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Evaluating Tourism SME Development Programs Through Customer Satisfaction as Behavioral Capital: A Time-Lagged Study in Malang City

Abstract

Tourism performance is commonly assessed using indicators such as tourist arrivals and tourist spending, which capture short-term economic effects but overlook the behavioral mechanisms that sustain local tourism economies. This study aims to evaluate the effectiveness of regional tourism SME development programs by positioning customer satisfaction as behavioral capital that links policy interventions with market sustainability and regional economic outcomes. A time-lagged sequential explanatory mixed-methods design is employed. Phase 1 evaluates branding-oriented interventions (digital marketing, service quality, and promotion) by examining their effects on customer satisfaction and brand image. Phase 2, conducted after temporal gap, evaluates market sustainability by assessing customer satisfaction and its effects on customer loyalty, repeat purchase behavior, and demand for local souvenir products. Quantitative data were collected longitudinally from 70 customers of Sokressh, a tourism-based SME in Malang City. The qualitative phase uses open-ended questionnaires to explain how customer satisfaction translates into word-of-mouth promotion and local economic circulation. The findings indicate that customer satisfaction significantly mediates both branding and market sustainability outcomes and functions as behavioral capital that drives repeat demand. Qualitative evidence shows that increases in customer satisfaction are associated with higher repeat purchases and stronger tourist recommendations, contributing to stable demand for local products. The study proposes Tourism-Based SME Marketing Sustainability Model and demonstrates that customer satisfaction can serve as a behavioral-based indicator of program effectiveness linking SME support policies with regional economic development. Findings show satisfaction as behavioral capital strengthens local demand, stabilizes SME income, and enhances resilience in tourism-based cities like Malang.

Article Info

Keywords:

Customer Satisfaction;
Behavioral Capital;
Tourism SMEs;
Time-Lagged Study;
Malang City

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1. Introduction

Tourism has long been recognized as one of the most dynamic sectors contributing to regional economic development. According to the World Travel et al., (2025), the sector generates substantial economic value through its contributions to global GDP, employment, and visitor spending. In practice, governments and policymakers predominantly rely on quantitative indicators such as tourist arrivals, length of stay, and tourist expenditure to assess tourism performance, reflecting a macroeconomic measurement approach widely adopted in policy and research contexts (Alcalá-Ordóñez et al., 2024; Surgawati et al., 2025). These indicators provide clear evidence of the direct and measurable economic contributions of tourism, particularly in terms of revenue generation and short-term economic growth. However, an increasing body of recent literature argues that an exclusive reliance on such aggregate metrics may result in a partial understanding of tourism's role in development, as it tends to overlook broader dimensions such as sustainability, community well-being, and localized economic

impacts (Bhatt et al., 2024; Sun et al., 2025). Therefore, a more comprehensive analytical framework is required to capture how tourism contributes to sustainable and inclusive economic development beyond macro-level indicators.

In the context of urban development, this limitation becomes more critical, as city-level economic sustainability depends not only on aggregate tourism performance but also on how local economic actors particularly SMEs capture and retain value within the urban system. Without understanding the behavioral mechanisms that sustain demand, tourism growth may fail to generate long-term economic stability at the city level.

This indicates that SMEs are not merely business entities but key components of the urban economic structure, functioning as drivers of local circulation and value retention. Therefore, evaluating SME performance through a behavioral lens becomes essential for understanding how tourism contributes to sustainable urban development in Malang City. Strengthening MSMEs in community-based tourism destinations has been shown to play a significant role in enhancing local economic resilience through increased financial literacy, production innovation, and utilization of environmentally-based resources (Iswari et al., 2023)

In many tourism destinations, including emerging urban tourism hubs, increases in tourist arrivals and spending do not necessarily translate into sustained economic benefits for local communities, a phenomenon increasingly discussed in recent tourism studies. As noted by Blake et al., (2008) and Vanhove, (2018), tourism growth can generate uneven economic distribution, particularly when local linkages are weak. This discrepancy is particularly evident in the performance of small and medium enterprises (SMEs), which play a critical role in the tourism value chain (Rasoolimanesh et al., 2021; Scheyvens et al., 2018).

Tourism-based SMEs in the souvenir sector are highly vulnerable to seasonal fluctuations and external shocks due to their heavy reliance on tourist demand (UN Tourism., 2023). Consequently, as argued by Font et al., (2017), sustainable tourism development must shift from merely chasing aggregate growth figures toward strengthening demand stability and local participation. Focusing on value retention at the destination level is key to ensuring the survival of local businesses and fostering a more inclusive sectoral recovery (World Tourism Organization., 2022). While periods of high tourist inflow may temporarily boost sales, these gains are not always sustained over time, as emphasized in discussions on local economic resilience. Consequently, short-term increases in tourism activity do not automatically translate into stable income streams for small businesses (Rasoolimanesh et al., 2021).

