
Issues and Perspectives in Business and Social Sciences

Brand loyalty among tile consumers in Sri Lanka: the role of brand equity and customer satisfaction

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Abstract

This research investigates how customer satisfaction acts as a bridge between brand equity and brand loyalty, contributing meaningful implications for branding strategies. Grounded in Expectation-Confirmation Theory (ECT) and guided by Baron and Kenny's (1986) mediation framework, the research analyzes data from a structured survey of 252 respondents using regression analysis and the Sobel test. Findings reveal that brand equity positively influences both customer satisfaction and brand loyalty, while customer satisfaction significantly enhances brand loyalty. Mediation analysis confirms a partial mediating effect, indicating that customer satisfaction strengthens the impact of brand equity on brand loyalty. These results underscore the importance of aligning brand equity elements with customer expectations to foster long-term loyalty. The study contributes to branding literature by highlighting customer satisfaction as a key mechanism in brand-consumer relationships and offers practical implications for marketers. Future research is encouraged to validate these findings across different industries and geographic settings for broader applicability.

Keywords:

Brand equity;
Brand loyalty;
Customer satisfaction;
Expectation-confirmation theory;
Tile industry.

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1. Introduction

Brand equity refers to the value added to a product or service through customer perceptions, associations, and loyalty towards a brand (De Oliveira et al., 2023). It encompasses factors such as brand awareness, perceived quality, brand associations, and trust (Tran et al., 2020). Strong brand equity provides firms with competitive advantages, including the ability to charge premium prices, higher customer retention, and an increased market share (González-Mansilla et al., 2019). By contrast, brand loyalty represents a consumer's commitment to repurchase or repeatedly choose a brand over its competitors due to positive brand associations and past experiences (Parris & Guzmán, 2022). Brand loyalty is a key determinant of long-term business profitability and sustainability, as loyal customers tend to be less price sensitive and more resistant to competitive marketing efforts (Agu et al., 2024). The relationship between brand equity and brand loyalty has been extensively studied, with scholars debating whether brand loyalty is an antecedent or consequence of brand equity. While Parris and Guzmán (2022) suggested that loyalty is a crucial component of brand equity, Keller (1997) argued that loyalty is an outcome of brand equity rather than a determinant. However, the relationship between brand equity and brand

loyalty has been extensively studied, with scholars debating whether brand loyalty is an antecedent or consequence of brand equity. However, most studies have shown that brand equity positively influences brand loyalty by shaping consumer perceptions, trust, and engagement with a brand (Islam et al., 2023).

Recent research highlights the role of customer satisfaction as a key mediating factor in this relationship (Lei & Chu, 2015; Dananjoyo & Udin, 2023). This research is theoretically grounded in Expectation Confirmation Theory (ECT), which posits that brand equity shapes consumer expectations that, when confirmed through performance, generate satisfaction, driving loyalty (Oliver, 2010). Satisfaction arises when a brand consistently meets or exceeds customer expectations, reinforcing positive brand perceptions and deepening consumer commitment (Kataria & Saini, 2019). It serves as a bridge between brand equity and brand loyalty, ensuring that favorable brand associations translate into sustained customer preferences and repeat purchases (Dananjoyo & Udin, 2023). As a result, businesses aiming to strengthen brand loyalty must focus not only on building brand equity but also on enhancing customer satisfaction to cultivate lasting consumer relationships (Kataria & Saini, 2019).

Previous research has consistently found that satisfied customers are more likely to remain loyal (Ata et al., 2023; Zaato et al., 2023). While brand equity and customer satisfaction are established as key drivers of loyalty in fast-moving consumer goods (FMCG) sectors, their interplay in high-involvement "durable" industries remains under researched (Uzir et al., 2025). Notably, in the tile industry, where home ownership is a primary life goal and purchase decisions involve high financial stakes and permanent physical commitment, the risk of post-purchase dissonance is significant, making the "confirmation" of expectations vital. This mediating effect has yet to be empirically analyzed in such a context. This study addresses this gap by examining how brand equity, customer satisfaction, and loyalty operate within Sri Lanka's tile industry. This study contributes to the consumer behavior literature by offering a comprehensive understanding of the interconnection between brand equity, customer satisfaction, and brand loyalty. Through ECT validation and Baron-Kenny mediation analysis, this study provides valuable insights into the Global South. Therefore, the main objective is to investigate the mediating role of customer satisfaction and confirm the significance of brand equity in this high-involvement category.

