

Second-order digital marketing and purchase intention: The intermediary effect of e-service quality in ulos-based small enterprises

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ABSTRACT

The digital transformation era has profoundly altered how small and medium-sized enterprises (SMEs) compete, particularly those in traditional industries. This study examines the relationship between second-order digital marketing and purchase intention, emphasizing the mediating role of e-service quality in Ulos-based SMEs in North Sumatra, Indonesia. Digital marketing is conceptualized as a second-order construct composed of cost efficiency, incentive programs, interactivity, and site design, reflecting the multidimensional nature of digital strategies. Data were collected from customers of Ulos SMEs who had engaged with online platforms through a structured survey. The measurement and structural models were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results confirm that digital marketing significantly affects its four dimensions and positively predicts e-service quality. However, the direct effect of digital marketing on purchase intention was insignificant. Instead, e-service quality strongly affects purchase intention and mediates the relationship between digital marketing and purchase intention. The model explained 54.6% of the variance in e-service quality and 65.9% in purchase intention, indicating substantial explanatory power. The findings contribute theoretically by validating digital marketing as a second-order construct and clarifying the mediating role of e-service quality, thereby addressing prior inconsistencies in the literature. Practically, the results underscore that SMEs, particularly in cultural industries such as Ulos, must integrate service quality with digital marketing to convert exposure into purchase behavior. This study highlights how balancing cultural authenticity with digital innovation enables heritage-based SMEs to achieve sustainability and competitiveness in the digital economy.

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1. Introduction

The acceleration of digital transformation has profoundly reshaped the global economy and how firms compete. Digital technologies have enabled businesses to reduce transaction costs, reach global audiences, and engage in more interactive and data-driven customer relationships. Adopting digital marketing has become particularly crucial for small and medium-sized enterprises (SMEs), given their resource constraints and increasing exposure to global competition (Hairudinor & Rusidah, 2023; Sharabati et al., 2024). Digital marketing encompasses a set of tools and strategies—including cost efficiency, interactivity, incentive programs, and site design—that together create integrated consumer experiences. Treating these components as a second-order construct provides a more comprehensive understanding of how SMEs deploy digital strategies to drive customer engagement (Nasution et al., 2020). Existing literature suggests that digital marketing has strong potential to foster purchase intention and improve firm performance. For instance, Sharabati et al. (2024) showed that SMEs adopting digital campaigns significantly enhanced customer loyalty and sales. Wibisurya (2018) found positive relationships between social media marketing and purchase decisions in Indonesian SMEs. Nevertheless, other scholars have found weaker or insignificant direct effects. For example, Watulingas and Permana (2020) argued that while digital marketing increases brand visibility, it does not necessarily translate into purchase intention unless supported by mediating factors such as trust, service

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quality, or customer satisfaction. This inconsistency indicates that the mechanisms linking digital marketing to purchase intention require deeper exploration. One variable that has received growing attention is e-service quality (ESQ). Defined as customers' evaluations of digital platforms' efficiency, responsiveness, and reliability, ESQ plays a critical role in shaping consumer perceptions and behavior (Parasuraman et al., 2005). Prior studies demonstrate that high ESQ improves customer trust and satisfaction, increasing purchase intention (Hu, 2010; Bhati et al., 2022; Utami & Hidayat, 2024). Moreover, ESQ has been shown to mediate between marketing exposure and consumer behavior. For instance, Peng and Yang (2024) highlighted how advanced technologies amplify the impact of ESQ on consumer patronage, while Qi and Yon (2020) emphasized that service quality indirectly strengthens purchase intention through brand experience and trust. Despite this growing recognition, little is known about how ESQ mediates the effect of second-order digital marketing on purchase intention, especially in traditional SME contexts.

