

DESIGN, SERVICE QUALITY, FACILITIES, CUSTOMER SATISFACTION AND CUSTOMER PREFERENCES AT SHOPPING MALLS

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Abstract:

Background: Indonesia's economic growth has transformed consumer behavior, driving demand for malls that serve not only as retail centers but also as hubs for leisure, dining, and social interaction. In Bali, this trend is intensified by the mix of local residents and tourists with diverse expectations. The growing number of malls and rising competition highlight the need to identify key attributes that shape customer satisfaction and preferences, as misalignment may reduce competitiveness in the tourism-driven market.

Purpose: This study aims to examine how design, service quality, and facilities influence customer satisfaction and preferences in modern shopping malls in Bali, and to assess the mediating role of customer satisfaction in these relationships.

Design/methodology/approach: A quantitative research approach was adopted to test the conceptual framework. Data were obtained from 218 respondents who had visited three major shopping malls in Bali, selected through purposive sampling to ensure familiarity with multiple mall environments. A structured online questionnaire was using a Semantic Differential Scale captured perceptions of five latent variables: design, service quality, facilities, customer satisfaction, and customer preferences. Data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS 4.0, enabling the assessment of direct, indirect, and mediating effects in line with the Stimulus–Organism–Response (S-O-R) framework.

Findings/Result: The results indicate that design and service quality significantly enhance customer satisfaction but do not directly influence customer preferences. Facilities emerge as the most influential factor, exerting a direct positive impact on preferences and an indirect effect through satisfaction. Customer satisfaction itself has a significant effect on preferences, underscoring its mediating role in linking mall attributes to behavioral intentions such as loyalty and revisit decisions.

Conclusion: Customer satisfaction serves as a central bridge between mall attributes and customer preferences, underscoring the need for mall operators to invest in comprehensive facilities while maintaining high design standards and service quality to foster positive shopping experiences. In Bali's tourism-driven retail sector, facilities that combine convenience, comfort, and leisure potential are pivotal to securing competitive advantage and encouraging repeat visits.

Originality/value (State of the art): This research contributes to retail management literature by applying the Stimulus–Organism–Response (S-O-R) framework to integrate design, service quality, and facilities into a unified behavioral model explaining both satisfaction and preference formation. By focusing on a tourism-driven market, this study offers practical insights for mall operators, investors, and policymakers aiming to enhance customer experiences and strengthen brand loyalty.

Keywords: design, service quality, facilities, customer satisfaction, customer preferences, shopping mall

How to Cite:

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INTRODUCTION

Indonesia's remarkable economic growth over the past two decades has significantly transformed its urban landscapes and consumer lifestyles. As one of the world's largest economies by purchasing power parity and a key member of the G-20 (Kurniawan & Managi, 2018), Indonesia saw its GDP per capita rising from \$770 in 2000 to \$4,940 by 2023 (World Bank national accounts, 2023). One of the regions most impacted by this transformation was Bali, a premier tourism destination with a hybrid consumer landscape shaped by both local residents and visiting tourists. This economic and cultural shift has fueled the expansion of modern shopping malls, which now served not only as retail hubs but also as venues for leisure, entertainment, and social interaction. According to Badan Pusat Statistik (2020) Indonesia had 649 shopping malls by 2020, with 18 of them located in Bali, primarily in Badung Regency and Denpasar City, highlighting strong demand for lifestyle-oriented retail experiences in the province.

Shopping malls now play a primary role for those seeking entertainment as well as shopping, offering a wide range of products, providing various specialty stores, and presenting attractive recreational options for visitors (Makhitha, 2023). Amid this rapid expansion, shopping mall operators are facing increasingly intense competition, especially in areas where retail centers are densely concentrated. Many malls struggle to retain tenants and sustain foot traffic as consumer behavior evolves in response to rising lifestyle expectations and the growing availability of alternative retail and leisure options (Tsai, 2010; Widiyani, 2018). Today's consumers demand more than just products, they seek immersive and emotionally engaging experiences that offer entertainment, comfort, and social interaction (Sharma et al. 2022). This shift challenges malls to move beyond functional efficiency toward offering differentiated, experiential value. As Kursunluoglu (2014) emphasized, differentiation is now a strategic necessity for retail spaces aiming to stay relevant. However, despite growing interest in customer satisfaction and customer preferences, there is still limited clarity on which specific environmental and service-related attributes most effectively drive customer preferences, particularly in tourism-driven markets like Bali. Without this understanding, mall operators are risk misallocating investment, resources and losing competitiveness in an increasingly dynamic,

experience-based retail landscape. Thus, identifying how physical environmental and service-related attributes influence customer satisfaction and preference becomes essential for ensuring mall sustainability in a competitive environment.