2. The Sri Lankan tile industry

The Sri Lankan tile industry, a significant subsector of the ceramic industry, plays a vital role in the construction and national economies. Unlike developed markets, where consumer preferences are shaped by established global brands and advanced supply chains, Sri Lanka's tile sector faces unique challenges such as fluctuating production costs, supply constraints, and evolving consumer behaviors. These challenges create a competitive environment, in which brand equity plays a crucial role in sustaining business growth and maintaining customer loyalty. In this context, this study examines both the functional and symbolic aspects of brand equity and brand loyalty within an emerging market such as Sri Lanka, where consumer decision-making differs from that in Western economies (Kataria & Saini, 2019). Branding strategies developed for mature markets may not be directly applicable to developing economies because of socioeconomic variations and distinct consumer mindsets (Sheth, 2011; Hamzaoui Essoussi & Merunka, 2007).

Prior research has predominantly focused on high-involvement product categories, such as hospitality and automobiles, while construction materials, particularly tiles, remain understudied (Devi, 2025). Given its high involvement level, the tile sector provides a unique

case in which perceived quality, brand trust, and lifestyle congruence influence consumers' purchasing decisions. Moreover, Sri Lanka's tile market has witnessed growing brand differentiation through product innovation and strategic positioning, making it essential to explore how brand equity and customer satisfaction contribute to brand loyalty (Shafee, 2023).

The tile industry in Sri Lanka is also characterized by strong promotional activities, competitive pricing, and high consumer awareness, which encourages customers to explore multiple brands before making a purchase decision (Shafee, 2023). Established players differentiate their brands based on functional benefits, such as durability and affordability, or symbolic attributes, such as aesthetic appeal and lifestyle alignment. For instance, brands such as Lanka Tiles PLC and Lanka Walltiles PLC focus on functional quality, whereas Royal Ceramics Lanka PLC adopts a premium lifestyle branding approach. Understanding these dynamics will provide valuable insights for manufacturers, policymakers, and strategists seeking to enhance customer retention and adapt to market shifts in a rapidly evolving industrial landscape.

3. Research framework and hypotheses

ETC provides a strong foundation for understanding how customer satisfaction develops (Oliver, 1980). According to ECT, consumers form expectations of a brand before experiencing its products or services. After consumption, they assess whether the brand's performance meets, exceeds, or falls short of these expectations (Oh et al., 2022). Positive confirmation (when performance exceeds expectations) enhances satisfaction, whereas negative confirmation results in dissatisfaction (Oliver, 1980). Over time, satisfied customers develop a stronger emotional connection with the brand, influencing their behaviors such as repeat purchases and positive word-of-mouth (Oliver, 2010). Brand equity, which comprises service quality, trust, brand identification, lifestyle congruence, and ideal self-congruence, sets customers' initial expectations (Aaker, 1991; Keller, 2009). When a brand meets or exceeds these expectations, it leads to higher satisfaction (Bae & Kim, 2023). This satisfaction, in turn, reinforces brand loyalty, encouraging customers to repurchase, recommend the brand, and maintain long-term commitment (Paulose & Shakeel, 2021).

This study explored the relationship between brand equity and brand loyalty, with customer satisfaction as a mediating variable. Brand equity, comprising perceived quality, ideal self-congruence, brand trust, lifestyle congruence, brand, and identification, serves as the independent variable, while brand loyalty is the dependent variable. The following subsections discuss the hypothesized relationships among these variables within the research framework, as shown in Figure 1.

3.1 Brand equity and brand loyalty

Brand equity refers to the value that a brand adds to a product or service, stemming from consumers' perceptions, associations, and experiences with that brand (Rosenbaum-Elliott et al., 2018). It encompasses key elements such as brand awareness, perceived quality, brand associations, and brand loyalty (Turner & Seock, 2021). In the framework of ECT, brand equity serves as the primary "Cognitive Anchor" that shapes a consumer's pre-purchase expectations. Strong brand equity signifies a positive reputation (Hussain et al., 2023), which inherently raises the performance threshold that a consumer expects from the product. This intangible asset allows a company to differentiate itself from its competitors, creating a competitive advantage that fosters long-term success (Araújo et al., 2023). Brand loyalty, on the other hand, refers to customers' emotional and behavioral commitment to

repurchasing a brand over time, regardless of changes in external factors such as price or availability (Dimitriadis, 2006). It is often viewed as the outcome of sustained positive experiences with a brand driven by consumer satisfaction, trust, and perceived value. The relationship between brand equity and brand loyalty is probably positive, as high brand equity strengthens customer loyalty by creating strong brand associations and consistent quality (Andik & Rachma, 2022).