The case of Ulos-based SMEs in North Sumatra, Indonesia, underscores the importance of this research. Ulos, a traditional Batak handwoven textile, is deeply embedded in cultural rituals and social practices. However, despite its symbolic and cultural significance, the Ulos industry has experienced declining sales due to its heavy reliance on conventional marketing practices and slow adoption of digital platforms (Rini & Siregar, 2021). As consumer behavior increasingly shifts online, Ulos SMEs face the dual challenge of preserving cultural authenticity while embracing modern marketing strategies. Digital marketing offers an opportunity to revitalize consumer interest, but its effectiveness hinges on consumers' perceptions of online service quality. Without trustworthy websites, reliable product information, and responsive digital interactions, digital campaigns are unlikely to convert awareness into purchase intentions.

Accordingly, this study seeks to empirically examine the relationship between second-order digital marketing and purchase intention, with e-service quality as a mediator, in the context of Ulos-based SMEs. By adopting this approach, the study makes three contributions. First, it validates the multidimensional, second-order nature of digital marketing, thereby addressing the limitations of prior single-dimensional models. Second, it clarifies the role of e-service quality as an intermediary mechanism, helping to explain why digital marketing sometimes fails to influence purchase intention directly. Third, it extends digital marketing and service quality frameworks to heritage-based SMEs. This domain has been underexplored but is vital for understanding how cultural industries adapt to digital transformation.

2. Literature Review

2.1 Digital Marketing

Digital marketing has evolved into a multidimensional concept integrating various tools and strategies for promoting products and services through digital channels. Unlike traditional marketing, digital marketing incorporates dimensions such as cost efficiency, interactivity, incentive programs, and site design, which collectively enhance firms' ability to engage with consumers (Hairudinor et al., 2023; Sharabati et al., 2024). Prior research often treats digital marketing as a single construct, yet scholars argue that it should be understood as a second-order construct to capture its complexity (Nasution et al., 2020). Conceptualizing digital marketing as second-order allows researchers to assess the presence of digital practices and their interdependence in driving consumer behavior.

2.2 Purchase Intention

Purchase intention is widely recognized as a key indicator of consumer decision-making in digital commerce. It reflects the likelihood of a consumer to purchase a product or service based on cognitive and affective evaluations (Ajzen, 1991; Hu, 2010). Previous studies confirm that digital marketing significantly influences purchase intention by improving consumer awareness, enhancing engagement, and reducing transaction barriers (Sharabati et al., 2024). However, some studies report weaker or insignificant direct effects, suggesting that the pathway from digital exposure to purchase behavior is mediated by other factors such as trust, service quality, or brand loyalty (Watulingas & Permana, 2020). This highlights the need for further exploration of intermediary variables in digital contexts.

2.3 E-Service Quality

E-service quality (ESQ) represents consumers' perceptions of the quality of services delivered through digital platforms. Drawing from the SERVQUAL model, ESQ encompasses website functionality, reliability, responsiveness, and information quality (Parasuraman et al., 2005; Qi & Yon, 2020). In e-commerce environments, high ESQ has been shown to foster customer satisfaction, build trust, and strengthen purchase intention (Utami & Hidayat, 2024). Empirical studies demonstrate that ESQ affects initial purchases and contributes to repurchase intentions and long-term loyalty (Peng & Yang, 2024). Yet, despite this recognition, the mediating role of ESQ in linking second-order digital marketing and purchase intention remains underexplored, particularly in heritage-based SME contexts.

2.4 Theoretical Foundation

Multiple theoretical perspectives underpin this study. The Resource-Based View (RBV) posits that unique resources and capabilities—such as digital marketing competencies—can generate sustainable competitive advantages (Barney, 1991). The Theory of Planned Behavior (TPB) explains consumer intention as a function of attitudes, subjective norms, and perceived

behavioral control, providing a foundation for understanding purchase intention in online environments (Ajzen, 1991). Meanwhile, service quality theory (SERVQUAL/e-SERVQUAL) emphasizes the critical role of service attributes in shaping consumer satisfaction and behavioral outcomes (Parasuraman et al., 2005). Integrating these perspectives allows for a comprehensive framework to explain how digital marketing capabilities influence purchase intention through the mediating mechanism of e-service quality.