One key limitation of traditional tourism performance frameworks is their limited focus on consumer behavior (Prebensen et al., 2017; Sharma et al., 2020). Tourist spending reflects cognitive and affective processes shaped by experiences Hosany et al., (2010), where interactions with destinations influence perceptions and evaluations (Rather et al., 2019). These perceptions form satisfaction, a dynamic construct influencing behavioral intentions such as revisit and word-of-mouth (Pandey et al., 2021; Rather, 2020). Satisfaction also mediates experience quality and loyalty (Kim et al., 2018; Pandey et al., 2021). Making it essential for understanding long-term tourism demand (Prebensen et al., 2017; Sharma et al., 2020).

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Within marketing literature, customer satisfaction is widely conceptualized as the result of service and product quality as well as marketing performance (Ali et al., 2018; Chiu et al., 2016). Satisfied customers tend to demonstrate loyalty, repeat purchases, and positive brand attitudes (Han et al., 2017; Rather et al., 2022). In tourism contexts, satisfaction is also closely associated with destination image, revisit intention, and word-of-mouth communication (Prayag et al., 2017; Stylos et al., 2021). However, despite its importance, many empirical studies still position satisfaction as an endpoint variable rather than as a dynamic mechanism influencing broader economic outcomes (Hassan et al., 2021; Rather et al., 2022).

This study adopts a microfoundations perspective, which argues that macro-level outcomes emerge from aggregated individual behaviors. In tourism-based SMEs, this implies that regional economic performance is shaped not only by structural factors but also by consumer

responses (Felin et al., 2020; Kozlenkova et al., 2014). Customer satisfaction can thus be viewed as a micro-level mechanism influencing demand patterns and market stability (Hult et al., 2017). Building on this, behavioral capital reflects accumulated positive consumer behaviors—such as repeat purchase and advocacy—that sustain long-term demand and act as an intangible strategic asset (Hult et al., 2017; Kozlenkova et al., 2014).

Malang records approximately 3.4 million tourist visits (2025) (figure 1) by TIMES Indonesia, (2025), creating a strong market for souvenir-based SMEs. Souvenir consumption—especially food products such as tempe chips and apple-based snacks—has become an integral part of the tourism experience, positioning Malang as a shopping-based tourism hub (Suryani et al., 2020). Tourism-based SMEs play a crucial economic role, contributing more than 60% of local economic activity (Radar Malang., 2023), with around 7,920 SMEs operating in the city (Universitas Muhammadiyah Malang., 2022). Within this ecosystem, customer satisfaction functions as behavioral capital, driving repeat purchases and word-of-mouth, which sustain demand for local products and strengthen regional economic circulation.

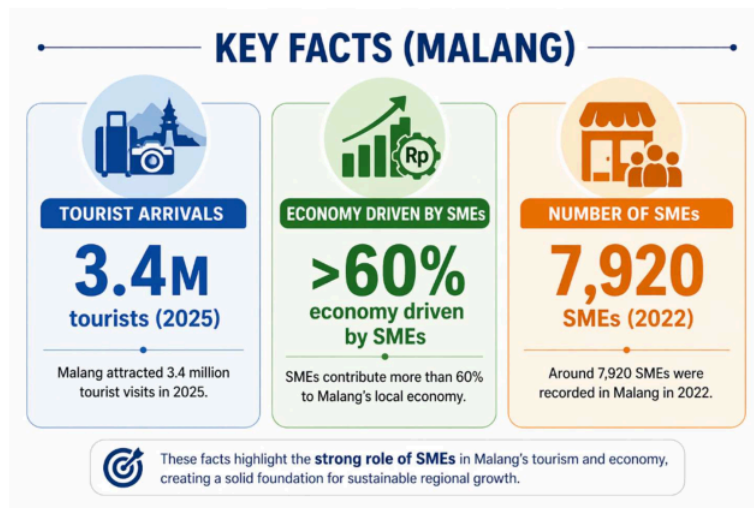


Figure 1. Malang Tourism and SME Ecosystem

In this context, customer satisfaction becomes a critical determinant of how tourism demand is transformed into sustainable economic outcomes. Souvenir products in Malang are not merely transactional goods; they are experiential artifacts that reflect the identity of the destination. When tourists are satisfied with their consumption experiences whether through product quality, service interaction, or brand perception they are more likely to engage in repeat purchases and recommend the products to other visitors. This behavior is particularly relevant in Malang, where tourist mobility across destinations in the Malang Raya area (Malang City, Batu, and Malang Regency) creates opportunities for repeated consumption and cross-destination word-of-mouth diffusion. Furthermore, the evaluation of government-led SME development programs often lacks a behavioral dimension. Programs such as digital marketing training, service quality improvement initiatives, and promotional support are typically assessed based on output indicators, such as the number of participants or the extent of program implementation. While these metrics provide useful information about program reach, they do not necessarily capture the effectiveness of such interventions in shaping consumer behavior and market outcomes. As a result, there is a disconnect between policy implementation and actual economic impact.

To address these gaps, this study proposes a behavioral-based evaluation framework for tourism SME development programs. Specifically, it positions customer satisfaction as a form of behavioral capital that serves as a bridge between policy interventions and economic

outcomes. By examining how marketing interventions influence customer satisfaction, and how satisfaction in turn affects brand image, customer loyalty, and demand, the study provides a more comprehensive understanding of program effectiveness.