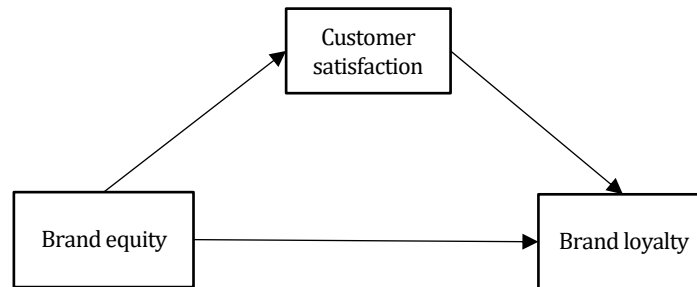


Figure 1: Research framework

Empirical studies have supported this positive relationship. For instance, Hudiono (2023) found that brand equity is a key predictor of brand loyalty as it fosters trust and satisfaction, which, in turn, boosts consumer commitment. Similarly, Ali and Muqadas (2015) found that consumers are more likely to remain loyal to brands with high equity as they perceive these brands as more reliable and satisfying. These findings align with those of Tan et al. (2010), who argue that brands with strong equity experience higher customer retention and lower price sensitivity. Thus, brand equity acts as a foundation for building brand loyalty, functioning as the "expectation" driver that initiates the confirmation process. Therefore, this study proposed the following:

H1: Brand equity positively impacts brand loyalty

3.2 Brand equity and customer satisfaction

Brand equity is a fundamental concept that directly influences customer satisfaction as it includes the value a brand creates in the minds of consumers through consistent positive experiences and strong brand associations (Keller, 2009). A brand with high equity typically has a reputation for quality, reliability, and trustworthiness, which significantly enhances customer perceptions of the brand's offerings (Hyun et al., 2024). According to ECT, reputation acts as a "Pre-purchase Expectation" (Oliver, 1980). When a consumer chooses a high-equity tile brand, they are not just buying a product; they are buying a promise of performance anchored by the brand's market standing. Consumers tend to associate brands with high equity with higher levels of satisfaction because the brand meets or exceeds their expectations, which are built over time through consistent product performance, customer service, and emotional connections (Aaker, 1991).

The various dimensions of brand equity, such as service quality, brand identification, trust, environment, and ideal self-congruence shape customers' attitudes and behaviors towards a brand (Kataria & Saini, 2019). In the tile industry, where the product is a permanent part of the consumer's home, the "Confirmation" of these dimensions is vital. Satisfaction arises when the actual performance of the product confirms the high equity expectations established by the brand's image. When customers have positive brand experiences and trust in the brand's promise, it leads to higher levels of satisfaction, making them more likely

to remain loyal, recommending the brand to others, and making repeat purchases (Hwang & Kandampully, 2022).

Research on the relationship between brand equity and customer satisfaction consistently shows a positive connection, with high brand equity fostering greater customer satisfaction (Panyekar, 2024). This relationship is particularly critical in competitive markets, as businesses with high brand equity tend to enjoy higher customer retention rates and are better positioned to maintain positive customer perceptions (Tahir et al., 2024). Empirical studies support this view by showing that brand equity elements, such as perceived quality, brand trust, brand awareness, and ideal self-congruence, significantly contribute to customer satisfaction (Kataria & Saini, 2019). Ali and Muqadas (2015) found that strong brand equity leads to higher satisfaction levels as customers feel more confident in their purchase decisions, leading to reduced perceived risk and enhanced satisfaction with the brand's offerings. Furthermore, Pappu and Quester (2021) prove that brands with strong equity are more likely to provide superior customer experiences and enhance satisfaction through the process of positive disconfirmation. Therefore, this study proposed the following:

H2: Brand equity positively impacts customer satisfaction

3.3 Customer satisfaction and brand loyalty

Customer satisfaction is commonly defined as a consumer's post-purchase evaluation of whether a product or service meets or exceeds expectations (Oliver, 2010). It is a critical determinant of brand loyalty as it directly influences consumers' emotional attachment to a brand, which strengthens their likelihood of repurchasing and recommending the brand to others (Tuti & Sulistia, 2022). Satisfied customers are more likely to exhibit both attitudinal and behavioral loyalty, creating a deeper bond with the brand (Astuti, 2023). Satisfaction arises from positive experiences related to product quality, service, and overall brand performance, which shape customer perceptions and build trust (Huang et al., 2023). When customers are content with their purchases, they feel a sense of fulfillment and value, which reduces the likelihood of switching to competitors. This emotional connection increases retention and encourages repeat buying behavior, as satisfied customers are more likely to form a long-term commitment to a brand over time (Pappu & Quester, 2021). Additionally, satisfaction plays a pivotal role in reducing customer churn and enhancing overall brand loyalty (Astuti, 2023).

Empirical evidence consistently demonstrates a strong positive relationship between these constructs. Ali and Muqadas (2015) identified customer satisfaction as a significant precursor to brand loyalty, promoting repeat purchases and reducing switching behavior. Furthermore, Thanushan and Kennedy (2020) argued that meeting or exceeding expectations builds the trust and psychological safety necessary for brand advocacy. In light of ECT, this cycle is maintained because the brand's reliability is repeatedly validated, transforming satisfaction into an enduring behavioral pattern. Consequently, fostering satisfaction through the successful confirmation of consumer expectations is essential for building the long-term brand loyalty that drives business success (Huang et al., 2023). Therefore, this study proposed the following:

H3: Customer satisfaction positively impacts on brand loyalty

3.4 The mediating effect of customer satisfaction

Customer satisfaction plays a crucial role in bridging the relationship between brand equity and brand loyalty. Strong brand equity, characterized by brand identification, perceived quality, and trust, creates a cognitive and emotional baseline that enhances satisfaction levels (Pappu and Quester, 2021). From the perspective of ECT, brand equity functions as the

"Expectation" anchor; it provides the promise of value that consumers use as a benchmark for their post-purchase evaluation (Oliver, 1980). While some early studies argued that satisfaction does not directly drive behavioral loyalty (Parasuraman et al., 1988), recent research suggests that it significantly enhances attitudinal loyalty required for long-term commitment (Astuti, 2023).

The mediation effect occurs because brand equity alone may not guarantee loyalty if the specific consumption experience fails to confirm the brand's promise. According to ECT, consumers assess whether a brand's performance meets or exceeds equity-driven expectations (Oh et al., 2022). Satisfaction, therefore, acts as the "Psychological Filter": it converts the abstract value of brand equity into a concrete, positive experience that justifies repeat purchase behavior. As noted by Bae and Kim (2023), when high-equity brands meet expectations, the resulting satisfaction "locks in" the consumer, reinforcing loyalty. In this theoretical path, brand equity initiates the relationship by setting high expectations, while satisfaction validates those expectations, thereby creating an emotional and behavioral commitment known as loyalty (Paulose and Shakeel, 2021). Consequently, satisfaction is not just an outcome but a vital intervening mechanism that explains how brand equity is transformed into enduring brand loyalty (Appendix 1). Therefore, this study proposed the following:

H4: Customer satisfaction significantly mediates the relationship between brand equity and brand loyalty

4. Methods

This study adopted a deductive approach in which hypotheses were formulated and tested through a structured research framework. Given the nature of the conceptual model, the survey method was chosen as the most suitable study approach. This study employed a cross-sectional design, as data were collected at a single point in time. The unit of analysis was individual customers in the Sri Lankan tile industry.

A non-probability convenience sampling method was used to collect data from customers in the Sri Lankan tile industry. A total of 300 questionnaires were distributed both in-person and online over a three-month period. This method was chosen because of its efficiency in gathering a large number of responses within a short timeframe (Hair et al., 2019). After data screening for missing values and incomplete or inconsistent responses, 252 valid responses were retained for the analysis.

This study employed a self-administered questionnaire comprising two sections: demographic characteristics (age, sex, education, marital status, and purchasing experience) and key constructs (brand equity, customer satisfaction, and brand loyalty). Measurement items, shown in Table 1, were adopted from previous studies to ensure reliability, and responses were recorded using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). All measurement items were adapted from the scale developed by Susanty and Kenny (2015) to ensure content validity and consistency with previous branding research.