2.5 Research Gaps and Contribution

Although numerous studies have examined digital marketing and purchase intention, most focus on single-dimensional constructs or modern industries such as technology and beauty sectors (Utami & Hidayat, 2024; Bhati et al., 2022). Limited attention has been given to second-order conceptualizations of digital marketing in traditional, culturally embedded SMEs such as Ulos enterprises. Moreover, while ESQ is acknowledged as necessary, its role as a mediator in this specific context has not been empirically validated. Addressing these gaps, this study contributes by (1) examining digital marketing as a second-order construct, (2) testing the mediating effect of e-service quality, and (3) situating the analysis within Ulos-based SMEs, thereby extending theory to a novel cultural and economic context.

3. Hypotheses Development

3.1 Digital Marketing and Cost Efficiency

One of the primary dimensions of digital marketing is cost efficiency. Digital platforms allow SMEs to reach a larger market with relatively lower costs than traditional marketing channels (Hairudinor et al., 2023). Prior studies suggest that cost-effective digital strategies enhance SMEs' competitiveness by enabling them to allocate resources efficiently and increase consumer awareness. Hence, digital marketing as a second-order construct is expected to influence cost efficiency positively.

H₁: *Digital marketing positively influences cost efficiency.*

3.2 Digital Marketing and Incentive Programs

Incentive programs, such as discounts, loyalty points, and referral benefits, are widely integrated into digital marketing strategies to stimulate consumer interest. Evidence shows that such programs enhance consumer engagement and drive purchase intention (Sharabati et al., 2024). As part of the second-order digital marketing construct, incentive programs are vital to attracting and retaining customers.

H₂: *Digital marketing positively influences incentive programs.*

3.3 Digital Marketing and Interactivity

Interactivity, reflected in two-way communication and personalized engagement, is a critical determinant of online consumer satisfaction. Interactive platforms such as social media allow SMEs to build closer relationships with their customers (Nasution et al., 2020). Prior research confirms that interactivity increases consumer trust and strengthens behavioral intentions.

H₃: *Digital marketing positively influences interactivity.*

3.4 Digital Marketing and Site Design

Website and platform design are central to digital marketing success. Studies have shown that user-friendly, aesthetically pleasing, and reliable websites significantly improve consumer perceptions and purchasing behavior (Hu, 2010; Qi & Yon, 2020). Effective site design reflects professionalism and reliability for SMEs, directly shaping customer evaluations.

H₄: *Digital marketing positively influences site design.*

3.5 Digital Marketing and E-Service Quality

Digital marketing strategies also impact how consumers evaluate e-service quality. For example, cost efficiency, incentives, interactivity, and site design can directly influence reliability, responsiveness, and usability perceptions. Empirical evidence demonstrates that digital marketing improves e-service quality by enhancing consumer experiences across multiple digital touchpoints (Utami & Hidayat, 2024).

H₅: *Digital marketing positively influences e-service quality.*

3.6 Digital Marketing and Purchase Intention

Although digital marketing is often assumed to increase purchase intention, evidence remains mixed. Some studies confirm a strong linkage (Sharabati et al., 2024), while others suggest that digital marketing's direct effect may be limited without supporting factors such as trust or service quality (Watulingas & Permana, 2020). Given this inconsistency, further empirical investigation is necessary.

H₆: *Digital marketing positively influences purchase intention.*

3.7 E-Service Quality and Purchase Intention

E-service quality has been consistently associated with customer trust, satisfaction, and behavioral outcomes. High-quality digital services lead to improved user experiences, increasing the likelihood of purchase (Bhati et al., 2022; Peng & Yang, 2024). ESQ, therefore, plays a pivotal role in shaping purchase decisions in online contexts.

H7: *E-service quality positively influences purchase intention.*

3.8 Mediating Role of E-Service Quality

Building on the above, it is plausible that e-service quality mediates the relationship between digital marketing and purchase intention. By improving consumers' online experiences, ESQ can bridge the gap between digital marketing exposure and actual behavioral outcomes. Prior studies have hinted at such mediation, but evidence in traditional and cultural SME contexts remains limited (Utami & Hidayat, 2024).