By integrating a behavioral perspective into the evaluation of SME development programs, this study also contributes to urban policy analysis by offering an alternative framework for assessing program effectiveness beyond conventional output indicators. This approach is particularly relevant for city governments aiming to strengthen tourism-based economic resilience through SME empowerment.

2. Methods

This study employs a time-lagged sequential explanatory mixed-method design to evaluate the effectiveness of tourism SME development interventions across two phases (figure 2)

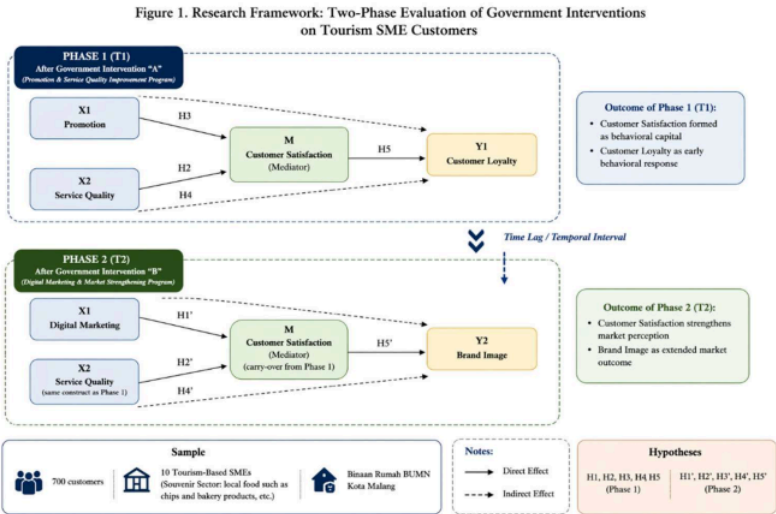


Figure 2. Time-Lagged Two-Phase Model for Evaluating Government Interventions in Tourism-Based SMEs

Phase 1 (T1) is conducted after Government Intervention A, which focuses on promotion and service quality improvement programs implemented through SME development initiatives. This phase examines the effects of promotion (X1) and service quality (X2) on customer satisfaction (mediator) and subsequently on customer loyalty (Y), capturing early behavioral responses.

Phase 2 (T2) is conducted after a temporal interval following Government Intervention B, which emphasizes digital marketing adoption and market strengthening. This phase builds on Phase 1 outcomes by testing digital marketing (X1) and service quality (X2) on customer satisfaction (mediator) and brand image (Y). Customer satisfaction is treated as a carry-over construct, representing accumulated consumer experience across phases.

This design is particularly relevant in the context of evaluating city-level development programs, as it allows the study to capture not only immediate behavioral responses but also the sustainability of policy impacts over time, which is critical for urban economic planning.

Data were collected from 700 customers across 10 tourism-based SMEs in the souvenir sector (e.g., local food products such as chips and bakery souvenirs) under the Rumah BUMN Malang City development program. A purposive sampling approach was applied, targeting customers

who had direct consumption experience with the SME products. Data were collected using structured questionnaires measured on a Likert scale (1–5). The same or comparable respondent groups were observed across both phases to capture temporal variation in consumer behavior. The selected SMEs represent a segment of the urban tourism economy, allowing the findings to reflect broader behavioral patterns within the city-level economic ecosystem.

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Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM), including measurement model evaluation (validity and reliability), structural model testing, and mediation analysis. A complementary qualitative phase using open-ended responses was employed to explain how customer satisfaction translates into loyalty, brand perception, word-of-mouth, and demand formation within the local tourism economy. Within this framework, customer satisfaction is positioned as behavioral capital, linking policy interventions with evolving consumer behavior across phases.

3. Results and Discussion

The results of Phase 1 demonstrate that promotion and service quality, as part of Intervention A, generate strong initial behavioral responses among customers of tourism-based SMEs. Descriptive analysis shows that all variables are perceived at a high level, with promotion (Mean = 4.07) and service quality (Mean = 4.02) reflecting positive evaluations of marketing and service interventions. Customer satisfaction records a higher mean score (4.17), indicating that customers experience a high level of fulfillment, while customer loyalty also shows a strong level (Mean = 4.01), suggesting the presence of repeat purchase intention and recommendation behavior.

At the indicator level, customer engagement (4.17) emerges as the strongest dimension within promotion, while assurance (4.32) dominates service quality, indicating that trust and perceived reliability are key drivers of satisfaction. Notably, word-of-mouth behavior (4.35) records the highest score across all indicators, suggesting that satisfied customers actively recommend the product, signaling the early formation of behavioral capital.

Table 1. Descriptive Statistics

Variable	Mean	Category
Promotion	4.07	High
Service Quality	4.02	High
Customer Satisfaction	4.17	High
Customer Loyalty	4.01	High

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The measurement model evaluation confirms that all constructs meet the required criteria for validity and reliability. All outer loadings exceed 0.70, indicating strong indicator reliability. The Average Variance Extracted (AVE) values range from 0.740 to 0.879, exceeding the minimum threshold of 0.50, thereby confirming convergent validity. Composite reliability values range from 0.917 to 0.941, while Cronbach's alpha coefficients exceed 0.90 for all constructs, indicating high internal consistency.

