https://doi.org/10.17010/ijom/2023/v53/i12/173352

A key component of the profitability and long-term viability of automakers in the ever-changing automotive ecosystem is brand loyalty. Customers' capacity to stick with a specific brand in the face of a plethora of options affects not just their individual purchase decisions but also the competitive environment of the car industry as a whole (Arvidsson & Melander, 2020; Bhatia & Jakhar, 2021). The automotive industry, characterized by continuous innovation, technological advancements, and diverse consumer demands, has witnessed a paradigm shift in how customers interact with brands (Bashir et al., 2016). Beyond the utilitarian aspects, automobiles now symbolize lifestyle choices, reflecting values, aspirations, and personal identities (Issac et al., 2022). In this dynamic landscape, brand loyalty is a crucial indicator of an organization's market standing and long-term success. A loyal customer contributes to sustainable revenue streams and becomes an advocate, influencing others' perceptions and purchase decisions (Opata et al., 2021). However, achieving and sustaining brand loyalty in the automobile sector takes work. Consumers are exposed to social networking sites, each promising unique features, performance attributes, and experiences (Yadav, 2017). Therefore, exploring the multifaceted factors that drive brand loyalty and discern their interrelationships becomes essential. This research paper proposes to study the determinants that significantly impact brand loyalty within the context of the automobile sector. This research investigation centers on essential determinants: product quality, service quality, price fairness, brand image, perceived value, customer satisfaction, and brand-switching attitude, which are discussed in the parlance of the automobile industry.

Based on the discussions, this research proposes to answer three significant objectives, which are as follows:

- ***RO1 :*** To explore and analyze consumers' brand loyalty toward various car brands.
- ***RO2 :*** To examine the relationship between service quality, perceived value, customer satisfaction, brand image, and brand loyalty in the automobile industry.
- ***RO3 :*** To assess the influence of brand loyalty, brand image, and brand-switching attitude in the automobile industry.

Literature Review

Determinants of Brand Loyalty

Service Quality

Service quality is the degree of excellence, efficiency, and customer-centricity exhibited by a company's service offerings throughout the customer journey (Rashid & Rokade, 2021). It encompasses the responsiveness, reliability, tangibles, empathy, and assurance the service provider provides to customers.

Brand Loyalty

Brand loyalty is the strong and consistent attachment, preference, and repeat purchasing behavior exhibited by consumers towards a specific brand or product (Bhatnagar & Dheeraj, 2019). It reflects the extent to which customers choose a particular brand over alternatives, even when faced with competitive offerings.

Perceived Value

Perceived value is the subjective assessment made by consumers regarding the value and benefits they expect to receive from a product or service about the cost they are willing to pay for it. It is the customers' perception of the overall utility, benefits, and satisfaction they will derive from using a particular offering.

Product Quality

Product quality is defined as the inherent characteristics, attributes, and performance of vehicles that collectively contribute to their overall excellence, durability, safety, and customer satisfaction. It encompasses various aspects that reflect the standard and reliability of a vehicle's design, construction, and components (Waluya et al., 2019).

Brand Switching

Brand switching is the process in which consumers move their loyalty and preference from one brand to another within a particular product category (Ardyan et al., 2021). This shift typically occurs when consumers switch their purchasing decisions from their current or previous preferred brand to a different brand offering similar products or services.

Customer Satisfaction

Customer satisfaction is defined as the extent to which a product or service fulfils customers' expectations, needs, and desires. It represents the overall positive evaluation of a customer's experience based on product quality, service quality, interactions with the brand, and the extent to which the offering meets or exceeds their expectations (Gupta & Raman, 2022).

Price Fairness

Price fairness is the perception of consumers that the price they pay for a product or service is reasonable, justifiable, and equitable about the perceived value they receive (Hamzah & Pontes, 2022). It encompasses the belief that the price accurately reflects the offering's quality, features, and benefits and that customers are not being charged excessively or unfairly.