H8: *E-service quality mediates the relationship between digital marketing and purchase intention.*

3. Methodology

3.1 Research Design

This study adopts a quantitative research design using a survey-based approach to investigate the relationship between second-order digital marketing, e-service quality, and purchase intention. The Partial Least Squares–Structural Equation Modeling (PLS-SEM) technique was employed, as it is suitable for testing complex models involving higher-order constructs and mediating effects with relatively small to medium sample sizes (Hair et al., 2021). This methodological choice aligns with capturing the multidimensionality of digital marketing and assessing its indirect effects on purchase intention through e-service quality.

3.2 Sample and Data Collection

The study focused on Ulos-based small enterprises in North Sumatra, Indonesia, representing traditional SMEs rooted in cultural heritage. The unit of analysis was customers who had previously interacted with Ulos SMEs through digital platforms such as social media, e-commerce, or dedicated websites. Data were collected through structured online and offline questionnaires to ensure broader participation. A purposive sampling technique was adopted to target respondents familiar with online shopping and digital marketing campaigns. Out of the distributed questionnaires, a total of *XXX valid responses* were obtained (replace XXX with actual number), which met the minimum sample size required for PLS-SEM analysis according to the “10-times rule” and statistical power considerations (Hair et al., 2021).

3.3 Measurement of Constructs

All constructs were measured using reflective indicators adapted from prior validated studies, with slight modifications to fit the context of Ulos SMEs. Responses were recorded using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Digital Marketing (Second-Order Construct) was operationalized through four dimensions:

Cost Efficiency (4 items) (adapted from Hairudinor et al., 2023).

Incentive Program (4 items) (Sharabati et al., 2024).

Interactivity (4 items) (Nasution et al., 2020).

Site Design (4 items) (Hu, 2010).

E-Service Quality (ESQ) was measured with five items reflecting system usability, information quality, responsiveness, and reliability (Parasuraman et al., 2005; Qi & Yon, 2020).

Purchase Intention (PI) was measured with four items capturing consumers' willingness and intention to buy Ulos products online (Ajzen, 1991; Bhati et al., 2022).

To ensure validity, all measurement items were pre-tested with a small group of respondents and reviewed by academic experts before data collection. Reliability and validity were later assessed using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE).

3.4 Data Analysis Method

The data analysis was conducted using SmartPLS version 4. The evaluation process followed a two-stage approach: (1) measurement model assessment, which included reliability testing (Cronbach's Alpha, rho_A, Composite Reliability), convergent validity (outer loadings, AVE), and discriminant validity (Fornell–Larcker criterion and HTMT ratio); and (2) structural model assessment, which examined path coefficients, t-statistics, and p-values via bootstrapping with 5,000

subsamples. The significance of direct and indirect effects was analyzed to test the hypothesized relationships, including the mediating role of e-service quality. In addition, the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2) were calculated to evaluate the explanatory and predictive power of the model.

4. Results

4.1 Measurement Model

The measurement model was first assessed to evaluate reliability and validity. Table 1 presents the results of indicator loadings, Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). All loadings exceeded the recommended threshold of 0.70, while Cronbach's Alpha and CR values were greater than 0.70, confirming internal consistency reliability. Moreover, AVE values were above 0.50, indicating satisfactory convergent validity (Hair et al., 2021).

Table 1
Reliability and Validity of Constructs

Construct	Item	Loading Factor	AVE	CR	Cronbach's Alpha
Cost	DMC1	0.912	0.829	0.951	0.931
	DMC2	0.912			
	DMC3	0.897			
	DMC4	0.919			
Site Design	DMSD1	0.950	0.877	0.966	0.953
	DMSD2	0.964			
	DMSD3	0.937			
	DMSD4	0.892			
Incentive Program	DMIP1	0.979	0.948	0.987	0.982
	DMIP2	0.984			
	DMIP3	0.962			
	DMIP4	0.969			
Interactivity	DMI1	0.943	0.883	0.968	0.956
	DMI2	0.957			
	DMI3	0.938			
	DMI4	0.921			
E-Service Quality	E-SQ1	0.769	0.707	0.923	0.895
	E-SQ2	0.790			
	E-SQ3	0.896			
	E-SQ4	0.832			
	E-SQ5	0.907			
Purchase Intention	ITP1	0.881	0.821	0.948	0.927
	ITP2	0.885			
	ITP3	0.924			
	ITP4	0.934			