Table 2. Measurement Model Evaluation

Construct	AVE	Composite Reliability	Cronbach's Alpha
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Promotion	0.782	0.917	0.904
Service Quality	0.740	0.931	0.921
Customer Satisfaction	0.879	0.941	0.930
Customer Loyalty	0.795	0.928	0.914

The structural model results indicate strong explanatory power. Promotion and service quality explain 71.5% of the variance in customer satisfaction ($R^2 = 0.715$), while promotion, service quality, and satisfaction jointly explain 70.6% of customer loyalty ($R^2 = 0.706$). The model also demonstrates strong predictive relevance with a Q^2 value of 0.755, indicating a high level of goodness of fit.

The measurement model is further illustrated in Figure 3, showing the relationship between latent constructs and their indicators along with outer loadings.

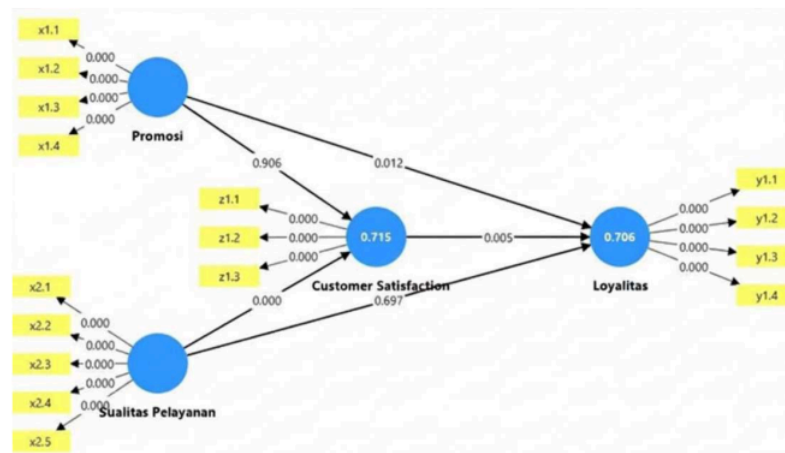


Figure 3. Outer Model

Figure 3. presents the outer model, confirming that all indicators load significantly on their respective constructs with strong loading values, indicating high indicator reliability. The absence of weak loadings suggests that no indicators need to be removed from the model. Furthermore, all indicators are statistically significant ($p < 0.05$), reinforcing their contribution to construct measurement. These findings are consistent with the AVE and composite reliability values reported in Table 2, confirming that the model satisfies convergent validity and internal consistency requirements. Therefore, the measurement model is considered robust and suitable for structural model evaluation.

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Table 3. Structural Model Results

Path	β	T-statistics	p-value	Result
Promotion $\rightarrow$ Loyalty	0.546	2.523	0.012	Supported

Promotion → Customer Satisfaction	-0.015	2.118	0.006	Supported
Service Quality → Loyalty	-0.100	2.390	0.007	⁶ Supported
Service Quality → Customer Satisfaction	0.858	7.073	0.000	Supported
Customer Satisfaction → Loyalty	0.459	2.798	0.005	Supported
Promotion → Customer Satisfaction → Loyalty	-0.007	2.110	0.012	⁶ Supported
Service Quality → Customer Satisfaction → Loyalty	0.398	2.747	0.006	Supported

⁴

The structural model results indicate that promotion and service quality play significant roles in shaping early-stage customer behavioral responses. Promotion has a significant positive effect on customer loyalty ($\beta = 0.546$, $p < 0.05$), suggesting that promotional activities directly influence customers' willingness to repurchase and recommend the product.

²⁸

Service quality also shows a significant effect on customer loyalty ($\beta = -0.100$, $p < 0.05$). Although the direction indicates a weaker and more complex relationship, this finding suggests that service quality alone does not directly translate into loyalty without further customer evaluation processes.

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Furthermore, service quality demonstrates a strong and highly significant effect on customer satisfaction ($\beta = 0.858$, $p < 0.001$), indicating that improvements in service delivery substantially enhance customer evaluations. Customer satisfaction, in turn, has a significant positive effect on customer loyalty ($\beta = 0.459$, $p < 0.05$), confirming that satisfied customers are more likely to exhibit repeat purchase behavior and recommendation tendencies.

These results confirm that, in Phase 1, customer satisfaction functions as a direct behavioral response variable rather than a tested mediating construct. The relationships observed indicate that both promotion and service quality contribute to shaping satisfaction and loyalty, but the mediating mechanism is not formally examined in this phase.

The findings of phase 1 indicate that Intervention A successfully generates strong early behavioral responses, particularly through high levels of customer satisfaction and loyalty. The dominance of word-of-mouth behavior suggests that customers actively participate in informal promotion, reinforcing the role of satisfaction as a behavioral mechanism. In this phase, customer satisfaction can be interpreted as the initial formation of behavioral capital, reflecting accumulated positive experiences that influence repeat purchase tendencies and recommendation behavior. This behavioral capital serves as the foundation for extended market outcomes, which are further examined in Phase 2.