Conceptual Framework and Hypotheses Development

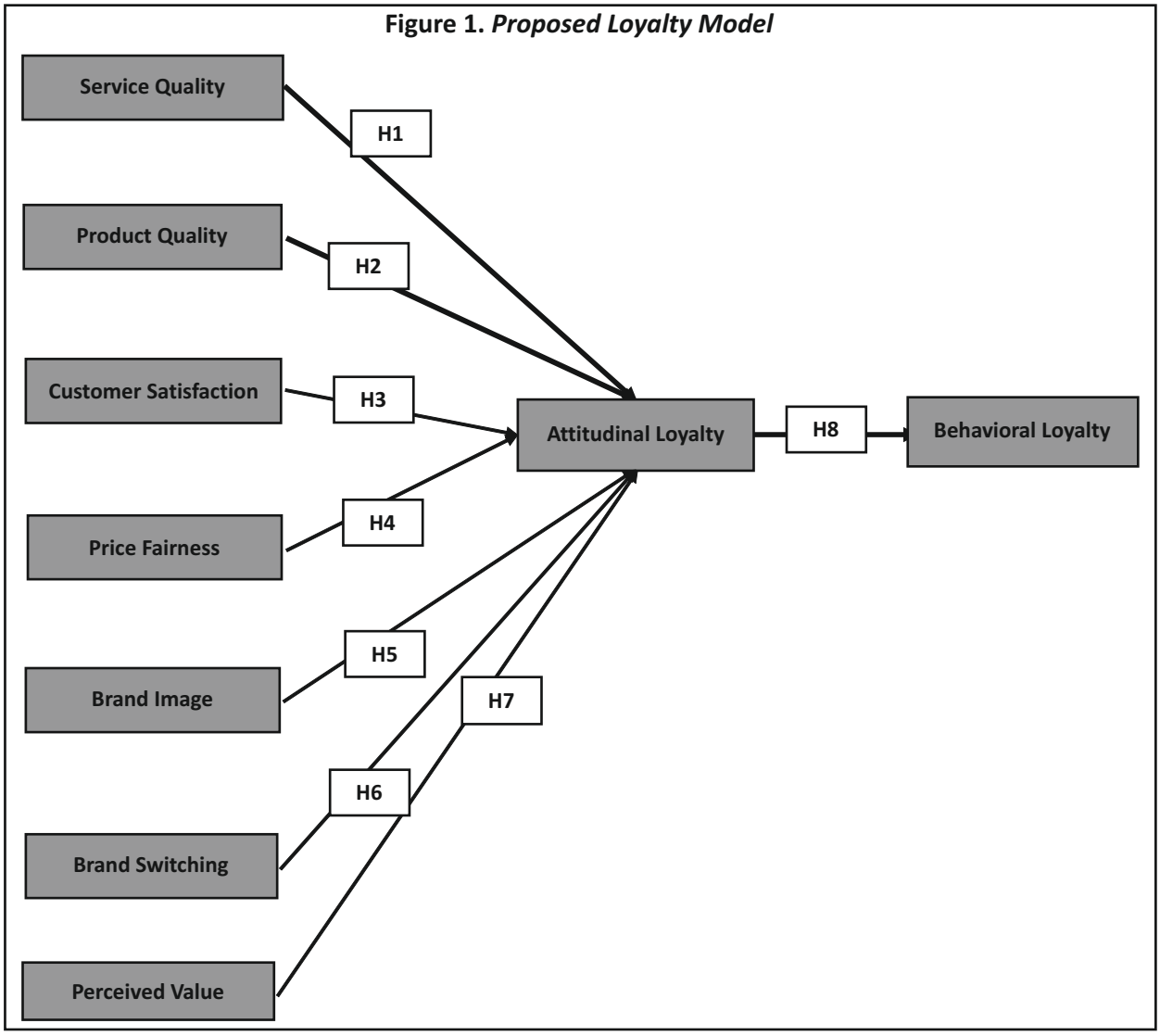
Model of Attitudinal Loyalty Relationship and Its Determinants

This study employs the methodology recommended by Cronin Jr. et al. (2000) to examine and statistically validate the relationships between service quality, perceived value, product quality, consumer satisfaction, brand-switching behavior of customers, brand image, and attitudinal loyalty. Figure 1 presents the development of the present research and addresses the proposed associations between the model's constructs.

Attitudinal – Behavioral Loyalty

According to a research study by Pratkanis and Greenwald (1989) based on psychological studies, attitude plays a significant role in how someone behaves when they have direct experience with something. They also concluded that if the attitude subject is accessible and reliable throughout time, there would be a stronger correlation between these variables. Marketing literature usually recognizes that there is a clear relationship between attitudinal loyalty and behavior loyalty, notwithstanding the mediation of purpose that Ajzen and Fishbein (1977) showed for the relationship between attitude and behavior. Also, empirical data from salespeople's customer orientation (Stock & Hoyer, 2005), the business services industry, and the cruise line industry support this claim (Li & Petrick, 2008). Therefore, this research posits the following hypothesis:

Figure 1. ***Proposed Loyalty Model***



↳ **H1 :** Attitudinal loyalty will have a positive effect on behavioral loyalty (BL).

Service Quality - Attitudinal Loyalty

In the parlance of the automobile industry, several research studies have researched the connections between service quality and related dimensions, including customers' satisfaction, brand image, perceived value, and loyal purchase patterns (Brodie et al., 2009). A 2007 study by Kandampully and Hu found that there should be a more vital link between service quality and brand loyalty. There is disagreement in the literature regarding the connection between customer loyalty and service excellence. Several research studies have validated that service quality substantially affects customer loyalty (Han et al., 2011). Despite the negligible and adverse influence, most studies find a beneficial effect of good service on brand loyalty (Back, 2005). To evaluate brand loyalty, most of these studies, however, employed conative loyalty. Hence, this research posits the following hypothesis:

↳ **H2 :** Service quality will have a positive direct effect on attitudinal loyalty.

Product Quality – Attitudinal Loyalty

A research study by Čater and Čater (2010) examined the relationship between product and relationship quality and its subsequent impact on consumer commitment and loyalty. The findings demonstrated that affective commitment had a positive impact on attitudes and behavior, whereas negative calculative commitment had a positive impact on behavior. Product quality directly influences attitudinal and behavioral loyalty and its indirect effects. The findings suggest that maintaining a customer relationship is more dependent on "emotional" (affective commitment) than on "rational" (critical commitment plus product quality) motivation. Therefore, this research posits the following hypothesis:

- **H3 :** Product quality will have a positive direct effect on attitudinal loyalty.

Customer Satisfaction – Attitudinal Loyalty

Since it influences future consumer purchasing behavior, profitability, and shareholder value, satisfying consumers is crucial (Back & Parks, 2003). Using multivariate models, recent research has looked at customer satisfaction, including its antecedents like product quality, service quality, and brand image, in addition to its outcomes like brand loyalty. Experts agree that perceived value and service level are important elements determining consumer happiness. According to past studies on the relationship between satisfaction and loyalty, customer happiness in the automobile sector is expected to impact customer loyalty directly. A research study by Back (2005) addressed the complicated connection between customer satisfaction and consumer buying behavior in the automobile industry and concluded that customer satisfaction will directly impact attitudinal loyalty. Hence, this research posits the following hypothesis:

- **H4 :** Customer satisfaction will have a positive direct effect on attitudinal loyalty.