Numerous studies have examined the drivers of mall visitation, satisfaction, and loyalty, but their findings remain highly fragmented due to the inconsistent selection of variables across research contexts. Sharma et al. (2022) focused on ambiance, layout, and utility. In contrast, Al-Sulaiti (2022) included broader factors like destination image, entertainment and service diversity. Adeola et al. (2023) explored mall environment, hedonic and utilitarian value, while Chatzoglou et al. (2022) examined six operational and interactional factors including physical environment, interior shop and layout and staff engagement. Vilnai-Yavetz et al. (2021) identified eight atmosphere-related variables including emotional and material experiences, whereas Goić et al. (2021) emphasized customer demographics and store format. The most extensive frameworks were used by Misra & Verma (2023) and Černikovaitė et al. (2021), who analyzed twelve variables each, covering everything from security and branding to advertising and loyalty programs. Other studies, such as Yuan et al. (2021), emphasized architectural elements, while Buil López-Menchero et al. (2021) addressed customer-centric technological innovations. Meanwhile, Cai & Ng (2019) limited their scope to three basic factors: tenant mix, ambiance, and accessibility. Despite the diversity, design, service quality, and facilities consistently emerge as core elements shaping mall experiences. However, few studies have holistically examined how these three variables interacted to influence customer satisfaction and ultimately drive customer preferences, particularly in tourism-driven markets like Bali. This gap formed the foundation for the present study's novelty and relevance.

In developing the present study, the selection of design, service quality, and facilities as core constructs was grounded in both theoretical relevance and empirical consistency across previous research. The design variable referred to architectural, spatial and aesthetic characteristics, such as layout, lighting and interior style that influence visual comfort and ambiance (Yuan et al. 2021), and would be used to measure how environmental cues shaped customer perception. The service quality variable captured interpersonal aspects of service delivery, such as responsiveness, friendliness,

professionalism and information availability, aiming to assess the perceived value of customer interaction (Chatzoglou et al. 2022). The facilities variable assessed the availability and condition of physical infrastructure, including parking areas, restrooms, entertainment zones, and family-friendly amenities, which supported convenience and overall experience (Al-Sulaiti, 2022). These three independent variables were then linked to two dependent variables: Customer Satisfaction and Customer Preferences. Customer Satisfaction reflected the consumer's internal emotional response to their mall experience, while Customer Preferences related to behavioral tendencies such as revisit intentions, recommendations, and loyalty. These constructs aligned well with the Stimulus-Organism-Response (S-O-R) framework developed by Mehrabian & Russell (1974), in which environmental stimuli (design, service, facilities) affected internal evaluations (satisfaction), which in turn drove behavioral outcomes (preference) (Zhang et al. 2021). By integrating these variables within a unified behavioral model, this study aimed to demonstrate that improving design, service quality, and facilities was essential for enhancing customer satisfaction and, ultimately, influencing customer preferences. The findings are expected to guide shopping mall management, particularly in tourism regions like Bali, in developing experience-based strategies that meet modern consumer expectations and sustain competitive advantage.

This study aimed to analyze the influence of design, service quality, and facilities on customer satisfaction and customer preferences, and to assess the mediating role of customer satisfaction in the relationship between mall attributes and customer preferences, in the context of shopping malls in Bali. Additionally, the insights were intended to assist mall managers, investors, developers, and policymakers in enhancing customer experiences within tourism-driven market environments.

METHODS

This research adopted a quantitative research design to empirically examine the influence of mall design, service quality, and facilities on customer satisfaction and customer preferences, with customer satisfaction also tested as a mediating variable and grounded in the Stimulus-Organism-Response (S-O-R) framework. The research was conducted for approximately 6

months from September 2024 until February 2025. The research was conducted in Bali Province, one of Indonesia's key economic and tourism regions. Bali presented a uniquely hybrid consumer landscape, where shopping behavior reflected both local cultural values and the expectations of tourists. This made it a relevant and strategic setting for studying modern retail preferences in high-tourism economies.

Primary data were collected using a structured questionnaire distributed online via Google Form. The questionnaire was designed to measure consumer perceptions across five latent variables: Design (D), Service Quality (SQ), Facilities (F), Customer Satisfaction (CS), and Customer Preferences (CP). A Semantic Differential Scale ranging from 1 to 8 was used, where responses from 1 - 4 indicated levels of disagreement and 5 - 8 reflected agreement, allowing respondents to express nuanced attitudes toward each factor.

A purposive sampling technique was applied to ensure that respondents were relevant to the study objective. The sample consisted of individuals who had visited multiple shopping malls in Bali and could thus evaluate their experiences across different settings. Out of 250 distributed questionnaires, 218 valid responses were collected and used for further analysis.

To evaluate the proposed conceptual model and test the hypotheses, the study employed Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) using SmartPLS 4.0 software. SEM-PLS was selected due to its suitability for complex models, smaller sample sizes, and predictive accuracy. This approach enabled the simultaneous analysis of direct and indirect relationships among the variables, including mediation effects of customer satisfaction.