This study employs Baron and Kenny's (1986) mediation analysis framework to examine the mediating role of customer satisfaction between brand equity and brand loyalty. To assess this relationship, linear and multiple regression analyses were conducted using SPSS (version 23) to evaluate direct and indirect effects. Furthermore, a Sobel test was performed to statistically validate the significance of the indirect effect.

Table 1: Item development

Variable	Variable	Indicator
Brand equity	Perceived Quality (PQ)	1. I find the advantages of being associated with this brand to be attractive.
		2. This brand provides styles that match my preferences.
		3. I appreciate the range of sizes this brand offers.
		4. The company's staff pays attention to and responds to customer concerns.
		5. The company staff members provide useful assistance.
Ideal Self-Congruence (ISC)		6. Employees of this brand treat customers in a warm and welcoming manner.
		1. This brand reflects the kind of personality I ideally prefer.
		2. I see this brand as representing the type of choices I want to make.
Brand Identification (BI)		3. This brand mirrors the identity I want to project to people
		1. I include myself when I talk about this brand, often using "we."
		2. I would feel embarrassed if this brand were negatively featured in the media.
Lifestyle-Congruence (LC)		3. When people criticize this brand, it feels like they're criticizing me personally.
		1. The values of this company mirror my lifestyle.
		2. This brand is a perfect match for my way of living.
Trust		3. Using this tile brand aligns well with the lifestyle I maintain.
		1. This brand offers the best quality products.
		2. This brand has officially approved quality certifications from government authorities.
Customer Satisfaction (CS)		3. The brand offers remedies to handle quality-related problems.
		1. The assistance rendered by a representative of this brand is excellent.
		2. This business provides pretty good style and size solutions.
Brand Loyalty (BL)		3. The display setup and mock-ups this brand has provided are excellent.
		1. I will advise this brand to anyone who asks my opinion.
		2. I'll continue using this brand going forward.
		3. If there is a problem with this brand, I never use another brand.

Note: All measures were adapted from Susanty and Kenny (2015), except for trust, which was adapted from Morgan and Hunt (1994).

5. Results

Respondents' demographic data are presented in Table 2. The majority of the respondents were female (138, 54.8%), with the highest proportion falling within the 26–35 age group (31.8%). Most participants held a bachelor's degree (81, 32.2%), and geographically, the largest group of respondents was from the Western Province (99, 39.3%). In terms of income, most reported earnings were between 71,000 and 100,000 LKR.

5.1 Reliability analysis

Cronbach's alpha was used to assess the reliability and internal consistency of the instrument. According to George and Mallery (2018), a Cronbach's alpha value greater than 0.70 is considered acceptable, with reliability levels categorized as excellent (>0.90), good (>0.80), acceptable (>0.70), questionable (>0.60), and poor (>0.50). Based on the results, the scales demonstrated an acceptable level of internal consistency, with a Cronbach's Alpha value above 0.70, confirming the reliability of the variables. The results are presented in Table 3.

Table 2: Respondents' demographic

Demographic Factors		Data Frequency	Percentage Value
Sex	Male	114	45.2%
	Female	138	54.8%
Age	18-25	25	9.9%
	26-35	80	31.8%
	36-45	61	24.2%
	46-56	65	25.8%
	57 >	21	8.3%
Education Level	Secondary Education	32	12.7%
	Diploma Holder	61	24.2%
	Bachelor's Degree	81	32.2%
	MBA Holder	61	24.2%
	Other	17	6.7%
Income Level	25,000.00 <	14	5.6%
	25,000.00 - 45,000.00	47	18.7%
	45,000.00 - 70,000.00	53	21%
	71,000.00 - 100,000.00	82	32.5%
	100,000.00 >	56	22.2%
Location (Province)	Northern	5	2%
	Southern	14	5.6%
	Eastern	22	8.7%
	Western	99	39.3%
	Sabaragamuwa	19	7.5%
	Central	41	16.3%
	Uva	16	6.3%
	Northwestern	21	8.3%
North Central	15	6%	
Which tile brand do you recommend for purchase?	Rocell	98	38.9%
	Lankatiles	84	33.3%
	Mactiles Lanka	51	20.2%
	Other	19	7.5%

5.2 Regression analysis

To conduct regression analysis, the linearity assumption was tested using Pearson's correlation coefficients (Williams et al., 2013; Abu-Bader & Jones, 2021). This analysis examined the influence of one variable on another to identify the primary relationship. A positive correlation is reflected by values approaching +1, whereas a negative correlation is indicated by values near -1. A value of 0 indicates the absence of any relationship between the variables (Gogtay & Thatte, 2017). According to the results shown in Table 4, BE is significantly and positively related to brand loyalty. ($r=0.541$, $p<0.01$). Similarly, there is a significant positive relationship between brand equity and customer satisfaction ($r=0.645$, $p<0.01$). Moreover, the Pearson correlation coefficient ($r=0.646$) between brand loyalty and customer satisfaction is positive, and the relationship is significant ($p<0.01$). Consequently, each variable demonstrated a meaningful association with the others; thus, the linearity assumption in the analysis was achieved to run the regression analysis.

