




“A moderated mediation model of the relationship among digital marketing campaigns, brand recall, purchase intention, and purchase decision”

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A MODERATED MEDIATION MODEL OF THE RELATIONSHIP AMONG DIGITAL MARKETING CAMPAIGNS, BRAND RECALL, PURCHASE INTENTION, AND PURCHASE DECISION

Abstract

Understanding how digital marketing campaigns translate into online purchase decisions remains a critical issue in rapidly growing e-commerce markets. This study explores how digital marketing campaigns translate into online purchase decision by testing a moderated mediation model in which purchase intention serves as a mediator and brand recall functions as a moderator in e-commerce. A two-wave survey design was employed, with data collected at two different time points separated by a time interval, in order to mitigate common method bias and strengthen causal inference. A two-wave survey was conducted among 297 online consumers aged 18 years and above who had prior experience with major e-commerce platforms in Vietnam. Data were collected via structured online questionnaires using a convenience sampling approach and analyzed with R statistical packages to test the proposed relationships. The empirical results indicate that digital marketing campaigns have a significant positive effect on purchase decisions, with purchase intention serving as a key mediating mechanism ($\beta = 0.120$, 95% CI [0.058, 0.195], $p = 0.001$). Besides, the total effect of digital marketing campaigns on purchase decisions was found to be significant ($\beta = 0.485$, 95% CI [0.384, 0.596], $p < 0.001$). The moderated mediation analysis further shows that the indirect effect remains positive across levels of brand recall but is strongest and statistically significant at low levels of brand recall, while gradually weakening and becoming statistically insignificant at higher levels, declining from 0.090 at -2 SD to 0.020 at $+2$ SD. These findings suggest that when brand recall is low, consumers are more likely to rely on central-route processing, whereby purchase intention plays a pivotal role in translating digital marketing exposure into purchase decisions. As brand recall increases, the influence of this intention-based pathway diminishes. By identifying low brand recall as a boundary condition of central-route persuasion within the Elaboration Likelihood Model (ELM), this study clarifies how digital marketing effectiveness varies across consumer cognitive states and provides differentiated strategic implications for emerging versus well-established brands in e-commerce contexts.

Keywords digital marketing, marketing campaign, brand recall, purchase intention, purchase decision, e-commerce

JEL Classification D12, E21, M31

INTRODUCTION

The rapid advancement of computer science and communication technologies has provided a solid foundation for the growth of e-commerce. By early 2025, approximately 5.64 billion individuals – representing nearly 68.7% of the world's population – were active internet users (World Population Review, 2025), positioning e-commerce as one of the most prominent applications of the internet. In Vietnam, e-commerce accounted for about 10% of total retail sales and consumer service revenue in 2024, marking a considerable rise from 8.5% in 2022 (VietNam E-Commerce Association VECOM, 2024). Offering



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advantages such as cost-effectiveness, extensive market reach, comprehensive functionalities, and operational flexibility (Qin et al., 2025), e-commerce has increasingly become a strategic priority for enterprises seeking to strengthen and integrate digital commerce into their operations.

The rapid expansion of e-commerce has fundamentally reshaped consumer behavior, thereby elevating the strategic importance of digital marketing (Gao et al., 2023). Digital marketing enhances business performance by strengthening Customer Relationship Management (CRM), which in turn generates greater value in terms of profitability and sales outcomes (Hadiyati et al., 2024). Moreover, this transformation has enabled unprecedented levels of consumer engagement, allowing individuals to access product information more efficiently and to develop more favorable attitudes toward brands and services (Agus et al., 2021). However, the use of diverse digital marketing tools is closely associated with consumers' brand recall, which subsequently influences the effectiveness of CRM practices (Van Steenburg, 2012). Collectively, these influences may exert both direct and indirect effects on consumers' purchase intention and purchase decisions (Nguyen & Tran, 2022; Putri, 2021).