This research places its analytical focus on three interrelated aspects that consistently appear in previous literature related to shopping malls: design, service quality, and facilities. These elements, while distinct in nature, contribute collectively to shaping a visitor's overall impression and level of comfort within a retail environment. Design refers to the aesthetic and spatial features that influence how customers navigate and emotionally engage with the space. Service quality captures the human side of the experience, including how effectively staff respond to needs, offer assistance, and create a welcoming atmosphere. Facilities,

meanwhile, represent the supporting infrastructure - from clean restrooms and signage to parking and leisure areas - that enables ease, safety, and added value during a visit. Taken together, these dimensions serve as key external stimuli in the Stimulus-Organism-Response (S-O-R) model, which frames how people interpret and react to their environment. Their inclusion in this research is intended to offer a more integrated understanding of how external conditions translate into customer satisfaction and ultimately influence visitor preference.

Design is one of the main factors that significantly influence customers' experiences when visiting a shopping mall. Design refers to the layout, lighting, architectural visuals, and physical comfort of a shopping mall, which can create a more comfortable and enjoyable shopping experience. Yuan et al. (2021) identified 13 design elements that impact customer experience, with layout, lighting, visual environment, and comfort of the physical environment being the most impactful elements. In line with these findings, Spence (2020), stated that designs that engage various senses harmoniously can enhance the quality of the shopping experience for visitors. Additionally, Černiková et al. (2021) emphasized the importance of well-planned, spacious, and comfortable layout design as a key strategy in improving customer experience and attracting more visitors. Research by Cai & Ng (2019) also showed that a unique atmosphere can be created through attractive interior and exterior design, creative decorations, and sensory elements such as lighting, temperature, and music, which will make customers feel comfortable and enthusiastic while shopping, encourage them to extend their visit time, and increase the likelihood of return visits in the future. Moreover, Vilnai-Yavetz et al. (2021) stated the interior design of malls significantly impacts customer shopping behavior and preferences. Similarly Wakefield & Baker (1998) noted that mall layout, architecture, interior decorations, and music can generate excitement and a desire for customers to stay longer. Study conducted by Faria et al. (2022) supported the importance of store/mall design, stating that it influences customer satisfaction, which ultimately affects customer preference. This is because these aspects contribute to the mall's atmosphere and determine whether customer feel comfortable or find it easy to use the shopping mall (Makhitha, 2023). From this, the following hypotheses are proposed:

- H1: Design has a positive influence on customer satisfaction
- H5: Design has a positive influence on customer preferences
- H8: Customer satisfaction mediates the relationship between design and customer preferences

Another factor that also influences customer experience and satisfaction in shopping malls is service quality. Studies conducted by Ahmad & Mohammad (2012); Chatzoglou et al. (2022); Khatab et al. (2019), argued that providing high-quality service not only enhances customer satisfaction but also significantly contributes to fostering customer loyalty and increasing the likelihood of repeat visits to the shopping mall. Ogiemwonyi (2020) suggested that the main objective of providing quality service is to attain customer satisfaction. Service quality and customer satisfaction are two fundamental concepts in marketing practices (Spreng et al. 1996). These conclusions are consistent with the research by Ong et al. (2022), which found that customers view service quality and the value of a shopping mall as important aspects determining their satisfaction level while shopping. Kursunluoglu (2014) further added that customer satisfaction can be achieved by meeting their expectations through adequate customer service. Forms of customer service include service speed, staff friendliness and professionalism, response to complaints, and the availability of information services that assist customers while shopping in the mall. Superior service quality not only meets customer expectations but also creates a positive shopping experience, ultimately enhancing customer loyalty to the mall. Hence, the following hypotheses are formulated:

- H2: Service quality has a positive influence on customer satisfaction
- H6: Service quality has a positive influence on customer preferences
- H9: Customer satisfaction mediates the relationship between service quality and customer preferences

Facilities also play a significant role in shaping customer satisfaction and preferences when selecting and visiting a shopping mall. These facilities encompass essential services such as provisions for individuals with disabilities, emergency services, safety and security measures, as well as amenities like escalators, elevators, and signboards. Tongue et al. (2010) highlighted that basic facilities play a crucial role in the customer decision-making process, while the absence of such

services has a negative impact on customers. These findings align with research by Kushwaha et al. (2017) which stated that facilities such as spacious parking areas, dining options, prayer rooms, comfortable seating areas, customer service centers, entertainment venues, clean and comfortable restrooms, and other recreational areas significantly contribute to maintaining customer comfort and satisfaction while shopping. Buil López-Menchero et al. (2021) emphasized that modern and innovative facilities have a positive impact on customer expectations and can increase their intention to return. Salleh et al. (2023) further noted that the presence of cinemas, gaming zones, children's play areas, and other entertainment facilities offers additional experiences beyond traditional shopping activities. These facilities offer attractive entertainment for families and individuals, making the mall a multifunctional recreational destination. Complete and comfortable facilities can improve the shopping experience and encourage customer preferences to choose that mall. These insights lead to the following hypotheses:

- H3: Facilities has a positive influence on customer satisfaction
H7: Facilities has a positive influence on customer preferences
H10: Customer satisfaction mediates the relationship between facilities and customer preferences

Customer satisfaction is one of the key metrics used in the retail industry to monitor company performance, and various studies have shown that overall satisfaction is positively correlated with company profitability and repeat purchases (Bernhardt et al. 2000; Gómez et al. 2004; Kim et al. 2016; Kisang Ryu et al. 2012). As stated by Kotler & Kevin (2016), customer satisfaction reflects the extent to which a product or service's

performance meets customer expectations. Several studies also supported the fact that satisfaction directly influences repurchase intentions and customer buying behavior (Mittal & Kamakura, 2001). Accordingly, the following hypothesis is proposed:

- H4: Customer satisfaction has a positive influence on customer preferences.

As illustrated in Figure 1, the study includes: Exogenous variables: Design (D), Service Quality (SQ), and Facilities (F); Mediating variable: Customer Satisfaction (CS); Endogenous variable: Customer Preferences (CP). This integrated model reflects the theoretical assumptions of the S-O-R framework, enabling a deeper understanding of how environmental and service-related factors interact to shape customer satisfaction and preferences in a highly competitive and tourism-driven markets setting like Bali.

RESULTS

Demographic of Respondents

Table 1 outlined the background characteristics of the 218 individuals who took part in this research. The gender distribution was fairly even, with slightly more male participants (53.7%) than female (46.3%). A majority of respondents were aged between 31 and 40 years (54.1%), suggesting that mid-aged adults represented a dominant shopping demographic in Bali. In terms of shopping habits, nearly half of the participants (45.4%) said they visited malls between three and five times a month, showing a strong frequency of engagement with mall environments in the region.

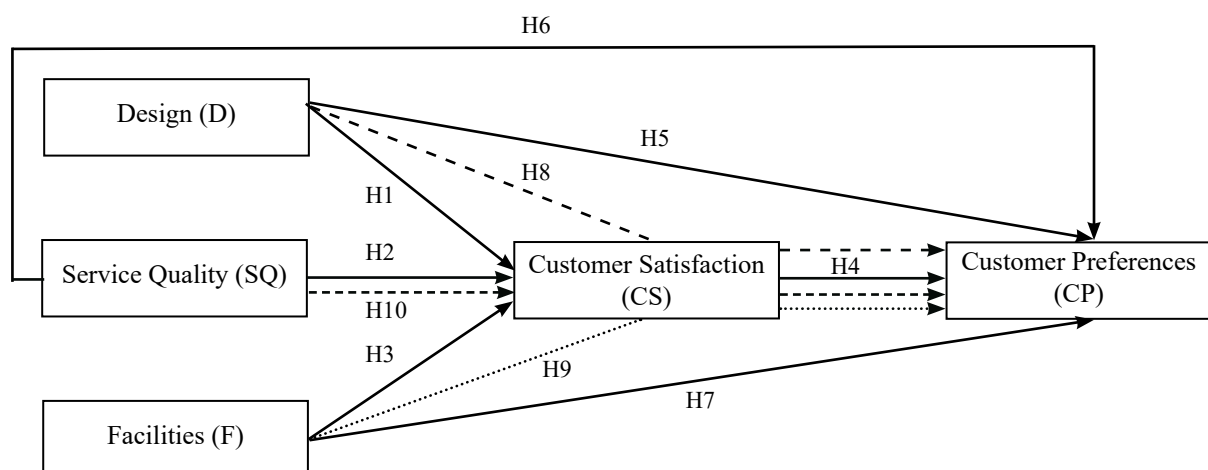


Figure 1. Research framework

Measurement Model

This research model consisted of 5 construct variables: Design (D), Service Quality (SQ), Facilities (F), Customer Satisfaction (CS), and Customer Preferences (CP). The measurement model evaluation would be conducted by testing the existing constructs through convergent validity, discriminant validity, and construct reliability tests. The validity test results showed that all

indicators in the variables had a factor loading above 0.7 with AVE value exceed 0.6 indicating all data were valid and none were deleted (Table 2).

Furthermore, discriminant validity test result shown in Table 3 concluded that all constructs had the square root of AVE values (Fornell-Larcker Criterion) greater than the values of other variables, thus meeting all the discriminant validity requirements in this model.