The results of Phase 2 reflect the effectiveness of Intervention B, which emphasizes digital marketing and market strengthening in shaping customer satisfaction and brand image. Descriptive analysis indicates that all variables are perceived at a high level, confirming positive consumer responses following the second intervention stage. Digital marketing records a mean value of 3.92, service quality 3.94, customer satisfaction 3.81, and brand image 3.89, indicating that customers perceive both marketing and service improvements as effective in strengthening brand perception.

At the indicator level, digital marketing is strongest in informativeness (4.03) and interactivity (4.00), suggesting that customers value clear and responsive communication. Service quality is dominated by assurance (4.06), reinforcing the importance of trust in shaping customer

evaluations. Meanwhile, brand image is strongest in reputation (3.96), indicating that positive customer experiences translate into favorable brand perceptions.

The structural relationships among variables are illustrated in Figure 4, highlighting the path coefficients and significance levels.

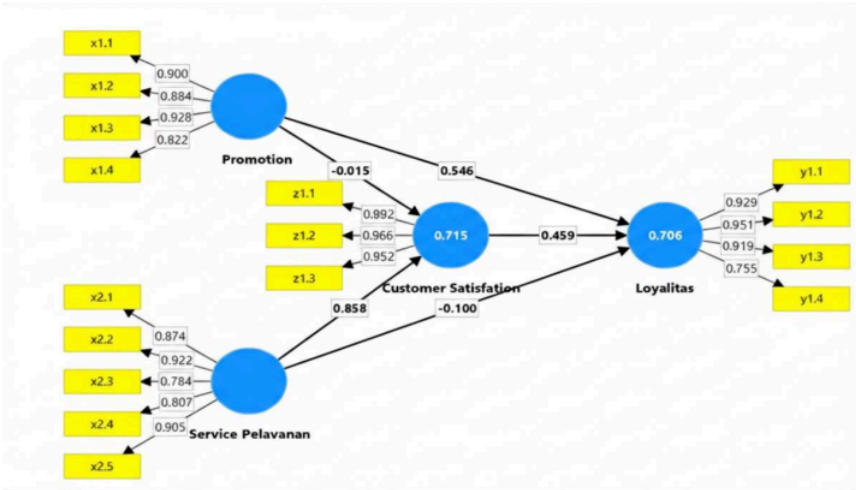


Figure 4. Inner Model

Figure X illustrates the inner model, confirming that the model has strong predictive capability, as reflected by R^2 values of 0.715 (customer satisfaction) and 0.706 (customer loyalty). Promotion significantly influences customer loyalty ($\beta = 0.546$), while its effect on customer satisfaction is minimal ($\beta = -0.015$). In contrast, service quality shows a substantial impact on customer satisfaction ($\beta = 0.858$), but a weak direct effect on loyalty ($\beta = -0.100$). Customer satisfaction significantly affects customer loyalty ($\beta = 0.459$), supporting its role as a key mediating construct. These findings indicate that customer loyalty is primarily driven by satisfaction, particularly as a result of service quality, highlighting the importance of experiential factors in shaping consumer behavior.

Table 4. Phase 2 Descriptive Statistics

Variable	Mean	Category
Digital Marketing	3.92	High
Service Quality	3.94	High
Customer Satisfaction	3.81	High
Brand Image	3.89	High

The measurement model confirms strong validity and reliability across all constructs. Outer loadings range from 0.822 to 0.920, exceeding the threshold of 0.70, indicating strong indicator reliability. Average Variance Extracted (AVE) values range from 0.733 to 0.783, confirming convergent validity. Composite reliability values exceed 0.90, and Cronbach's alpha values are above 0.85, indicating high internal consistency.

Table 5. Measurement Model Evaluation (Phase 2)

Construct	AVE	Composite Reliability	Cronbach's Alpha
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Digital Marketing	0.748	0.922	0.887
Service Quality	0.733	0.932	0.908
Customer Satisfaction	0.779	0.913	0.858
Brand Image	0.783	0.915	0.861

The structural model demonstrates very strong explanatory power. The R^2 value for customer satisfaction is 0.839, indicating that digital marketing and service quality explain 83.9% of satisfaction. Meanwhile, brand image records an R^2 of 0.877, showing that digital marketing, service quality, and satisfaction jointly explain 87.7% of brand perception. These values indicate a highly predictive model. The predictive relevance is also very high, with a Q^2 value of 0.980, confirming excellent model fit and strong predictive capability.

Table 6. Structural Model Results (Phase 2)

Relationship	Coefficient (β)	p-value	Result
Digital Marketing → Brand Image	0.263	0.009	Supported
Service Quality → Brand Image	0.397	0.001	Supported
Customer Satisfaction → Brand Image	0.311	0.013	Supported
Digital Marketing → Customer Satisfaction	0.432	0.000	Supported
Service Quality → Customer Satisfaction	0.509	0.000	Supported
Digital Marketing → Satisfaction → Brand Image	0.159	0.027	Supported
Service Quality → Satisfaction → Brand Image	0.135	0.043	Supported

The results confirm that both digital marketing and service quality significantly influence customer satisfaction and brand image, both directly and indirectly. Customer satisfaction plays a partial mediating role, strengthening the effect of marketing variables on brand perception. Importantly, the stronger coefficients of service quality → satisfaction (0.509) and satisfaction → brand image (0.311) indicate that customer evaluation mechanisms are central in shaping brand outcomes. This suggests that digital marketing alone is not sufficient; its effectiveness depends on how it enhances customer satisfaction.