Price Fairness – Attitudinal Loyalty

The consumer's engagement in producing distinctive experiences has been further illuminated by recent research on consumer engagement in value co-creation. This research investigates how price fairness affects loyalty and satisfaction in the context of value co-creation in the automotive industry. The primary takeaway from the research study by Bassey (2014) is that pricing fairness has not only a strong moderating effect but also significantly influences satisfaction and attitudinal loyalty. Customers make a significant decision when buying a vehicle; therefore, price becomes crucial in determining their pleasure and brand loyalty. Businesses must be fair with their product pricing as this greatly impacts customers' satisfaction and subsequent repurchases. According to the findings from the paper, loyalty positively influences views of fairness when price increases are small but not when they are large. Hence, this research posits the following hypothesis:

- **H5 :** Price fairness will have a positive direct effect on attitudinal loyalty.

Brand Image – Attitudinal Loyalty

Brand image, defined as the recollection of a consumer's view of a brand, is a key factor in customer loyalty growth. According to Oliver (2010), brand loyalty is about letting customers who can defend the brand in addition to having excellent products and satisfied customers. It is possible to anticipate brand loyalty growth if the company can create, sustain, and capitalize on perceived brand equity (Cretu & Brodie, 2007). Research studies establish that brand image directly impacts customer satisfaction, intention, loyalty, perceived value, perceived

service quality, and satisfaction of customers (Faullant et al., 2008). Therefore, this research postulates the following hypothesis:

↳ **H6 :** Brand image will have a positive direct effect on attitudinal loyalty.

Brand Switching – Attitudinal Loyalty

The market success of brands is significantly influenced by customer satisfaction and brand-switching behavior. The underlying link between these two conceptions can provide insight into what makes modern consumer markets successful. Manimalar and Sudha (2016) looked into the relationship between brand-switching behavior, including attitudes toward and intentions to switch brands and consumer happiness. Organizations may create and evaluate a deterministic model of these interactions by having a thorough understanding of the relationship between customer experience and brand trust, loyalty, and customer pleasure. The study's findings supported the idea that a great customer experience eventually results in a decline in attitudes about switching and switching intentions by having a statistically significant impact on brand trust, customer satisfaction, and brand loyalty. Hence, this research postulates the following hypothesis:

↳ **H7 :** Brand switching attitude of customers will have a negative direct effect on attitudinal loyalty.

Perceived Value – Attitudinal Loyalty

Being a consumer's assessment of what they receive vs. what they are offered, perceived value is crucial to marketing campaigns (Cronin Jr. et al., 2000). Offering excellent customer value benefits both customers and marketers (Nasution & Mavondo, 2008). In service contexts, there has been much focus on the significance of perceived value in affecting a consumer's behavior. Most empirical studies compare perceived service value to other service evaluation categories, including service quality, brand perception, and customer happiness, as well as service outcomes, particularly customer loyalty (Lai et al., 2009). Most of this research supports the associations between customer satisfaction, service quality, and perceived value (Brodie et al., 2009). Evidence from empirical studies shows that perceived value has been linked to attitudinal loyalty in larger study contexts. Therefore, this research postulates the following hypothesis:

↳ **H8 :** Perceived value will have a positive direct effect on attitudinal loyalty.

Research Methodology

Research Instrument and Measurement Item

The data of the present study were collected using a questionnaire comprised of nine constructs with 26 items, as shown in Table 1. As stated, the measurement items for the variables were adapted from scales that have already been validated and then modified for the study's setting. A 5-point Likert scale is used to evaluate each variable, with 1 denoting "*strongly disagree*" and 5 denoting "*strongly agree*."

Table 1. ***Measurement Items***

Construct/Variable	Code	Indicators	Source
Product Quality *(PQ)*	*PQ1*	1. My car is a high-performance vehicle.	Lee & Tai (2009)
	PQ2	2. The automobile I own comes with a proper warranty.	

	PQ3	3. The automobile I own offers high safety.	
Service Quality *(SQ)*	*SQ1*	1. I would say my car's service provider is highly knowledgeable.	Han et al. (2011);
	SQ2	2. I would say my service provider is consistently courteous.	Back (2005)
	SQ3	3. I feel my company is providing convenient operating hours to all its customers.	
	SQ4	4. I feel customers' best interests are at the heart of the company.	
Price Fairness *(PF)*	*PF1*	1. My loyalty toward a brand increases with fairness in price.	Herrmann et al. (2007)
	PF2	2. I am satisfied with the price of my vehicle.	
Brand Image *(BI)*	*BI1*	1. The automobile brand I own has a good reputation.	Kandampully &
	BI2	2. I feel special while using my automobile.	Suhartanto (2003)
Perceived Value *(PV)*	*PV1*	1. I would rate the value for money of the car as high.	Nasution &
	PV2	2. The automobile I own meets my needs.	Mavondo (2008)
Customer Satisfaction *(CS)*	*CS1*	1. I feel the service from my automobile service provider is better than I expected.	Back (2005); Back & Parks (2003)
	CS2	2. I would recommend my automobile service provider's services to a friend or colleague.	
	CS3	3. I am delighted with the quality of the vehicle.	
	CS4	4. Overall, I am satisfied with my decision to purchase the automobile.	
Brand Switching Intention *(BSI)*	*BSI1*	1. How likely are you to switch to a competitor's brand?	Han et al. (2011)
	BSI2	2. I am willing to go in for a repeat purchase of your automobile brand.	
		A. Cognitive Loyalty	
Attitudinal Loyalty *(AL)*	*AL1*	1. The automobile I own provides superior service compared to other brands.	Back & Parks (2003)
	AL2	2. The automobile brand I own has more benefits than the other brands in its category.	
		B. Affective Loyalty	
	AL3	1. I like my automobile brand more than other brands.	Back & Parks(2003); Han et al. (2011)
		C. Conative Loyalty	
	AL4	1. Even if other brands offered a lower rate, I would prefer the brand I own now.	Chitty et al. (2007); Kayaman & Arasli
	AL5	2. In the future, I intend to recommend the automobile to others.	(2007)
Behavioural Loyalty *(BL)*	*BL1*	1. When I purchase a new automobile in the future, I would always go for the same brand I own now.	Han et al. (2011)
	BL2	2. Compared with other car brands in India, I have purchased more often the brand I own now than the others.	