Table 1. Respondents demographic profile

Category	Classification	Total	Percentage (%)
Gender	Male	117	53.7
	Female	101	46.3
Age	10–20 Years	2	0.9
	21–30 Years	57	26.1
	31–40 Years	118	54.1
	41–50 Years	29	13.3
	51–60 Years	11	5.0
	>60 Years	1	0.5
Visiting the mall in 1 Month	1–2 times	82	37.6
	3–5 times	99	45.4
	6–10 times	33	15.2
	>11 times	4	1.8

Table 2. Convergent validity test result

Variable	Indicator	Information	Loading Factor	AVE
Design	D1	Layout	0.827	0.704
	D2	Lighting	0.833	
	D3	Architectural Visuals	0.799	
	D4	Interior Visuals	0.875	
	D5	Space Comfort	0.858	
Service Quality	SQ1	Speed of Service	0.892	0.815
	SQ2	Staff Friendliness	0.922	
	SQ3	Staff Professionalism	0.936	
	SQ4	Response to Complaints	0.949	
	SQ5	Availability of Information Services	0.809	
Facilities	F1	Parking Area	0.812	0.652
	F2	Entertainment and Recreation Facilities	0.787	
	F3	Public Facilities	0.835	
	F4	Tenant Variety	0.863	
	F5	Family Friendly Facilities	0.735	
Customer Satisfaction	CS1	Satisfaction with Design	0.849	0.709
	CS2	Satisfaction with Service Quality	0.770	
	CS3	Satisfaction with Facilities at the Shopping Mall	0.903	
Customer Preferences	CP1	Desire to Visit Again	0.873	0.724
	CP2	Willingness to Recommend to Others	0.825	
	CP3	Level of Loyalty to the Mall	0.855	

Table 4 showed that the variables Design (D), Service Quality (SQ), Facilities (F), Customer Satisfaction (CS), and Customer Preferences (CP) met the construct reliability measurement criteria because all Cronbach's Alpha (α) and rho a values were > 0.70 , indicating that all variables were reliable. Based on the overall evaluation results from the convergent validity, discriminant validity, and reliability assessments, it can be confirmed that all indicators used to measure the latent variables are both appropriate and dependable. With these conditions met, the analysis can confidently proceed to the next stage.

Model Fit

This research also conducted a model fit analysis which was used to determine the extent to which exogenous variables could explain the variance of endogenous variables. Based on Table 5, the R-square value for the Customer Satisfaction (CS) variable is 0.755, indicating that 75.5% of the variance in Customer Satisfaction (CS) can be explained by the Design (D), Service

Quality (SQ), and Facilities (F) variables. The R-square value for the Customer Preferences (CP) variable is 0.638, which shows that 63.8% of the variance in Customer Preferences (CP) can be explained by Design (D), Service Quality (SQ), Facilities (F), and Customer Satisfaction (CS). The Q-square predictive relevance (Q^2) calculation result shows a value of 0.9114, indicating that the model has very good fit. 91.14% of the relationships between variables in the model can be explained significantly. Based on a series of validity and reliability tests, this research model is proven valid and reliable for analyzing the relationships between variables in more depth. Further, hypothesis testing results between the variables will be discussed in more detail.

Structural Model

This research used a Partial Least Square (PLS) analysis approach to test the hypotheses proposed earlier. The results of the empirical model analysis using Partial Least Square (PLS) analysis can be seen in Figure 2.

Table 3. Discriminant validity test result

Variables	Design (D)	Service Quality (SQ)	Facilities (F)	Customer Satisfaction (CS)	Customer Preferences (CP)
Design (D)	0.839				
Service Quality (SQ)	0.475	0.903			
Facilities (F)	0.722	0.510	0.808		
Customer Satisfaction (CS)	0.732	0.686	0.779	0.842	
Customer Preferences (CP)	0.661	0.474	0.749	0.749	0.851

Table 4. Reliability test result

	Cronbach's alpha	Composite reliability (rho_a)
Design (D)	0.895	0.897
Service Quality (SQ)	0.943	0.944
Facilities (F)	0.866	0.873
Customer Satisfaction (CS)	0.794	0.811
Customer Preferences (CP)	0.811	0.823

Table 5. Model fit test result

Variable	R-Square	R-Square Adjusted
Customer Satisfaction (CS)	0.755	0.752
Customer Preferences (CP)	0.638	0.631
$Q^2 = 1 - [(1-R12) (1-R22)]$		
$Q^2 = 1 - [(1-0.638) (1-0.755)]$		
$Q^2 = 0.9114$		