The findings of Phase 2 indicate that Intervention B successfully strengthens brand-level outcomes, particularly through the role of customer satisfaction as a mediating mechanism. Compared to Phase 1, where satisfaction primarily drives loyalty, Phase 2 shows that satisfaction evolves into a mechanism that shapes brand perception and market positioning.

From a broader perspective, these results confirm that customer satisfaction functions as a behavioral mechanism that accumulates across phases, linking initial behavioral responses (loyalty formation) with extended market outcomes (brand image strengthening). This reinforces its role as a foundation for sustainable demand, which is further interpreted in the discussion section as behavioral capital.

Discussion

The findings of this study provide strong evidence that customer satisfaction plays a central role in linking marketing interventions with evolving consumer behavior and broader market outcomes in tourism-based SMEs. Across the two phases, the results demonstrate a clear behavioral progression, where marketing efforts initially shape customer responses and subsequently influence higher-order outcomes such as brand perception and market sustainability.

¹⁰ Phase 1, the results indicate that promotion and service quality significantly influence customer satisfaction and customer loyalty. The strong effect of service quality on customer satisfaction ($\beta = 0.858$) suggests that the consumption experience is a critical determinant of how customers evaluate SME products. Meanwhile, the significant relationship between customer satisfaction and loyalty confirms that satisfied customers are more likely to engage in repeat purchase behavior and recommendation. Importantly, the high level of word-of-mouth behavior observed in this phase indicates that customers actively participate in informal promotion, extending the impact of marketing beyond firm-controlled channels.

These findings align with established marketing literature, which emphasizes that customer satisfaction serves as a key predictor of loyalty and behavioral intention. However, this study extends the discussion by demonstrating that satisfaction does not merely function as an outcome variable, but as an active behavioral mechanism that mediates the transformation of marketing inputs into observable consumer behavior. In this sense, Phase 1 captures the initial formation of behavioral capital, reflected in repeated consumption tendencies, recommendation behavior, and emotional attachment to the product.

Phase 2 further strengthens this argument by showing that customer satisfaction continues to ¹ play a significant role in shaping brand image. The results reveal that both digital marketing and service quality significantly influence customer satisfaction, which in turn significantly affects brand image. In addition, the presence of significant indirect effects confirms that customer satisfaction functions as a mediating mechanism in transforming marketing efforts into brand perception.

Compared to Phase 1, where satisfaction primarily drives loyalty, Phase 2 demonstrates a shift in the role of satisfaction toward perception consolidation, where accumulated customer experiences influence how consumers evaluate and perceive the brand. This indicates that customer satisfaction evolves over time, moving from an immediate behavioral response to a more stable and cumulative construct that shapes brand identity and positioning.

From a microfoundations perspective, these findings suggest that macro-level outcomes—such as market sustainability and regional economic development—are rooted in the aggregation of individual consumer behaviors. Customer satisfaction, as observed in this study, represents a micro-level behavioral mechanism that drives repeated consumption, recommendation, and brand reinforcement. When these behaviors accumulate across a large number of consumers, they generate sustained demand for local products, thereby strengthening the economic position of SMEs within the tourism ecosystem.

When aggregated across a large number of consumers, these behavioral patterns generate a multiplier effect within the urban economy, where repeated consumption and word-of-mouth promotion contribute to sustained demand for local products, ultimately strengthening the economic structure of the city.

This mechanism becomes particularly relevant in the context of tourism-based SMEs, where products such as local souvenirs are closely tied to travel experiences. The findings indicate that satisfied customers are more likely to repurchase products during future visits and recommend them to other tourists. This creates a self-reinforcing demand cycle, where customer satisfaction drives both direct consumption and indirect market expansion through social influence mechanisms.

Based on this perspective, customer satisfaction can be conceptualized as behavioral capital, which represents the accumulation of positive consumer experiences that translate into sustained market demand. Unlike financial capital, which is tangible and directly measurable, behavioral capital is embedded in consumer perceptions and actions, yet it plays a crucial role in determining the long-term sustainability of SMEs. The results of this study provide empirical support for this concept by showing that satisfaction consistently influences both loyalty (Phase 1) and brand image (Phase 2), thereby bridging short-term behavioral outcomes and long-term market positioning.

The implications of these findings extend beyond the firm level and contribute to the understanding of regional economic development. In many tourism studies, the success of a destination is often measured through quantitative indicators such as tourist arrivals and tourist spending. While these indicators capture short-term economic contributions, they do not fully explain the behavioral mechanisms that sustain economic activity over time. This study demonstrates that customer satisfaction plays a critical role in generating sustained demand for local products, which in turn supports SME income and local economic circulation.