The research paper focuses on modeling the determinants of brand loyalty in the context of automobile customers, utilizing partial least squares structural equation modeling (PLS-SEM). To establish the foundation of the study, pre-validated scales are employed to develop a structured, closed-ended questionnaire. The questionnaire underwent a pre-testing and pilot-testing phase before the data collection. Five automobile brand loyalty experts were requested to provide feedback, and accordingly, the refining of the structure and sequencing was improved.

A preliminary study with 32 participants ensured questionnaire consistency before deploying the final version for data collection. Between December 2022 and May 2023, an online questionnaire was shared with automobile owners for academic purposes, ensuring confidentiality. Using purposive sampling, 324 completed surveys out of 415 were received, resulting in 305 suitable datasets (78.07%), meeting SEM sample size criteria (Kline, 2011).

Table 2. ***Demographic Profile of the Respondents***

Variable	Sub-variable	Frequency	Percentage
Gender	Male	175	57.38
	Female	130	42.62
Age (in years)	18–24	107	35.08
	25–35	161	52.79
	36–45	25	8.20
	46–55	12	3.93
	>55	0	0.00
Automobile Type	Car	134	43.93
	Bike	171	56.07
Occupation	Student	111	36.39
	House Wife	15	4.92
	Business Owner	96	31.48
	Government Officer	32	10.49
	Others	51	16.72
Automobile Brand (Car)	Maruti	69	22.62
	Hyundai	34	11.15
	Toyota	43	14.10
	KIA	26	8.52
	Mahindra	52	17.05
	Tata Motors	60	19.67
	Others	17	5.57
Automobile Brand (Bike)	Hero Moto-Corp Ltd.	48	15.74
	Bajaj Auto Ltd.	27	8.85
	Honda Motorcycle and Scooter India Pvt. Ltd.	34	11.15
	TVS Motor Company Ltd.	55	18.03
	Eicher Motors Ltd. – Royal Enfield India	62	20.33
	Yamaha Motors	41	13.44
	Suzuki Motorcycle India Private Limited	20	6.56
	Others	13	4.26
Association with Auto Company	<6 months	43	14.10
	06 months – 01 year	65	21.31
	01–2 years	87	28.52
	>3 years	108	35.41

An analysis of the demographic profile of the respondents (Table 2) reveals a gender distribution, with 57.38% being males and 42.62% females. This male-dominated pattern is consistent with similar studies in the automotive sector. Additionally, most (52.79%) participants fell within the working-age bracket (25–35 years), aligning with comparable research within the automotive domain. In terms of occupation, students constituted the largest group (36.39%), followed by businessmen (31.48%) and others (16.72%). Conversely, the participation rate of homemakers and government officers was lower, at 4.92% and 10.49%, respectively.

Data Analysis and Results

PLS-SEM is a powerful statistical technique that holds significant advantages when modeling the determinants of brand loyalty, particularly within the context of the automobile industry (Xu et al., 2017). PLS-SEM is particularly well-suited for complex research scenarios, limited sample sizes, and a focus on prediction and explanation (Arumugam et al., 2022). Moreover, PLS-SEM offers flexibility to handle complex and nonlinear relationships and captures the multifaceted nature of consumer behaviors and preferences, providing an enhanced understanding of the drivers of brand loyalty.

Measurement Model

Examining two distinct forms of validity helps assess the measurement model: Discriminant and convergent validity. In order to ascertain how well each item might be utilized to assess the associated study constructs, convergent validity is also used in the research (Hair Jr. et al., 2016). First, according to Hair Jr. et al. (2016), the average variance extracted (AVE) must be greater than 0.5, and the outer loading values must be greater than 0.708. Because removing the item could increase the value of AVE or CR, levels of outer loading between 0.40 and 0.70 should be taken into consideration for deletion (Hair Jr. et al., 2016). Additionally, as the item is considered to be an outstanding consonant (Hulland, 1999), the value of outer loading > 0.5 may also be taken into account (see Table 3).

Table 3. ***Findings of Convergent Validity***

Construct	Item	Factor Loadings	Cronbach's Alpha	CR (rho_a)	(AVE)
Attitudinal Loyalty	*AL_1*	0.908	0.942	0.943	0.812
	AL_2	0.901			
	AL_3	0.917			
	AL_4	0.882			
	AL_5	0.898			
Behavioral Loyalty	*BL_1*	0.937	0.874	0.879	0.888
	BL_2	0.948			
Brand Image	*BI_1*	0.925	0.837	0.837	0.860
	BI_2	0.929			
Brand Switching Attitude	*BSA_1*	0.966	–1.353	0.918	0.672
	BSA_2	0.954			
Customer Satisfaction	*CS_1*	0.918	0.916	0.919	0.800
	CS_2	0.886			
	CS_3	0.904			
	CS_4	0.869			
Perceived Value	*PV_1*	0.930	0.847	0.847	0.867
	PV_2	0.932			
Price Fairness	*PF_1*	0.933	0.846	0.846	0.866
	PF_2	0.929			
Product Quality	*PQ_1*	0.922	0.892	0.895	0.823

	PQ_2	0.883			
	PQ_3	0.916			
Service Quality	*SQ_1*	0.926	0.919	0.920	0.805
	SQ_2	0.878			
	SQ_3	0.885			
	SQ_4	0.900			

Table 4. ***Discriminant Validity : Fornell – Larcker Criterion***

	Fornell – Larcker Criterion								
	AL	***BL***	***BI***	***BSA***	***CS***	***PV***	***PF***	***PQ***	***SQ***
Attitudinal Loyalty	0.901								
Behavioral Loyalty	0.924	0.942							
Brand Image	0.898	0.888	0.927						
Brand Switching Attitude	0.757	0.701	0.673	0.820					
Customer Satisfaction	0.936	0.914	0.918	0.763	0.916				
Perceived Value	0.901	0.845	0.881	0.727	0.894	0.931			
Price Fairness	0.911	0.885	0.884	0.710	0.905	0.881	0.931		
Product Quality	0.903	0.883	0.905	0.684	0.904	0.868	0.887	0.907	
Service Quality	0.912	0.863	0.897	0.692	0.895	0.883	0.888	0.897	0.897