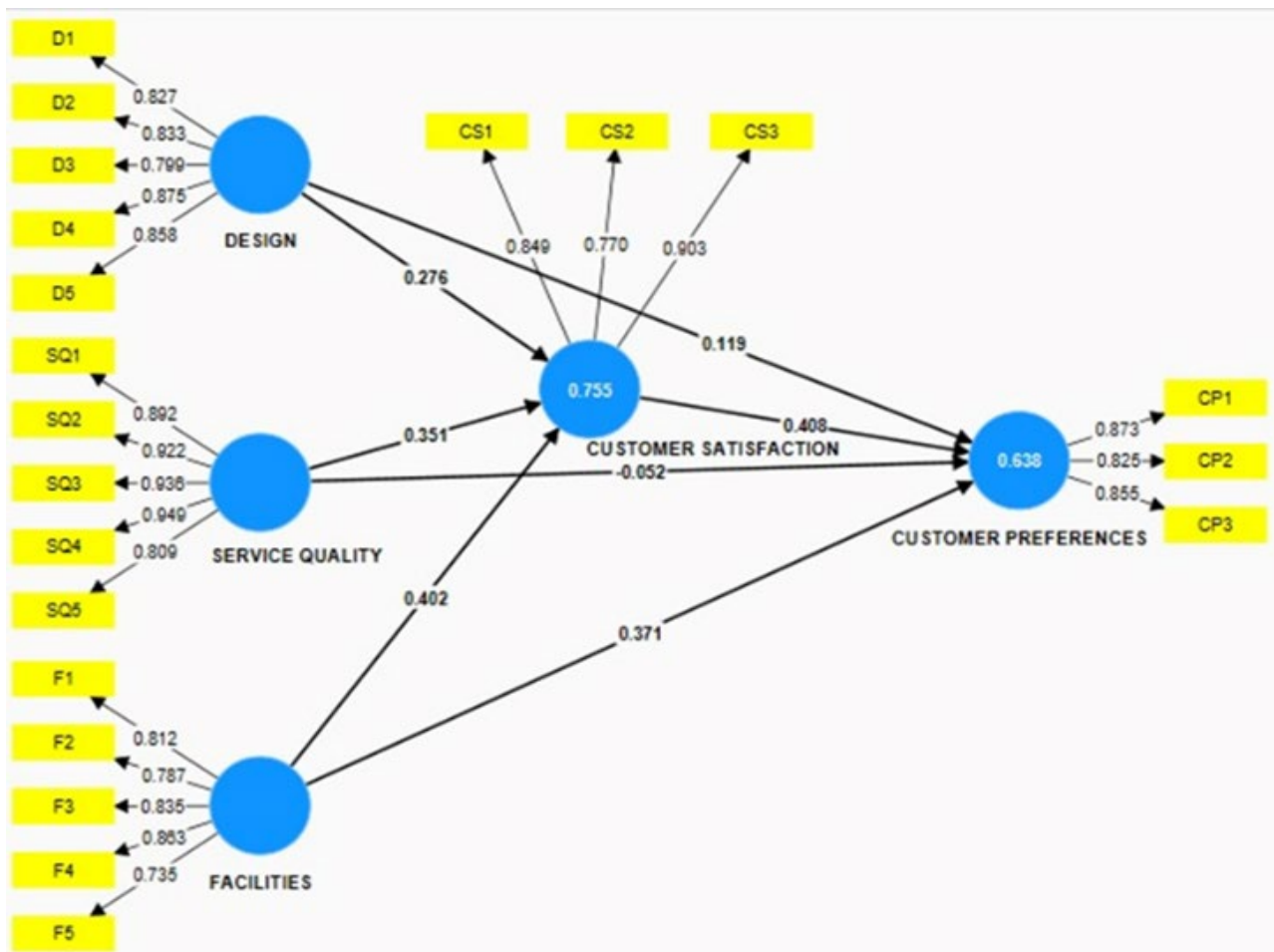


Figure 2. Empirical research model

Hypothesis testing was conducted to determine the direct and indirect effects of independent variables on the dependent variable. The test was conducted using the criteria that the P-value was less than 0.05 and that the coefficient value was positive. If both of these criteria were met, it indicated a positive and significant relationship between the independent and dependent variables. Through the hypothesis test revealed in Table 6, it can be seen that there are eight accepted hypotheses, while two hypotheses are rejected.

In summary, the results of hypothesis testing confirmed several important relationships within the proposed model. Design, service quality, and facilities each played a significant role in shaping customer satisfaction, while both facilities and satisfaction itself were key drivers of customer preferences. Although design and service quality did not directly influence preferences, their impact was clearly evident when satisfaction was taken into account as a mediating factor. These findings reinforce the value of customer satisfaction as a bridge between environmental attributes and behavioral responses. With these insights established,

the following section explores the broader meaning of these results and how they contribute to both theoretical understanding and practical application.

To further interpret these findings, the discussion is organized around the study's key hypotheses, starting with the relationships between the three stimulus variables design, service quality, and facilities and customer satisfaction. Each relationship is then assessed in terms of its direct and mediated impact on customer preferences. This structure enables a clearer understanding of which shopping mall attributes most significantly shape satisfaction and how that satisfaction, in turn, informs consumer choices in Bali's dynamic retail landscape.

First, the relationship between design (D) on customer satisfaction (CS) has been shown to be positive and significant, through correlation coefficient of 0.276 with p-value of 0.000. The results show that design, which refers to layout, lighting, architectural visuals, interior visuals, and the comfort of space in a shopping mall, has a positive effect on customer satisfaction.