Conceptually, the four-step mediation analysis proposed by Baron and Kenny (1986) and the SEM approach for assessing mediation are identical. However, researchers have recently drawn attention to potential weaknesses in Baron and Kenny's (1986) method for testing the mediation effect, because it fails to directly convey the numerical value of the significance of the indirect effect (Preacher & Hayes, 2004; Shrout and Bolger, 2002). Therefore, to

investigate the significance of the indirect effect, this study used Baron and Kenny (1986) and Sobel tests.

Table 3: Reliability results

Variable	Dimension	No of Items	Cronbach's Alpha
Brand Equity (BE)	Service Quality	6	0.785
	Ideal Self Congruence	3	0.767
	Brand Identification	3	0.825
	Life Style Congruence	3	0.824
	Trust	3	0.792
Customer Satisfaction (CS)		3	0.841
Brand Loyalty (BL)		3	0.769

Table 4: Correlation analysis results for linearity test

			1	2	3	m	Std. dev.
1	BE	<i>r</i>	1			3.45	0.754
2	CS	<i>r</i>	0.645**	1		3.22	0.843
3	BL	<i>r</i>	0.541**	0.646**	1	3.65	0.586

5.2.1 Step 1

The results are summarized in Table 5. R^2 value of 0.713 indicates that brand equity explains 71.3% of the variation in brand loyalty, while the remaining 28.7% is due to other factors that are not included in this study. The model's F -statistic was 101.453 with a p -value of 0.000, confirming its validity. Additionally, the direct effect of brand equity on brand loyalty was 0.445 with a p -value of 0.000. Since the significance value is below 0.05 ($p < 0.05$), the findings suggest that brand equity has a significant and positive impact on brand loyalty, thereby supporting H1. A simple linear regression equation was formed as follows:

$$BL = 2.073 + 0.445(BE)$$

Table 5: Simple regression analysis for the effect of brand equity on Brand loyalty

Variable	β	Standard Error	β	t	Significance (p)
BE \rightarrow BL					
Constant	2.073	0.190		11.944	0.000
Brand Equity	0.445	0.115	0.207	1.149	0.000

F value = 101.453; $R^2 = 0.713$; Adj. $R^2 = 0.701$

5.2.2 Step 2

Table 6 presents the findings, showing that brand equity accounts for 61.5% of the variation in customer satisfaction ($R^2=0.615$), while the remaining 38.5% is influenced by other factors that are not examined in this study. The validity of the model was confirmed as the F -statistic was significant ($F=399.507$, $p=0.00$). Additionally, the impact of brand equity on customer satisfaction was both significant and positive, given that the p -value was below 0.05 ($\beta=0.767$, $p=0.00$), thereby supporting Hypothesis 2 (H2). Based on these results, a simple linear regression equation was derived, as follows:

$$CS = 0.793 + 0.767(BE)$$

Table 6: Simple regression analysis for the effect of brand equity on Customer Satisfaction

Variable	β	Standard Error	β	t	Significance (p)
BE → CS					
Constant	0.793	0.124		13.901	0.000
Brand Equity	0.767	0.110	0.200	1.100	0.000

F value= 399.507; R² = 0.615; Adj. R² = 0.601

5.2.3 Step 3

Table 7 demonstrates that customer satisfaction explains 67.2% of the variation in brand loyalty ($R^2=0.672$), while the remaining 32.8% is attributed to other factors that were not examined in this study. The model was deemed significant, as indicated by the F -statistic ($F=112.256, p=0.00$). The results further confirm a significant positive relationship between customer satisfaction and brand loyalty ($\beta=0.564, p=0.00$), thereby supporting Hypothesis 3 (H3). Consequently, a simple linear regression equation is derived as follows:

$$BL = 0.632 + 0.564(CS)$$

Table 7: Simple regression analysis for the effect of customer satisfaction on brand loyalty