The measurement model is analyzed in the results depicted in Table 3, which shows that the outer loadings, rho_A, and CA are all more than 0.70. These findings established the research study's composite reliability (Fornell & Larcker, 1981). Thus, the convergent validity and reliability requirements for the individual scales and constructs have been met. The discriminant validity is carried out to determine how well the tested constructs differentiated from the other constructs. This study can demonstrate the degree of relationship between two constructs and the number of items that can be used to represent a single construct (Hair Jr. et al., 2016). In order to evaluate discriminant validity, the Heterotrait–Monotrait ratio (HTMT) and the Fornell and Larcker (1981) criterion are used in this investigation.

The Fornell–Larcker criterion suggests that the square root of the AVE for each construct should be greater than the inter-construct correlations. In other words, for a construct to have good convergent and discriminant validity, the AVE of the construct should be larger than the squared correlations between the construct and other constructs in the model. Table 4 displays the AVE squared values for each construct relative to its correlation value after removing several indicators that fell short of the outer loading constraints.

Table 4 indicates that the square root of AVE values is more significant (when reading diagonally) than the correlation of the constructs. Consequently, the measurement model requirements have been satisfied.

Heterotrait–Monotrait Ratio (HTMT)

The criteria for HTMT is that the HTMT value must be more significant than 0.85 (Kline, 2011) or can vary up to 0.90 (Gold et al., 2001). HTMT is used to validate the item correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct. As presented in Table 5, the recorded values lie within the provided threshold of 0.90; discriminant validity is not a concern for the study.

Table 5. ***Discriminant Validity : HTMT***

Heterotrait – Monotrait Ratio (HTMT)									
	AL	***BL***	***BI***	***BSA***	***CS***	***PV***	***PF***	***PQ***	***SQ***
Attitudinal Loyalty									
Behavioral Loyalty	0.86								
Brand Image	0.823	0.861							
Brand Switching Attitude	0.772	0.898	0.812						
Customer Satisfaction	0.473	0.845	0.888	0.822					
Perceived Value	0.196	0.885	0.860	0.894	0.584				
Price Fairness	0.588	0.883	0.672	0.879	0.810	0.846			
Product Quality	0.703	0.863	0.800	0.859	0.761	0.895	0.671		
Service Quality	0.671	0.960	1.023	0.812	0.707	0.920	0.919	0.823	

Structural Model

The second stage involves analyzing the structural model's R^2 and path coefficient results. This is among the most significant criteria for the structural model's validation. The R^2 is also referred to as a coefficient of determination and goodness of fit measure. The R^2 value is displayed as the total variance in percent that accounts for the change in the dependent variable brought on by the independent variable. Therefore, the *R*-squared of behavioral intention is 0.918, indicating that a total shift of 91.8% of BL is experienced due to the brand loyalty model's enlarged dimensions. Similarly, the attitudinal loyalty R^2 is 0.854, showing that the other determinants account for 85.4% of the likelihood of AL.

Postulated Direct Association

The results depicted in Table 6 confirm the hypothesized direct relationship between the independent and dependent components. The findings of Table 6 demonstrate that the direct hypotheses H1, H2, H4, H5, and H7 are supported by individual *t*-values that are more significant than 1.96 and associated probabilities that are less than

Table 6. ***Postulated Direct Association***

	Standard Deviation (STDEV)	***t*-statistics (|O/STDEV|)**	***p* - values**	**2.5%**	**97.5%**	**Decision**
H1: Attitudinal_Loyalty –> Behavioral_Loyalty	0.010	92.108	0.000	0.901	0.942	Supported
H2: Service_Quality –> Attitudinal_Loyalty	0.048	4.546	0.000	0.124	0.314	Supported
H3: Product_Quality –> Attitudinal_Loyalty	0.076	1.488	0.137	–0.030	0.264	Not Supported
H4: Customer Satisfaction –> Attitudinal_Loyalty	0.063	5.048	0.000	0.182	0.433	Supported
H5: Price_Fairness –> Attitudinal_Loyalty	0.052	3.438	0.001	0.077	0.282	Supported
H6: Brand_Image –> Attitudinal_Loyalty	0.060	0.384	0.701	0.095	0.138	Not Supported
H7: Brand_Switching_Attitude –> Attitudinal_Loyalty	0.026	3.320	0.001	0.035	0.137	Supported
H8: Perceived_Value –> Attitudinal_Loyalty	0.045	1.728	0.084	–0.009	0.164	Not Supported

0.05. Therefore, it is validated that factors from the extended brand loyalty model, such as SQ, AL, BSA, CS, and PF, have a significant impact on BL. Additionally, the dimensions PQ, BI, and PV have no significant impact on BL.

Discussion

This study has added to the continuing discussion about the parameters and framework of brand loyalty. According to this study, brand loyalty comprises a single BL dimension and a single first-order hierarchy attitudinal loyalty dimension made up of indications of conative, cognitive, and affective loyalty. The statistical findings demonstrate that cognitive, affective, and conative loyalty are the three indicators of attitudinal loyalty. Compared to their opinions towards other vehicles, these indicators show how buyers felt about the car they were driving (Back & Parks, 2003; Lee & Kim, 2018). Furthermore, the high variance of behavioral loyalty attributable to attitudinal loyalty and the strong correlation between behavioral and attitudinal loyalty suggests that customers' attitude toward the car they currently own in relation to other cars is a significant factor in determining whether they will repurchase the same brand. This finding supports the idea that attitude tends to be a reliable predictor of repeat business (Dick & Basu, 1994; Odin et al., 2001). The structural framework test demonstrates the significance of consumer pleasure, price fairness, switching attitude, and service quality as drivers of brand loyalty. Additionally, the model supports the literature that claims customer satisfaction plays a crucial mediating role in the relationship between the impact of service rating and brand loyalty. This study shows that brand image has no appreciable direct impact on customer satisfaction and attitudinal loyalty, in contrast to the findings of earlier studies (Kandampully & Hu, 2007; Kayaman & Arasli, 2007).