The rapid growth of e-commerce, driven by advancements in digital technologies and increasing internet penetration, has fundamentally reshaped consumer purchasing behavior and intensified the strategic importance of digital marketing. Although existing research consistently demonstrates the strong influence of digital marketing campaigns on purchase intention (Otopah et al., 2024), a key question persists: to what extent do these intentions translate into actual purchase decisions? This gap highlights a critical limitation in existing research, which often emphasizes attitudinal or intentional outcomes rather than concrete behavioral responses. Moreover, limited attention has been paid to the cognitive mechanisms that condition how consumers process marketing stimuli and translate them into purchasing actions. In particular, the role of brand recall as a contingent factor influencing information processing and decision-making has not been adequately examined. Addressing these issues is essential for advancing theoretical understanding and for guiding firms in designing more effective digital marketing strategies in increasingly competitive e-commerce environments.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In consumer behavior research, the Theory of Planned Behavior has been widely applied to explain the mechanisms underlying consumers' purchase intentions and purchasing decisions (Hoo et al., 2024). The Theory of Planned Behavior (TPB), an extension of the Theory of Reasoned Action, provides a comprehensive framework for understanding the antecedents of actual behavior (Ajzen, 1991a). According to TPB, three types of beliefs shape human behavior: behavioral beliefs, which concern the expected consequences of the behavior; normative beliefs, which reflect the perceived expectations of significant others; and control beliefs, which refer to the perceived presence of factors that may facilitate or hinder behavioral performance (Bosnjak et al., 2020). These beliefs, in turn, influence three key psychological con-

structs: attitudes toward the behavior (derived from behavioral beliefs), subjective norms (stemming from normative beliefs), and perceived behavioral control (arising from control beliefs) (Ajzen, 1991b). Intention, determined by these three factors, serves as the immediate antecedent of actual behavior. Stronger intentions generally translate into a higher likelihood of performing the behavior. However, the realization of actual behavior also depends on the availability of requisite opportunities and resources, referred to as actual behavioral control (Ajzen, 1991a; Bosnjak et al., 2020).

Another influential theory for elucidating the mechanisms underlying purchase intention and consumer behavior is the Elaboration Likelihood Model (ELM) (Duong et al., 2025). Developed by Petty and Cacioppo (1986), the ELM provides a comprehensive framework for "organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive com-

munications”. The ELM conceptualizes attitude change as a dual-process mechanism, indicating that persuasion operates through two distinct routes: “the central route” and “the peripheral route” (Petty & Cacioppo, 1986). Persuasion via the central route arises from an individual’s careful and thoughtful evaluation of the substantive merits of the information presented in support of an argument. In contrast, persuasion through the peripheral route occurs when individuals rely on simple cues within the communication context – such as the attractiveness or credibility of the source – without engaging in detailed scrutiny of the message content (Kitchen et al., 2014; Petty & Cacioppo, 1986). Both routes contribute to shaping persuasive outcomes and have been widely applied in marketing contexts activities (Schumann et al., 2012). This theoretical framework is particularly relevant to the present study, as digital marketing campaigns deliver meaningful information to receivers, thereby influencing their decision-making processes.

Digital marketing – also known as e-marketing or internet marketing – refers to the use of the internet and related digital technologies, in combination with traditional communication tools, to achieve marketing objectives (Chaffey et al., 2006; Pandey et al., 2020). It is implemented across multiple channels, such as company-owned websites, third-party e-commerce platforms, two-sided marketplaces, company-sponsored blogs, multi-channel capabilities, and mobile applications or sales assistants (Herhausen et al., 2020; Taiminen & Karjaluoto, 2015). The implementation of digital marketing campaigns generates significant value for managers across diverse business settings, enabling them to pursue strategic orientations such as market prospectors, low-cost defenders, differentiated defenders, and market analyzers (Kaur & Kathuria, 2023; Olson et al., 2021). Ultimately, these benefits are closely linked to, and derived from, consumers’ purchase intentions and purchasing behaviors.