4.2 Discriminant Validity

Discriminant validity was examined using the Heterotrait–Monotrait (HTMT) ratio and Fornell–Larcker criterion. The HTMT values were below the conservative threshold of 0.85, and the square roots of AVE (diagonal values) in the Fornell–Larcker matrix were higher than the inter-construct correlations. Together, these results confirm adequate discriminant validity among the constructs.

Table 2
HTMT Criterion

	Cost	Digital Marketing	E-Service Quality	Incentive Program	Interactivity	Purchase Intention	Site Design
Cost							
Digital Marketing	0.848						
E-Service Quality	0.772	0.795					
Incentive Program	0.534	0.821	0.560				
Interactivity	0.545	0.854	0.615	0.539			
Purchase Intention	0.690	0.709	0.883	0.513	0.546		
Site Design	0.609	0.873	0.630	0.537	0.629	0.550	

Table 3
Fornell–Larcker Criterion

	Cost	Digital Marketing	E-Service Quality	Incentive Program	Interactivity	Purchase Intention	Site Design
Cost	0.910						
Digital Marketing	0.800	0.761					
E-Service Quality	0.708	0.739	0.841				
Incentive Program	0.511	0.792	0.529	0.974			
Interactivity	0.516	0.815	0.574	0.524	0.940		
Purchase Intention	0.641	0.667	0.804	0.489	0.516	0.906	
Site Design	0.575	0.833	0.584	0.520	0.601	0.517	0.936

4.3 Structural Model

After the measurement model was satisfactorily assessed, the structural model was analyzed to test the hypothesized relationships. Bootstrapping with 5,000 resamples was conducted to determine the significance of path coefficients. The results are summarized in Table 4.

Table 4
Hypotheses Testing Results

Hypothesis	Relationship	β (O)	t-value	p-value	Result
H ₁	Digital Marketing → Cost	0.800	20.000	0.000	Supported
H ₂	Digital Marketing → Incentive Program	0.792	13.839	0.000	Supported
H ₃	Digital Marketing → Interactivity	0.815	21.418	0.000	Supported
H ₄	Digital Marketing → Site Design	0.833	16.009	0.000	Supported
H ₅	Digital Marketing → E-Service Quality	0.739	13.469	0.000	Supported
H ₆	Digital Marketing → Purchase Intention	0.161	1.825	0.068	Not Supported
H ₇	E-Service Quality → Purchase Intention	0.686	7.935	0.000	Supported
H ₈	Digital Marketing → ESQ → Purchase Intention	0.507	6.913	0.000	Supported

The results show that digital marketing significantly influences all dimensions (cost, incentive programs, interactivity, and site design) and e-service quality. However, the direct path from digital marketing to purchase intention was insignificant. Instead, e-service quality strongly affected purchase intention and mediated the relationship between digital marketing and purchase intention. This suggests that the effectiveness of digital marketing in enhancing consumer behavior is primarily realized through service quality improvements.