The study finds that neither behavioural loyalty nor attitudinal loyalty is significantly directly impacted by product quality. Therefore, rather than directly impacting brand loyalty, this study shows the essential role of the foundational factors (service quality, pricing fairness, and customer pleasure). Though this relationship has generally been characterized as favorable (Harris & Goode, 2004), this study demonstrates a negative influence of perceived value on attitudinal loyalty (0.083). A study by Zeithaml et al. (1996) highlighted that service quality negatively impacts customer loyalty when the service falls short of the customer's expectations. Therefore, the most likely reason for this conclusion is that the services provided did not meet the customers' expectations. As a result, the standard of service is the least reliable predictor of attitudinal loyalty. This result implies that rather than service quality, as reported by Cronin Jr. et al. (2000) and Lai et al. (2009), consumer attitudinal loyalty seems to be influenced more by perceived value, brand image, and customer pleasure. This study supports Oliver's (2010) claim that loyalty is a required but insufficient prerequisite for fulfillment.

Implications for Managers

The results of this study have several significant implications for managers. To establish BL, automotive companies must concurrently focus on all aspects of attitudinal loyalty while highlighting how their product is superior to that of competitors. To attract and maintain customers, auto brands should provide excellent customer service and a favorable brand image. The study's conclusions also suggest that car makers ought to offer superior customer service compared to other businesses, regardless of how important their products are. Automobile manufacturers must routinely assess customer service performance along with comparing it to that of other brands regarded to be close competitors in order to maintain relative performance. This service assessment will assist automobile businesses in concentrating their efforts on enhancing certain aspects of their services to provide a better service than their rivals and, eventually, foster brand loyalty.

According to this study, attitudinal loyalty is a unified construct that includes elements that represent conative

loyalty (intention to repurchase the car over the others), cognitive loyalty (perception that the brand is advantageous to others), and affective loyalty (liking the brands better than most other brands). This result suggests that rather than the order of these elements as proposed by Oliver (1999), vehicle purchasers regard attitudinal loyalty as the total of cognitive, emotional, and conative loyalty. Concentrating on cognitive messages in marketing communications, such as advertising, for example, may raise customer awareness of the brand; nevertheless, such an approach will be less successful in fostering customer loyalty in an attitude sense. If the message being conveyed in marketing communications concentrates on cognitive, emotional, and conative loyalty elements simultaneously, the creation of attitudinal loyalty will be successful.

Limitations of the Study and Directions for Future Research

The present research has several limitations that should be considered when interpreting the findings. The first limitation pertains to generalizability. Since this research was restricted to a few Indian automobile brands, the findings might not be generalizable to other brands or product categories. Secondly, this study assesses the impact of determinants of brand loyalty on customers' purchasing patterns; future researchers can contemplate modeling related variables like culture, brand prestige, brand heritage, environmental conditions, and other psychological factors impacting customers' brand loyalty. Finally, the present research investigates the direct relationships between different determinants of brand loyalty for customers, and there exists a considerable gap in analyzing the mediation and moderation role of other existing constructs. Hence, future researchers can consider studying the mediating and moderation of constructs like peer pressure and nostalgia in ascertaining the brand loyalty of customers in the automobile sector. Table 7 presents the future research directions in sync with the dimensions of "key research variables and investigative queries."

Table 7. ***Directions for Future Research***

Key Research Variable	Investigative Queries
Cultural Influence	1. How does cultural background influence consumers' brand loyalty in the automobile industry?
	2. Is there a correlation between cultural dimensions and preferences for specific car brands?
Environmental Considerations	1. To what extent do consumers' eco-conscious values impact their loyalty to environmentally friendly car brands?
	2. Can a brand's commitment to sustainability influence long-term brand loyalty?
Peer Influence	1. How do peer influence and recommendations affect consumers' loyalty to specific car brands?
	2. Can the presence of influential peers lead to shifts in brand allegiance within the automobile sector?
Cross-Cultural Analysis	1. What are the cross-cultural variations in brand loyalty determinants across different automotive markets?
	2. How do brand loyalty factors differ between consumers in various regions and countries?
Nostalgia and Heritage	1. How does the nostalgia associated with classic car models influence brand loyalty in the modern era?
	2. Can heritage and brand history evoke stronger loyalty sentiments among consumers?
Psychological Factors	1. What are the psychological underpinnings of brand loyalty, such as emotional attachment and cognitive biases?
	2. How do consumers' emotional connections and cognitive perceptions affect their loyalty to car brands?

Authors' Contribution

Prof. Shahid Akhter and Prof. Teena Bagga conceived the idea and developed a theoretical and conceptual framework to undertake the empirical study. Dr. Sushant Kr. Vishnoi and Dr. Arjun Mittal identified the research gap and literary associations between the study variables. Arjun Mittal conducted the data collection process, and data analysis was performed using SmartPLS by Dr. Sushant Kr. Vishnoi. Finally, Dr. Sushant Kr. Vishnoi wrote the manuscript in consultation with Prof. Teena Bagga and other authors.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgment

The authors received no financial support for the research, authorship, and/or for the publication of this article.