Purchase intention reflects the likelihood that consumers are likely to engage in a future purchase of a particular product or service (Sequeira et al., 2025; Wu et al., 2011), whereas purchase decision refers to the actual act of completing the transaction (Hairudinor & Rusidah, 2023). In the

present study, digital marketing campaigns are theorized to enhance the three categories of beliefs – behavioral, normative, and control – thereby strengthening purchase intention, which subsequently increases the likelihood of purchase behavior (Alwan & Alshurideh, 2022). According to the Theory of Planned Behavior (TPB), higher level of purchase intention generally translates into a stronger likelihood of purchase decision. However, not all intentions culminate in actual purchase behavior, as the conversion process depends on various contextual conditions and determinants. When businesses design digital marketing campaigns, they transmit multiple persuasive messages to customers. These messages shape consumers’ perceptions and perceived value of products, reinforcing or altering their beliefs about the brand. In this regard, digital marketing campaigns function as a key informational source that strengthens customer beliefs and enhances purchase intention (Alwan & Alshurideh, 2022). Drawing on the Theory of Planned Behavior (TPB), stronger purchase intentions are more likely to translate into actual purchase decisions, as customers’ beliefs formed through digital marketing enhance their readiness to act (Prasad et al., 2019).

However, the relationship between digital marketing, purchase intention, and purchase behavior is further moderated by brand recall. Brand recall is a fundamental aspect of brand equity (Erfgen et al., 2015) that refers to “consumers’ ability to retrieve the brand when given the product category, the needs fulfilled by the category, or some other type of probe as a cue” (Keller, 1993). This is distinct from brand recognition, which involves identifying a brand when its name or logo is presented (Keller, 1993). It is a core component in determining the success of brand equity. Importantly, brand recall plays a critical role in the persuasion process of marketing campaigns (Donovan et al., 2016; Tessitore & Geuens, 2013). Brand recall represents a deeper level of consumer-brand connection through marketing campaigns, as it demonstrates that the brand is readily accessible in the consumer’s mind, often making it a key component of their consideration set when making a purchase decision (Erfgen et al., 2015). In this sense, the recall process enhances the influence of digital marketing on purchase intention, such that digital marketing campaigns are more effective in

stimulating purchase intention among consumers with higher levels of brand recall (Abdul Adis & Kim, 2013; Byun & Dass, 2015). This mechanism aligns with the peripheral route of the Elaboration Likelihood Model (ELM). When brand recall is activated within digital marketing campaigns, consumers are more likely to develop purchase plans, as persuasion in this route occurs through external cues (e.g., brand recall) rather than the substantive evaluation of message content (Kitchen et al., 2014; Petty & Cacioppo, 1986). Accordingly, brand recall can serve as a positive moderator of the relationship between digital marketing campaigns and purchase intention.

Based on the Theory of Planned Behavior (TPB), prior research has highlighted the interrelationship among digital marketing campaigns, purchase intention, and purchase decisions, showing that digital marketing campaigns positively affect purchase decisions through purchase intention, thereby confirming the mediating mechanism (Diventy et al., 2020; Qtaishat, 2022). However, the relationship between digital marketing campaigns and purchase intention is contingent upon the level of brand recall, as explained by the Elaboration Likelihood Model (ELM). Within the peripheral route of the ELM, brand recall functions as a retrieval cue for the brand, amplifying the persuasive effect of digital marketing campaigns on purchase intention. Higher levels of brand recall are expected to strengthen this relationship, whereas lower levels may weaken it. This theoretical perspective also explains why digital marketing campaigns sometimes exert a significant positive effect on purchase intention (Alwan & Alshurideh, 2022), while in other contexts the effect may be insignificant (Nguyen & Tran, 2022). Taken together, these arguments suggest a moderated mediation mechanism: while purchase intention mediates the relationship between digital marketing campaigns and purchase decisions, the strength of this indirect effect depends on consumers' level of brand recall. More specifically, the indirect influence of digital marketing campaigns on purchase decisions via purchase intention is anticipated to be stronger when brand recall is high and weaker when it is low.

Consequently, the Theory of Planned Behavior and the Elaboration Likelihood Model provide an

appropriate and theoretically coherent foundation for the present study.