This finding is in line with the research by Faria et al. (2022) which stated that the design of a mall or store is crucial and can affect customer satisfaction. Similarly, Sharma et al. (2022) mentioned that the store layout and facilities should be designed in such a way that they are easily accessible and create a shopping experience that is comfortable and enjoyable. Yuan et al. (2021) emphasized that architectural design plays a significant role in shaping the customer experience, especially in the context of space layout and business planning. This shows that effective design can create a comfortable and enjoyable shopping experience for customers, ultimately leading to their satisfaction with the shopping mall.

Second, service quality (SQ) positive and significantly impact customer satisfaction (CS), through correlation coefficient of 0.351 with p-value of 0.000. This finding demonstrated that the better the service quality provided to customers, the higher their satisfaction will be. Service quality in a shopping mall includes interactions between staff and customers, which is one of the key factors in shaping customer satisfaction. This aligns with the research by Kushwaha et al. (2017), which stated that customers always compare the services offered at a shopping mall and then decide whether to buy products from that specific shopping mall. Service quality not only covers aspects such as friendliness

and responsiveness but also includes the availability of information and customer satisfaction with the services provided at the mall. Good service can significantly contribute to creating customer satisfaction and increasing the likelihood of their return visits.

Third, facilities (F) have been proven to influence customer satisfaction (CS) positively significant, through correlation coefficient of 0.402 with p-value of 0.000. Results revealed that the better the facilities available in a shopping mall, the higher the customer satisfaction will be. Facilities include various supporting services and conveniences provided by the shopping mall, such as accessibility, parking spaces, recreational areas, and the comfort of public facilities such as restrooms and lounges. Research by Al-Sulaiti (2022) and Buil López-Menchero et al. (2021) highlighted the importance of modern facilities such as large parking areas, easy accessibility, and entertainment services that can attract more visitors. This aligns with the research by Dubihlela & Dubihlela (2014) which stated that customers mainly focus on the availability of entertainment and recreational facilities in a shopping mall. Adequate and comfortable facilities play an essential role in enriching the experience and increasing customer satisfaction while shopping at a mall.

Table 6. Hypotheses test result

Hypotheses Path	Path Coefficient	T statistics	P values	Info
Design (D)→ Customer Satisfaction (CS)	0.276	4.905	0.000*	Accepted
Design (D) → Customer Preferences (CP)	0.119	1.789	0.074	Rejected
Service Quality (SQ) → Customer Satisfaction (CS)	0.351	7.646	0.000*	Accepted
Service Quality (SQ) → Customer Preferences (CP)	-0.052	0.669	0.504	Rejected
Facilities (F) → Customer Satisfaction (CS)	0.402	6.261	0.000*	Accepted
Facilities (F) → Customer Preferences (CP)	0.371	3.837	0.000*	Accepted
Customer Satisfaction (CS) → Customer Preferences (CP)	0.408	3.455	0.001*	Accepted
Design (D) → Customer Satisfaction (CS) → Customer Preferences (CP)	0.112	2.576	0.010*	Accepted
SQ → Customer Satisfaction (CS) → Customer Preferences (CP)	0.143	3.037	0.003*	Accepted
Facilities (F) → Customer Satisfaction (CS) → Customer Preferences (CP)	0.164	3.371	0.001*	Accepted

note: *p-value < 0.05

Fourth, customer satisfaction (CS) significantly influences customer preferences (CP), through correlation coefficient of 0.408 with p-value of 0.001. This suggests that the higher the level of customer satisfaction in a shopping mall, the higher the customer preference for that mall. Existing research shows a strong relationship between satisfaction and post-purchase behavior such as repurchase and the intention to visit again (Bolton & Drew, 1991; Oh, 2000). The desire to revisit a place can arise when someone has a satisfying experience there (Kozak, 2001). Customer satisfaction is a primary source of revenue and a key to winning competition (Giese & Cote, 2002). When customers are satisfied, they are reluctant to switch to other places. Satisfied customers become loyal and provide continuous income for the shopping mall. With loyalty, repeat purchases, increased product purchases, and broader product awareness can occur (Hayes, 2008).

Fifth, facilities (F) are also proven to affecting customer preference (CP) positively and significantly, through correlation coefficient of 0.371 with p-value of 0.000. This means that the better the facilities provided, the higher the customer preference. Adequate facilities that meet customer needs can directly influence their preference in choosing a shopping mall. This aligns with research by Al-Sulaiti (2022) which mentioned that modern facilities, such as social interaction, various additional services, and shopping comfort, will create the intention to revisit. Likewise, Tongue et al. (2010) mentioned that the basic facilities of a shopping mall have a crucial role in customer decision-making process. Facilities are an important element that directly affects customer preferences in Bali when choosing a shopping mall.

However, two hypotheses are rejected in this test. First, the influence of design (D) on customer preferences (CP) shows a low correlation coefficient of 0.119 and a p-value of 0.074. This is different from the study by Chatzoglou et al. (2022) which stated that design and ambience have a positive effect on customer patronage. Research by Vilnai-Yavetz et al. (2021) also stated that the design of a store affects loyalty intentions toward the shopping mall as a whole. This research result aligns with the research from Adeola et al. (2023) which stated that layout, design, and decoration do not affect patronage and customer loyalty to the shopping mall. These findings differ from several previous studies, revealing that design does not have a direct effect on customer preferences in Bali.