References

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5), 888–918. https://doi.org/10.1037/0033-2909.84.5.888

Ardyan, E., Kurniawan, D., Istiatin, I., & Luhgiatno, L. (2021). Does customers' attitude toward negative eWOM affect their panic buying activity in purchasing products? Customers satisfaction during COVID-19 pandemic in Indonesia. *Cogent Business & Management*, *8*(1), 1952827. https://doi.org/10.1080/23311975.2021.1952827

Arumugam, V., Kannabiran, G., & Vinodh, S. (2022). Impact of technical and social lean practices on SMEs' performance in automobile industry: A structural equation modelling (SEM) analysis. *Total Quality Management & Business Excellence*, *33*(1–2), 28–54. https://doi.org/10.1080/14783363.2020.1791067

Arvidsson, A. (P)., & Melander, L. (2020). The multiple levels of trust when selecting suppliers – Insights from an automobile manufacturer. *Industrial Marketing Management*, *87*, 138–149. https://doi.org/10.1016/j.indmarman.2020.02.011

Back, K.-J. (2005). The effects of image congruence on customers' brand loyalty in the upper middle-class hotel industry. *Journal of Hospitality & Tourism Research*, *29*(4), 448–467. https://doi.org/10.1177/1096348005276497

Back, K. J., & Parks, S. C. (2003). A brand loyalty model involving cognitive, affective, and conative brand loyalty and customer satisfaction. *Journal of Hospitality & Tourism Research*, *27*(4), 419–435. https://doi.org/10.1177/10963480030274003

Bashir, M., Yousaf, A., & Verma, R. (2016). Disruptive business model innovation: How a tech firm is changing the traditional taxi service industry. *Indian Journal of Marketing, 46*(4), 49–59. https://doi.org/10.17010/ijom/2016/v46/i4/90530

Bassey, F. O. (2014). *The effect of perceived price fairness on customer satisfaction and loyalty* [Doctoral dissertation, Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ)]. http://hdl.handle.net/11129/1780

Bhatia, M. S., & Jakhar, S. K. (2021). The effect of environmental regulations, top management commitment, and organizational learning on green product innovation: Evidence from automobile industry. *Business Strategy and the Environment*, *30*(8), 3907–3918. https://doi.org/10.1002/bse.2848

Bhatnagar, E., & Dheeraj, N. (2019). Impact of housekeeping services and practices on customer satisfaction and repeat business. *Prabandhan: Indian Journal of Management, 12*(8), 46–57. https://doi.org/10.17010/pijom/2019/v12i8/146417

Brodie, R. J., Whittome, J. R., & Brush, G. J. (2009). Investigating the service brand: A customer value perspective. *Journal of Business Research, 62*(3), 345–355. https://doi.org/10.1016/j.jbusres.2008.06.008

Čater, T., & Čater, B. (2010). Product and relationship quality influence on customer commitment and loyalty in B2B manufacturing relationships. *Industrial Marketing Management*, *39*(8), 1321–1333. https://doi.org/10.1016/j.indmarman.2010.02.006

Chitty, B., Ward, S., & Chua, C. (2007). An application of the ECSI model as a predictor of satisfaction and loyalty for backpacker hostels. *Marketing Intelligence & Planning*, *25*(6), 563–580. https://doi.org/10.1108/02634500710819941

Cretu, A. E., & Brodie, R. J. (2007). The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective. *Industrial Marketing Management*, *36*(2), 230–240. https://doi.org/10.1016/j.indmarman.2005.08.013

Cronin Jr. J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2), 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2

Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, *22*, 99–113. https://doi.org/10.1177/0092070394222001

Faullant, R., Matzler, K., & Füller, J. (2008). The impact of satisfaction and image on loyalty: The case of Alpine Ski Resorts. *Managing Service Quality: An International Journal, 18*(2), 163–178. https://doi.org/10.1108/09604520810859210

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382–388. https://doi.org/10.1177/002224378101800313

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems, 18*(1), 185–214. https://doi.org/10.1080/07421222.2001.11045669

Gupta, R., & Raman, S. (2022). After-sale service experiences and customer satisfaction: An empirical study from the Indian automobile industry. *Research in Transportation Business & Management*, *45*(Part C), 100873. https://doi.org/10.1016/j.rtbm.2022.100873

Hair, Jr., J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: Part I – method. *European Business Review, 28*(1), 63–76. https://doi.org/10.1108/EBR-09-2015-0094

Hamzah, M. I., & Pontes, N. (2022). What drives car buyers to accept a rejuvenated brand? The mediating effects of value and pricing in a consumer-brand relationship. *Journal of Strategic Marketing*, 1–23. https://doi.org/10.1080/0965254X.2022.2129749

Han, H., Kim, Y., & Kim, E.-K. (2011). Cognitive, affective, conative, and action loyalty: Testing the impact of inertia. *International Journal of Hospitality Management*, *30*(4), 1008–1019. https://doi.org/10.1016/j.ijhm.2011.03.006

Harris, L. C., & Goode, M. H. (2004). The four levels of loyalty and the pivotal role of trust: A study of online service dynamics. *Journal of Retailing*, *80*(2), 139–158. https://doi.org/10.1016/j.jretai.2004.04.002

Herrmann, A., Xia, L., Monroe, K. B., & Huber, F. (2007). The influence of price fairness on customer satisfaction: An empirical test in the context of automobile purchases. *Journal of Product & Brand Management, 16*(1), 49–58. https://doi.org/10.1108/10610420710731151

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, *20*(2), 195–204. https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7

Issac, A. P., Mathew, A. O., & Sriram, K. V. (2022). Drivers of purchase intention - hedonic or utilitarian values? A case of Indian electric car market. *International Journal of Business Excellence (IJBEX)*, *27*(2), 202–219. https://doi.org/10.1504/IJBEX.2022.123517

Kandampully, J., & Hu, H.-H. (2007). Do hoteliers need to manage image to retain loyal customers? *International Journal of Contemporary Hospitality Management, 19*(6), 435–443. https://doi.org/10.1108/09596110710775101