Variable	β	Standard Error	β	t	Significance (p)
CS → BL					
Constant	0.632	0.117		11.251	0.000
CS	0.564	0.258	0.214	1.325	0.000

F value= 112.256; R² = 0.672; Adj. R² = 0.632

5.2.4 Step 4

The findings indicate that customer satisfaction partially mediates the relationship between brand equity and brand loyalty (Table 8). When both the independent variable (BE) and mediator (CS) were included in the regression model, the impact of brand equity on brand loyalty decreased compared to the initial model, indicating partial mediation. Additionally, the mediating role of customer satisfaction was confirmed, as brand equity remained statistically significant, even after accounting for customer satisfaction. A Sobel test was performed to evaluate the statistical significance of the indirect effect.

Table 8: Multiple regression analysis for the effect of customer satisfaction on brand equity and brand loyalty

Variable	β	Standard Error	β	t	Significance (p)
BE → CS → BL					
Constant	0.030	0.160		0.190	0.000
BE	0.353	0.058	0.361	6.046	0.003
CS	0.649	0.075	0.519	8.692	0.000

F value= 356.02; R² = 0.652; Adj. R² = 0.627

An indirect effect of 0.368 was observed between brand equity and brand loyalty through customer satisfaction, calculated using the unstandardized beta values for the a and b paths ($a \times b = 0.767 \times 0.649 = 0.497$). As shown in Figure 2, because the p -value for the indirect effect of brand equity on brand loyalty through customer satisfaction is below 0.05, the indirect relationship is statistically significant. The findings offer strong evidence that customer satisfaction functions as a significant partial mediator linking brand equity to enhanced brand loyalty. The results are shown in Figure 2, Figure 3, and 9.

Input:		Test statistic:	Std. Error:	p-value:
a	0.767	Sobel test:	5.42942965	0.09168237
b	0.649	Aroian test:	5.40758059	0.09205281
s _a	0.110	Goodman test:	5.4515457	0.09131043
s _b	0.075	Reset all	Calculate	

Figure 2: Results of the Sobel Test

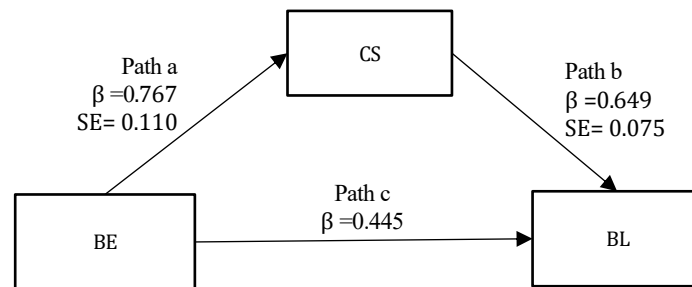


Figure 3: Unstandardized regression coefficients and standard errors

Table 9: Direct and indirect effects

Hypothesis	Path	Effect	B	P value	Hypothesis test results
H1	BE ->BL	Direct	0.445	0.000	Supported
H2	BE ->CS	Direct	0.767	0.000	Supported
H3	CS ->BL	Direct	0.546	0.000	Supported
H4	BE->CS ->BL	Indirect	0.497	0.000	Supported

6. Discussion

In analyzing the connection between brand equity, customer satisfaction, and brand loyalty, this study explores how these variables are interconnected, with a particular focus on understanding the mediating effect of customer satisfaction using the Baran and Kennys method. These findings confirm that brand equity positively influences both customer satisfaction and brand loyalty, highlighting the strategic importance of strong brands in shaping post-purchase evaluations and long-term consumer commitment in high-involvement durable goods markets. The positive relationship between brand equity, customer satisfaction, and brand loyalty is consistent with established empirical literature. Pappu and Quester (2006) demonstrated that brand equity enhances customer satisfaction by strengthening perceptions of quality and reliability, whereas Kataria and Saini (2019) confirmed that brand equity also exerts a direct influence on brand loyalty. Within the Sri Lankan context, Thanushan and Kennedy (2020) similarly report that strong brand equity contributes to both satisfaction and loyalty, underscoring the robustness of these relationships in emerging consumer markets. In the tile industry, where purchases are infrequent, costly, and closely tied to long-term functional outcomes, consumers rely heavily on brand equity to signal expected product performance and risk reduction.