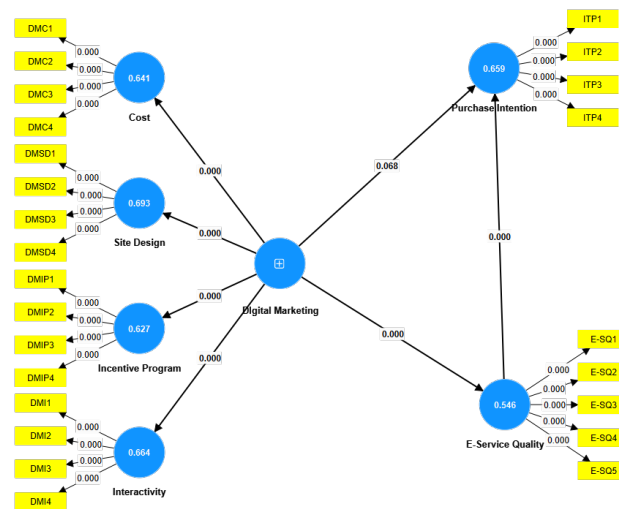


Fig. 1. Hypothesis Testing

Fig. 1 presents the structural model results with standardized path coefficients, p-values, and explained variance (R²). The model explained 54.6% of the variance in e-service quality and 65.9% in purchase intention, indicating substantial explanatory power.

5. Discussion

This study examined the role of e-service quality as an intermediary variable between second-order digital marketing and purchase intention in Ulos-based SMEs in North Sumatra, Indonesia. The results yield several essential insights. First, digital marketing, conceptualized as a second-order construct, significantly explained its dimensions—cost efficiency, incentive programs, interactivity, and site design—validating the multidimensional nature of digital marketing. This finding strengthens the argument that digital marketing cannot be fully understood when treated as a single-dimensional construct, as has been the case in several prior studies. Second, the direct path from digital marketing to purchase intention was statistically insignificant. This indicates that while digital marketing campaigns may increase exposure and awareness, they do not directly translate into consumers' willingness to buy. Instead, e-service quality strongly predicted purchase intention and mediated the relationship between digital marketing and purchase intention. Together, these results underscore the importance of integrating high-quality digital services to bridge the gap between online marketing efforts and actual consumer behavior.

The findings of this study align with prior research in several ways. Scholars such as Hairudinor et al. (2023) and Sharabati et al. (2024) emphasized that digital marketing drives SMEs' competitiveness and sustainability, particularly in dynamic market environments. The strong effect of digital marketing on its underlying dimensions is consistent with studies by Nasution et al. (2020), who argued that SMEs adopting multidimensional digital strategies achieved higher consumer engagement. However, this study departs from others in finding that the direct effect of digital marketing on purchase intention

is insignificant. For instance, Sharabati et al. (2024) reported a positive linkage between digital marketing and purchase behavior in Middle Eastern SMEs, while Wibisurya (2018) found similar results in Indonesian SMEs. By contrast, our findings are more consistent with Watulingas and Permana (2020), who concluded that digital marketing may increase awareness but does not guarantee purchase intention unless reinforced by trust and service quality. This divergence highlights the contextual differences across industries and suggests that traditional SMEs with cultural products like Ulos may require additional mechanisms—specifically service quality—to achieve consumer conversion.

Theoretically, these findings can be explained using the Theory of Planned Behavior (TPB). According to Ajzen (1991), purchase intention is not solely influenced by exposure or attitudes but also by perceived behavioral control and subjective norms. In the case of Ulos, even if consumers are exposed to attractive digital marketing campaigns, their intention to buy depends on whether the online platform provides a trustworthy and convenient experience. Similarly, the Resource-Based View (RBV) suggests that competitive advantage arises not only from the possession of strategic resources (such as digital marketing capabilities) but also from the integration of complementary resources (such as service quality). This explains why digital marketing exerts a significant indirect effect through e-service quality rather than directly on purchase intention. By embedding marketing strategies within high-quality online services, SMEs can transform their digital capabilities into meaningful consumer outcomes.

The mediating role of e-service quality observed in this study is consistent with prior findings that emphasize the centrality of online service quality in shaping consumer trust, satisfaction, and loyalty (Utami & Hidayat, 2024; Peng & Yang, 2024). In digital contexts, consumers evaluate the promotional content they encounter and the efficiency, reliability, and responsiveness of the digital platforms through which they interact. A poorly designed website, delayed responses, or inaccurate product information can undermine even the most sophisticated marketing strategies. Conversely, strong e-service quality enhances consumers' confidence, strengthening purchase intention. This finding is particularly relevant for heritage-based SMEs, where trust and authenticity are critical. For Ulos enterprises, consumers may hesitate to purchase traditional textiles online unless they are assured of product authenticity, clear information, and reliable delivery systems, all elements of e-service quality.