Kandampully, J., & Suhartanto, D. (2003). The role of customer satisfaction and image in gaining customer loyalty in the hotel industry. *Journal of Hospitality & Leisure Marketing*, *10*(1–2), 3–25. https://doi.org/10.1300/J150v10n01_02

Kayaman, R., & Arasli, H. (2007). Customer based brand equity: Evidence from the hotel industry. *Managing Service Quality: An International Journal, 17*(1), 92–109. https://doi.org/10.1108/09604520710720692

Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling. In, *The SAGE handbook of innovation in social research methods*, 562–589. https://doi.org/10.4135/9781446268261.n31

Lai, F., Griffin, M., & Babin, B. J. (2009). How quality, value, image, and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research*, *62*(10), 980–986. https://doi.org/10.1016/j.jbusres.2008.10.015

Lee, S., & Kim, D.-Y. (2018). The effect of hedonic and utilitarian values on satisfaction and loyalty of Airbnb users. *International Journal of Contemporary Hospitality Management, 30*(3), 1332–1351. https://doi.org/10.1108/IJCHM-09-2016-0504

Lee, J.-W., & Tai, S. W. (2009). Determinants of product quality perceptions and their application to marketing standardisation: The case of the automobile in Kazakhstan. *International Journal of Emerging Markets*, *4*(2), 119–136. https://doi.org/10.1108/17468800910945765

Li, X., & Petrick, J. F. (2008). Examining the antecedents of brand loyalty from an investment model perspective. *Journal of Travel Research*, *47*(1), 25–34. https://doi.org/10.1177/0047287507312409

Manimalar, R., & Sudha, S. (2016). Corporate ethical and legal responsibility: Effects of CSR on consumer trust and brand loyalty. *Prabandhan: Indian Journal of Management, 9*(6), 7–19. https://doi.org/10.17010/pijom/2016/v9i6/94957

Nasution, H. N., & Mavondo, F. T. (2008). Customer value in the hotel industry: What managers believe they deliver and what customer experience. *International Journal of Hospitality Management*, *27*(2), 204–213. https://doi.org/10.1016/j.ijhm.2007.02.003

Odin, Y., Odin, N., & Valette-Florence, P. (2001). Conceptual and operational aspects of brand loyalty: An empirical investigation. *Journal of Business Research*, *53*(2), 75–84. https://doi.org/10.1016/S0148-2963(99)00076-4

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, *63*(4_suppl1), 33–44. https://doi.org/10.1177/00222429990634s105

Oliver, R. L. (2010). Customer satisfaction. In, J. N. Sheth & N. Malhotra (eds.). *Wiley international encyclopedia of marketing*. https://doi.org/10.1002/9781444316568.wiem03008

Opata, C. N., Xiao, W., Nusenu, A. A., Tetteh, S., & Asante Boadi, E. (2021). The impact of value co-creation on satisfaction and loyalty: The moderating effect of price fairness (empirical study of automobile customers in Ghana). *Total Quality Management & Business Excellence*, *32*(11–12), 1167–1181. https://doi.org/10.1080/14783363.2019.1684189

Pratkanis, A. R., & Greenwald, A. G. (1989). A sociocognitive model of attitude structure and function. *Advances in Experimental Social Psychology*, *22*, 245–285. https://doi.org/10.1016/S0065-2601(08)60310-X

Rashid, A., & Rokade, V. (2021). Multi - criterion decision making approach to assess retail service quality: A market perspective from Iraq. *Prabandhan: Indian Journal of Management, 14*(3), 49–63. https://doi.org/10.17010/pijom/2021/v14i3/158156

Stock, R. M., & Hoyer, W. D. (2005). An attitude-behavior model of salespeople's customer orientation. *Journal of the Academy of Marketing Science*, *33*(4), 536–552. https://psycnet.apa.org/doi/10.1177/0092070305276368

Waluya, A. I., Iqbal, M. A., & Indradewa, R. (2019). How product quality, brand image, and customer satisfaction affect the purchase decisions of Indonesian automotive customers. *International Journal of Services, Economics and Management*, *10*(2), 177–193. https://doi.org/10.1504/IJSEM.2019.100944

Xu, L., Blankson, C., & Prybutok, V. (2017). Relative contributions of product quality and service quality in the automobile industry. *Quality Management Journal*, *24*(1), 21–36. https://doi.org/10.1080/10686967.2017.11918498

Yadav, M. (2017). Social media as a marketing tool: Opportunities and challenges. *Indian Journal of Marketing*, *47*(3), 16–28. https://doi.org/10.17010/ijom/2017/v47/i3/111420

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, *60*(2), 31–46. https://doi.org/10.1177/002224299606000203

About the Authors

Dr. Sushant Kr. Vishnoi holds a Ph.D. in marketing intelligence, UGC NET qualifications in both management and commerce, and has expertise in teaching and research in marketing with a focus on analytics, marketing research, marketing intelligence, and marketing technologies.

Prof. Shahid Akhter, an esteemed academic and government figure, boasts of a diverse educational background, leading key roles in universities and governmental bodies. With a prolific academic record, authorship, and leadership in various government institutions, he's mentored scholars, contributed to seminars, and received numerous honors for his significant contributions to education and societal development. His diverse involvement includes committee work, research, and academia. He serves as an inspiration to young people, modeling practical information applications.

Prof. Teena Bagga is an enthusiastic educator with a focus on information systems, business analytics, and project management. Her experience spans over 22 years, during which she has authored over 80 research papers, chapters, and four books, 46 of which are indexed by Scopus. She also actively participates in activities related to institution-building, such as curriculum development and accreditation, and has served as an Editorial Board Member for journals indexed by Scopus.

Dr. Arjun Mittal holds a Ph.D. in finance and has around 10 years of experience in research and teaching. He has over 40 books and research papers and is also the recipient of several academic recognitions at various national/ international forums.