Similarly, the influence of service quality (SQ) on customer preferences (CP) shows a negative correlation coefficient of -0.052 with a p-value of 0.504. This is consistent with the study by Adeola et al. (2023) which demonstrated that service quality aspects such as friendliness, assistance, and knowledge do not affect patronage and customer loyalty to the shopping mall. These findings differ from those of Chatzoglou et al. (2022) who stated that service quality such as friendliness, politeness, providing relevant and valuable information, and making customers feel comfortable plays a role in influencing customer preferences. Research by Kushwaha et al. (2017) also stated that customers appreciate and will visit shopping malls that have good and cooperative staff. The findings in this research reveal that service quality does not have a direct effect on customer preferences in Bali.

Interesting finding in this research shows that customer satisfaction acts as a crucial mediators between variables. The results of hypothesis tests 8, 9, and 10 indicate that customer satisfaction plays a positive and significant mediating role between the variables of design, service quality, and facilities with customer preference. When customer satisfaction is achieved through factors such as design, service quality, and the facilities available in a shopping mall, customer preference for that mall tends to increase. This is in line with the research by Chatzoglou et al. (2022) which stated that satisfaction affects repurchase intentions both directly and indirectly. According to Widiyani (2018) customer satisfaction was influenced by the physical appearance of the mall, its atmosphere, and its social dimensions, including services and social aspects. Meanwhile, Wakefield & Baker (1998) stated that the mall's atmosphere affects the emotions of customer and provides satisfaction in the shopping experience, which subsequently influences their choice of mall. Pei et al. (2020) stated that customer experiences with good staff service, a comfortable shopping environment, and clear shopping procedures have a positive impact on customer satisfaction, which will then affect customer preference.

Managerial Implications

The results of this study highlight that facilities are the most influential factor in shaping customer preferences, both directly and through the mediation of satisfaction. Mall operators should therefore prioritize the development of comprehensive, customer-friendly

amenities, such as spacious parking, clean restrooms, accessible recreational zones, and family-oriented services, to enhance overall comfort and engagement. While design and service quality do not directly influence preferences, both significantly impact customer satisfaction. Thus, thoughtful architectural layout, ambient lighting, and well-organized interiors should not be overlooked, as these elements enhance the emotional quality of the shopping experience and encourage longer visits.

Moreover, excellent service through responsive, friendly, and well-trained staff, remains essential in strengthening satisfaction, even if its direct effect on preference is limited. Managers should focus on internal service improvements and training programs that foster consistent customer interaction, particularly in Bali's tourism-driven markets. Ultimately, this study underscores that satisfaction is not merely an end-goal but a strategic lever for increasing loyalty and preference. Malls that invest in aligning physical comfort, emotional engagement, and operational quality are more likely to remain competitive in the evolving retail landscape. Overall, the findings of this study provide mall operators and stakeholders with practical guidance on where to focus their efforts in improving customer experience and loyalty. By recognizing the strategic value of satisfaction as a mediator, and aligning physical spaces and services with evolving visitor expectations, malls, especially in tourism-driven markets like Bali, can position themselves not only as retail centers, but as holistic lifestyle destinations.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study examined the influence of design, service quality, and facilities on customer satisfaction and their impact on customer preferences in the context of shopping malls in Bali. Using the Stimulus-Organism-Response (S-O-R) framework and SEM-PLS analysis, the findings demonstrate that each of the three mall attributes plays a distinct role in shaping consumer outcomes. The results show that design and service quality have a significant direct effect on customer satisfaction, but do not directly influence customer

preferences. Instead, their effects on preference are mediated through satisfaction. Meanwhile, facilities exhibit a dual role, showing a significant direct effect on both customer satisfaction and customer preferences. These findings emphasize that customer satisfaction serves as a key mediating variable, transforming perceptions of mall design, services, and amenities into actual preference behaviors, such as likelihood to revisit or recommend. Thus, the research confirmed that enhancing the physical and service environment of shopping malls is essential, but achieving customer preference depends largely on the level of satisfaction generated through these experiences. This insight is especially relevant for malls in tourism-driven markets like Bali, where both local and tourist consumer expectations converge.

Recommendations

Future research is encouraged to broaden the current model by incorporating additional variables such as brand image, tenant mix, pricing strategies, promotional effectiveness, and technological integration, which may further explain customer satisfaction and preferences. Studies should also explore evolving consumer behavior in the post-pandemic era, particularly the role of e-commerce and personalized experiences. Comparative research across regions or countries can help assess the generalizability of the findings, while mixed-methods approaches using behavioral data such as foot traffic and dwell time may offer deeper insights. Finally, longitudinal studies are recommended to capture dynamic shifts in satisfaction and preferences over time.

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