The unique context of Ulos-based SMEs further reinforces these findings. Unlike modern consumer goods, Ulos is deeply embedded in cultural traditions and carries symbolic meaning in Batak society. Consumers purchasing Ulos products may not be motivated by mere exposure to digital marketing but by assurances that the online purchase process respects the product's authenticity, value, and symbolic meaning. Therefore, the cultural embeddedness of Ulos intensifies the need for SMEs to provide trustworthy and high-quality digital services. This aligns with studies in other cultural industries, such as handicrafts and heritage tourism, where digital marketing was found to increase visibility but required strong service quality to achieve purchase conversions. Our findings suggest that for traditional SMEs, digital transformation cannot be reduced to digital advertising; it must also encompass investments in service design, customer responsiveness, and information reliability.

This study contributes to the literature in three main ways. First, it empirically validates the conceptualization of digital marketing as a second-order construct, thus providing a more holistic framework for future research. Prior studies often overlooked the interdependence of digital marketing's dimensions. Still, this study demonstrates that cost efficiency, incentive programs, interactivity, and site design jointly capture the complexity of SMEs' digital practices. Second, the findings clarify the inconsistent results reported in earlier studies by highlighting the mediating role of e-service quality. By showing that digital marketing's impact on purchase intention operates primarily through e-service quality, this research offers a theoretical explanation for why digital marketing sometimes fails to predict purchase intention directly. Third, by applying the model to Ulos-based SMEs, the study extends digital marketing and service quality theories into a culturally embedded SME context, which has been underexplored in the literature.

From a practical standpoint, the results offer clear implications for SME managers and policymakers. For Ulos SMEs, the findings highlight that investments in digital marketing must be complemented with equal attention to service quality. Developing visually appealing websites, ensuring product information accuracy, and providing responsive digital support are crucial for transforming digital exposure into actual purchase behavior. Managers should avoid over-reliance on promotions and social media visibility, as these may create awareness but not necessarily purchase commitment. Furthermore, policymakers can use these insights to design programs supporting SMEs in upgrading their marketing and service capabilities. For example, government-led digital training programs could include modules on e-service quality, customer trust-building, and cultural branding strategies. This dual approach would enhance SMEs' competitiveness and safeguard the cultural heritage embodied in Ulos.

Finally, the study has broader implications for SMEs in developing economies. As digital markets become more competitive, SMEs cannot rely solely on adopting digital marketing technologies. Instead, they must integrate digital marketing with high-quality online services to meet evolving consumer expectations. The findings suggest that the sustainability of cultural and traditional SMEs depends on their ability to balance authenticity with digital innovation. This balance requires technical investments and strategic thinking about how digital marketing and e-service quality can reinforce each other in building consumer trust and purchase intentions.

6. Conclusion

This study sought to investigate the role of e-service quality as a mediator between second-order digital marketing and purchase intention within Ulos-based SMEs in North Sumatra, Indonesia. By adopting a PLS-SEM approach, the research confirmed that digital marketing significantly influenced its dimensions—cost efficiency, incentive programs, interactivity, and site design—validating its conceptualization as a second-order construct. Furthermore, digital marketing was shown to influence e-service quality strongly, but its direct effect on purchase intention was statistically insignificant. Instead, e-service quality emerged as a critical predictor of purchase intention and acted as a mediator that translated digital marketing strategies into consumer behavioral outcomes. These findings highlight that while digital marketing can enhance exposure and engagement, the actual conversion into purchase behavior is realized only when consumers perceive high-quality online services.