In the context of Malang City, where tourism and SMEs are closely interconnected, this mechanism is particularly important. The results suggest that improving customer satisfaction through marketing and service interventions can strengthen demand for local souvenir products, thereby contributing to the sustainability of the local economy. This indicates that regional development strategies should not only focus on increasing tourist spending, but also on enhancing customer experience and satisfaction as key drivers of long-term economic impact. This mechanism is particularly significant in urban contexts such as Malang City, where tourism and SMEs are deeply interconnected within the local economic system. The accumulation of customer-driven demand not only benefits individual firms but also enhances the overall economic resilience of the city.

From a policy perspective, the two-phase design of this study provides practical insights into the effectiveness of SME development programs. Intervention A, which focuses on promotion and service quality, is effective in generating early behavioral responses such as satisfaction and loyalty. Meanwhile, Intervention B, which emphasizes digital marketing, strengthens brand perception and market positioning. The integration of these interventions suggests that a sequential approach to SME development starting from behavioral response formation and followed by market consolidation can produce more sustainable outcomes.

This study proposes the Tourism-Based SME Marketing Sustainability Model (figure 3), which explains how marketing strategies, customer satisfaction, and consumer behavior interact to generate sustained demand and support regional economic development. The model conceptualizes sustainability as a multi-stage process that unfolds across three interconnected layers. At the first layer, policy-driven marketing interventions namely promotion and service quality enhancement (Intervention A), followed by digital marketing and market strengthening (Intervention B) serve as primary inputs that shape consumer experience. The empirical results confirm that these interventions significantly influence customer satisfaction in both phases, although their relative strength varies depending on the nature of the intervention.

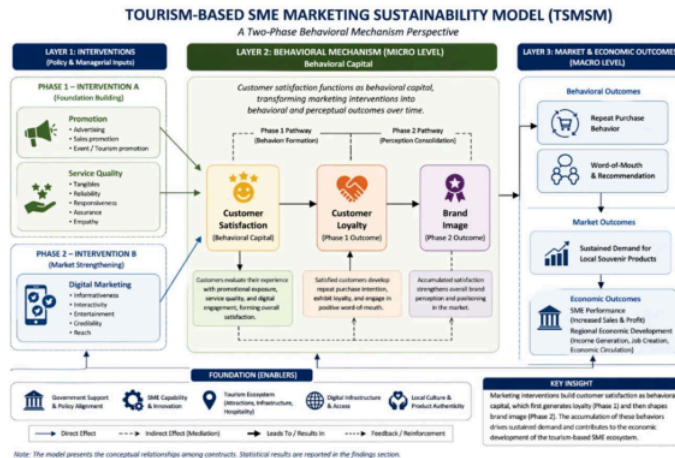


Figure 3. Tourism-Based Marketing Sustainability Model (TSMMSM)

At the second layer, the study identifies customer satisfaction as behavioral capital, which acts as a central mechanism linking marketing efforts with evolving consumer behavior. In Phase 1, customer satisfaction primarily drives customer loyalty, reflected in repeat purchase intention and word-of-mouth behavior. These findings indicate that satisfaction functions as an immediate behavioral response, transforming service and promotional inputs into observable consumer actions. In Phase 2, however, customer satisfaction evolves into a more accumulated and stabilizing construct, significantly influencing brand image formation both directly and indirectly. This shift demonstrates that customer satisfaction is not static but dynamic, transitioning from short-term behavioral activation to long-term perceptual consolidation.

At the third layer, the accumulation of loyalty and brand image strengthens market sustainability, particularly through repeated consumption and social diffusion mechanisms. As customers engage in repeat purchases and actively recommend products to others, demand for local souvenir products becomes more stable and self-reinforcing. This process ultimately contributes to local SME income growth and economic circulation, thereby supporting regional economic development in tourism-based cities.

The TSMMSM thus provides a novel explanation of how micro-level behavioral processes scale into macro-level economic outcomes. Rather than viewing marketing performance as an isolated firm-level phenomenon, the model demonstrates that sustained economic impact emerges from the aggregation of individual consumer experiences and behaviors over time. In this sense, customer satisfaction operates as an intangible yet strategic asset, embedding itself within the consumption ecosystem and shaping long-term market dynamics.

11 From a theoretical perspective, this study contributes to the literature by reconceptualizing customer satisfaction as behavioral capital, extending its role beyond a conventional outcome variable. The results demonstrate that satisfaction functions as a behavioral transmission mechanism, linking marketing inputs with both immediate behavioral outcomes (loyalty) and longer-term perceptual outcomes (brand image). By integrating a time-lagged perspective, the study also highlights the temporal dimension of marketing effectiveness, showing that consumer responses evolve across stages rather than occurring instantaneously. Furthermore, the findings support the microfoundations perspective, suggesting that regional economic outcomes are rooted in the aggregation of individual-level consumer behaviors.

From a managerial standpoint, the results emphasize the critical importance of service quality as a primary driver of customer satisfaction, particularly in the context of tourism-based SMEs. The strong effect of service quality on satisfaction indicates that improving customer

experience through reliability, responsiveness, and assurance should be prioritized over purely promotional efforts. While promotion and digital marketing remain important, their effectiveness is contingent upon their ability to enhance or reflect actual customer experience. Moreover, the strong presence of word-of-mouth behavior suggests that SMEs should actively manage customer-generated content and informal promotion channels, as these represent cost-efficient mechanisms for expanding market reach.