Mediation analysis further reveals that customer satisfaction partially mediates the relationship between brand equity and brand loyalty. When brand equity and customer satisfaction are considered simultaneously, the direct effect of brand equity on brand loyalty weakens but remains significant. This pattern indicates that customer satisfaction operates

as a key psychological mechanism through which brand equity is transformed into loyalty while also suggesting that brand equity has an independent influence on loyalty outcomes. The significance of the indirect pathway, supported by the Sobel test, confirmed that satisfaction played a meaningful intervening role in this relationship. This partial mediation finding closely aligns with those of previous studies. Kataria and Saini (2019) found that customer satisfaction partially mediates the brand equity–brand loyalty relationship, demonstrating that enhanced brand equity generates satisfaction, which subsequently drives loyalty formation.

Karami (2022) documented this mechanism in the medical cosmetics industry, while Thanushan and Kennedy (2020) confirmed partial mediation within Sri Lankan consumer markets. Collectively, these findings emphasize the pivotal role of customer satisfaction in reinforcing the link between brand equity and brand loyalty in diverse industries and contexts. This study extends the applicability of ECT by validating its relevance to the high-involvement, tangible context of the durable goods industry. Within this framework, brand equity serves as the primary antecedent that shapes consumer expectations regarding quality and aesthetics, whereas customer satisfaction acts as the cognitive validation that occurs when product performance confirms these initial benchmarks. In the tile industry, which is characterized by long replacement cycles and high financial stakes, this confirmation process is critical for reducing post-purchase dissonance.

The findings demonstrate that satisfaction operationalizes the confirmation stage of ECT, transforming initial brand promises into sustained psychological commitment of brand loyalty. The results further reveal a dual-pathway mechanism, in which the partial mediation of satisfaction suggests that loyalty is driven by both cognitive confirmation and enduring relational bonds. While expectation-confirmation is a necessary engine for loyalty formation, the direct influence of brand equity remains significant, reflecting the deep-seated role of brand trust, emotional attachment, and symbolic value accumulated over time. By combining ECT, this study explains how customer loyalty has developed in emerging markets. Strong brand equity shapes customers' expectations, and satisfaction confirms their experience after using the product. Together, these lead to long-term loyalty and brand advocacy, giving the brand a strong competitive advantage.

6.1 Implications

This study makes a significant contribution to the branding and consumer behavior literature by reinforcing ECT in the context of brand equity and loyalty. The findings confirm that customer satisfaction acts as a critical mediating mechanism, bridging the relationship between brand equity and brand loyalty. This finding supports existing theories suggesting that when a brand delivers on or goes beyond customer expectations, satisfaction increases, leading to stronger consumer commitment. Furthermore, by empirically validating the partial mediation effect of customer satisfaction using Baron and Kenny's (1986) framework, this study advances the understanding of how brand equity influences loyalty beyond its direct effects. Unlike previous research that primarily examines these relationships in high-involvement product categories, such as automobiles and hospitality, this study expands the theoretical scope by applying the model to a high-involvement but less-explored industry.

From a managerial perspective, this study underscores the crucial role of brand equity and customer satisfaction in fostering long-term brand loyalty. Managers should focus on enhancing the key brand equity components to strengthen customer loyalty. As customer satisfaction partially mediates this relationship, businesses must develop targeted strategies, such as personalized marketing, superior customer service, and consistent brand messaging, to maximize satisfaction and retention. Additionally, firms should regularly measure

customer perceptions to adapt their branding strategies in response to evolving consumer preferences and competitive market conditions.

7. Conclusion and future research directions

Future studies can examine the effects of brand equity and customer satisfaction in different cultural and economic settings to determine their global applicability. Comparative studies of developed and emerging markets can offer deeper insights into how consumer perceptions and purchasing behaviors vary across regions. Furthermore, longitudinal studies can examine how brand loyalty evolves, thus providing companies with strategies to sustain long-term customer relationships. Investigating digital engagement and social media influence as moderating factors in brand equity and loyalty is also essential in the era of digital transformation. These research directions will contribute to a globally relevant understanding of brand management, thereby benefiting businesses, academia, and policymakers worldwide.

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Author contributions: Peiris designed the study, prepared the materials, analyzed the data, and wrote the manuscript. Wijesingha contributed to study conception and data collection. All authors have reviewed and approved the final manuscript.

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