Theoretically, this research makes several contributions. First, it responds to calls in the literature to treat digital marketing as a multidimensional construct rather than a one-dimensional variable. By conceptualizing digital marketing as second-order, this study provides a more comprehensive lens for future research. Second, the findings clarify inconsistent results regarding the direct link between digital marketing and purchase intention. Previous studies have yielded mixed outcomes: some reported strong positive effects, while others found the relationship insignificant or context-dependent. This study explains by empirically demonstrating the mediating role of e-service quality. Third, by applying the framework in the context of heritage-based SMEs, the study extends the applicability of digital marketing and e-service quality theories into new domains that have traditionally received little scholarly attention. This contextual extension enriches knowledge by linking cultural entrepreneurship with digital transformation.

From a practical perspective, the findings provide several important insights. For managers of Ulos SMEs, the results indicate that digital marketing activities such as cost-efficient promotions, incentive schemes, interactive engagement, and aesthetically pleasing website design are necessary but insufficient. The perceived quality of online services ultimately drives consumers to make purchase decisions. This underscores the need for SMEs to invest in service dimensions such as website usability, responsiveness to customer inquiries, timely delivery, and assurance of product authenticity. For policymakers and development agencies, the findings emphasize the importance of integrated capacity-building programs that teach SMEs how to use digital marketing tools and maintain service excellence in online environments. Training modules could, for instance, focus on customer experience management, online trust-building strategies, and digital branding for cultural products. These practical contributions ensure heritage-based SMEs can sustain cultural value while thriving in competitive digital markets.

Despite its contributions, the study is not without limitations. Methodologically, using cross-sectional survey data restricts the ability to establish causality among the variables. While PLS-SEM is suitable for testing complex models with second-order constructs, it remains correlational. Longitudinal designs would be more appropriate to capture the dynamic evolution of digital marketing practices and consumer responses over time. Another limitation relates to the reliance on self-reported data, which may be subject to common method bias or social desirability effects. Although procedural remedies such as anonymity assurances were employed, future studies should consider triangulating survey data with behavioral metrics (e.g., actual website analytics or purchase records) to improve validity.

The study is also contextually bounded. By focusing on Ulos-based SMEs in North Sumatra, the results may not be generalizable to other industries or cultural settings. Ulos is not merely a product but a cultural artifact embedded in rituals and traditions, which shapes consumer perceptions in ways that may not apply to generic consumer goods. Thus, while the findings contribute to understanding the intersection of cultural heritage and digital transformation, they must be interpreted cautiously when applied to different contexts. Moreover, while sufficient for PLS-SEM analysis, the sample size was geographically concentrated, potentially limiting external validity. Replications in other cultural SMEs or in different regions of Indonesia and beyond would help validate the robustness of the findings.

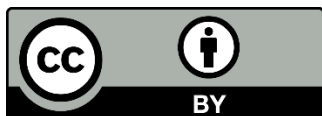
Building on these limitations, several avenues for future research are suggested. First, future studies could incorporate additional mediating or moderating variables, such as customer trust, brand loyalty, or perceived value, to provide a more nuanced understanding of how digital marketing influences purchase intention. Second, researchers could explore cross-industry or cross-country comparisons to examine whether the observed relationships hold in different cultural or institutional contexts. Third, qualitative or mixed-methods approaches could enrich the findings by capturing deeper insights into consumer perceptions, especially in cultural heritage industries where symbolic meanings are critical. Fourth, technological advancements such as artificial intelligence, augmented reality, or blockchain-based authenticity verification could be integrated into future models to examine their influence on service quality and purchase intention. Finally, future studies may also consider the role of generational or demographic differences in shaping responses to digital marketing and e-service quality, given that younger consumers may respond differently compared to older ones.

In conclusion, this study demonstrates that the effectiveness of digital marketing lies not only in the deployment of multidimensional strategies but also in the assurance of high e-service quality. For Ulos SMEs, balancing cultural authenticity with digital innovation is essential for achieving business sustainability and artistic preservation. The findings provide valuable contributions to theory, extend the boundaries of digital marketing research into heritage-based SMEs, and offer practical guidance for managers and policymakers seeking to support traditional enterprises in adapting to the digital economy.

By situating the analysis at the intersection of culture and technology, this study underscores the importance of service quality as the bridge that transforms digital exposure into meaningful consumer behavior.

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