The findings also suggest that digital marketing should be strategically positioned as a reinforcing tool rather than a standalone solution. In Phase 2, digital marketing significantly contributes to brand image formation, particularly when supported by positive customer experiences. This indicates that digitalization efforts should be integrated with service quality improvements to ensure consistency between online representation and offline experience.

7 From a policy perspective, the study highlights the importance of adopting a sequential and behavior-oriented approach to SME development programs. Intervention A, which focuses on promotion and service quality, is effective in generating early behavioral responses such as satisfaction and loyalty. Intervention B, which emphasizes digital marketing, plays a crucial role in consolidating brand perception and strengthening market positioning. This suggests that policy interventions should be designed as progressive stages, rather than isolated programs, to ensure continuity and cumulative impact.

Importantly, the study challenges the conventional reliance on tourist spending as the primary indicator of tourism success. While tourist spending captures short-term economic contribution, it does not fully explain the mechanisms that sustain demand over time. The findings demonstrate that customer satisfaction-driven behaviors such as repeat purchase and word-of-mouth are critical drivers of sustained demand for local products. Therefore, regional development strategies should incorporate behavioral indicators, such as satisfaction, loyalty, and customer advocacy, as complementary measures of program effectiveness.

In the context of Malang City, where tourism and SMEs are closely interconnected, these findings suggest that strengthening customer experience within the local souvenir sector can generate broader economic benefits. By enhancing the capacity of SMEs in service quality, digital marketing, and customer experience management, local governments can foster a more resilient and sustainable tourism economy. The study provides a practical roadmap for aligning marketing strategies, consumer behavior, and regional development objectives. By positioning customer satisfaction as behavioral capital, it offers a more comprehensive framework for understanding how tourism-based SMEs can contribute not only to firm-level performance but also to long-term regional economic sustainability.

21 From an urban development perspective, the findings of this study suggest that behavioral capital plays a crucial role in strengthening local economic sustainability. Unlike traditional economic indicators, behavioral capital captures the continuity of demand, which is essential for maintaining stable income flows within the city. This highlights the importance of integrating behavioral indicators into urban economic planning, particularly in tourism-based cities.

Urban Policy Implications

24 The findings of this study provide important implications for city-level policymakers, particularly in the design and evaluation of tourism and SME development programs. Local governments, such as the Malang City administration, should incorporate behavioral indicators—such as customer satisfaction, loyalty, and word-of-mouth—into their policy evaluation frameworks. These indicators offer a more comprehensive understanding of program effectiveness by capturing the sustainability of demand rather than merely short-term outputs. Furthermore, integrating behavioral capital into urban development strategies can support the creation of a more resilient local economy, where SMEs are able to sustain

income through stable and recurring demand. This approach aligns with the need for adaptive and inclusive urban economic policies in tourism-based cities.

4. Conclusion

⁷ This study demonstrates that customer satisfaction plays a critical role in connecting marketing interventions with behavioral and market outcomes in tourism-based SMEs. Through a two-phase, time-lagged approach, the findings reveal that marketing interventions do not produce immediate and isolated effects, but rather generate progressive behavioral transformations.

¹ In Phase 1, promotion and service quality significantly shape customer satisfaction and customer loyalty, reflecting early behavioral responses following initial interventions. In Phase 2, customer satisfaction continues to influence brand image, indicating that accumulated customer experience contributes to stronger and more stable market perceptions. These results confirm that customer satisfaction is not merely an outcome variable, but a dynamic and evolving construct that bridges short-term behavioral responses and long-term market outcomes.

By integrating findings across both phases, this study conceptualizes customer satisfaction as behavioral capital, which accumulates through repeated positive experiences and translates into sustained demand for local products. This mechanism highlights how individual-level consumer behavior can scale into broader economic effects, supporting SME performance and local economic circulation.

The proposed Tourism-Based SME Marketing Sustainability Model (TSMSM) provides a comprehensive framework that links marketing strategies, customer behavior, and regional economic development. The model emphasizes that sustainable tourism economies are not only driven by increasing tourist spending, but also by strengthening customer satisfaction and experience as key drivers of repeat consumption and word-of-mouth.

³ From a practical perspective, the findings suggest that SME development programs should adopt a sequential and integrated approach, combining promotion, service quality enhancement, and digital marketing to ensure both behavioral formation and market consolidation. For policymakers, this study highlights the importance of incorporating behavioral indicators, such as customer satisfaction and loyalty, as complementary measures of program effectiveness in tourism-based economic development.

At the city level, these findings emphasize that sustainable tourism development requires more than increasing visitor numbers or spending. Instead, it depends on the ability of local economic systems to convert tourist experiences into sustained demand for local products. By positioning customer satisfaction as behavioral capital, this study offers a strategic framework for strengthening urban economic resilience through SME-driven tourism development.

¹²

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Conflict Of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and confidentiality considerations.

Author Contributions

All authors contributed equally to the research. Conceptualization, methodology, data collection, formal analysis, and writing original draft preparation were conducted collaboratively. Writing review and editing, as well as supervision and validation of the research process, were also carried out jointly by all authors. All authors have read and agreed to the published version of the manuscript.

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