Building upon the foregoing discussion, this research aims to examine the underlying relationships among digital marketing, brand recall, purchase intention, and purchase decisions. Accordingly, the following hypotheses are proposed:

- H1: Purchase intention positively mediates the relationship between digital marketing campaigns and purchase decisions.*
- H2: Brand recall positively moderates the relationship between digital marketing campaigns and purchase intention.*
- H3: The indirect effect of digital marketing campaign on purchase decision through purchase intention is moderated by brand recall, such that the indirect effect is stronger when brand recall is high and weaker when brand recall is low.*

2. METHODOLOGY

This study employed a quantitative research design to examine the relationships among digital marketing campaigns, brand recall, purchase intention, and purchase decisions. Respondents were instructed to recall a specific brand they had purchased on an e-commerce platform within the past month that was influenced by digital marketing activities, thereby grounding all evaluations in a concrete, recent, and behaviorally relevant brand context rather than general brand perceptions. All items in the survey were measured using a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The measurement instruments were originally developed in English. To ensure translation accuracy, the Vietnamese version of the survey was produced using the back-translation method. Digital marketing campaigns were measured using a six-item scale developed by AlSokkar et al. (2024). Example items include: "I value the online marketing campaign" and "I am interested in exploring the online marketing campaign". The scale's Cronbach's Alpha coefficient is 0.90. Purchase intention was assessed using a

ten-item scale adapted from Hausman and Siekpe (2009) and Martin and Bush (2000). Sample items include: “I intend to purchase through online platforms in the near future” and “I recommend products or brands on e-commerce to someone who seeks my advice”. The scale showed high reliability, with a Cronbach’s Alpha coefficient of 0.92. Brand recall was measured using a six-item scale from Gesmundo et al. (2022). Example items are: “I can easily recall a brand name that is promoted in e-commerce” and “After many days, I can still remember the brand I have watched on e-commerce.” The scale demonstrated high reliability, with a Cronbach’s Alpha of 0.91. Purchase behavior was assessed using a three-item scale adapted from Kim and Lee (2023) and Tsai et al. (2019). A sample item is: “I have been purchasing on e-commerce on a regular basis.” The scale achieved acceptable reliability, with a Cronbach’s alpha coefficient of 0.77.

This study was conducted in Ho Chi Minh City, Vietnam, one of the most dynamic e-commerce markets in Asia (Nguyen, 2025). The target population comprised internet-literate adults aged 18 years or older who had prior experience with online shopping on major e-commerce platforms. This group represents the primary decision-making consumers in digital commerce and is therefore appropriate for examining TPB- and ELM-based mechanisms underlying online purchase behavior. Furthermore, Vietnam’s rapid digital adoption and strong engagement with e-commerce platforms make this context highly relevant for investigating digital marketing effectiveness in emerging online markets. A screening question was included at the beginning of the questionnaire to exclude participants who did not meet these criteria. Data were collected through an online survey distributed via Zalo, TikTok, and Facebook, employing a two-wave design to minimize common method bias. At Time 1, participants responded to items measuring digital marketing campaigns, brand recall, and purchase intention. A follow-up survey was administered two weeks later (Time 2) to measure their actual purchase decisions. Of the 306 initial responses, nine were removed due to incomplete or invalid data, resulting in 297 valid questionnaires collected between July and October 2024. This sample size exceeds the minimum threshold recommended for

structural equation modeling, ensuring adequate statistical power and stable parameter estimation (Hair et al., 2019).

The demographic analysis of the sample indicated a skewed gender distribution, with a substantial majority of respondents being male (88%), while females accounted for only 12%. Regarding age, the largest proportions of participants fell within the 20-32 age group and the over-40 category. Most participants reported earning between 15,000,000 VND and over 20,000,000 VND per month.

All statistical analyses were performed using R Studio. The dataset, imported in CSV format, was carefully examined to identify and remove missing or inconsistent entries prior to analysis. The reliability and validity of the measurement scales were assessed through tests of internal consistency and construct validity. Subsequently, hypothesis testing was conducted utilizing a set of specialized R packages. Following Hayes (2022), this study adopted a conditional process modeling approach to concurrently examine the mediating and moderating mechanisms embedded within the proposed conceptual framework. Specifically, purchase intention was modeled as a mediator linking digital marketing campaigns to purchase decision, whereas brand recall functioned as a moderator conditioning the strength of this indirect effect. The lavaan package was employed to estimate the structural equation model (SEM) and to test the mediating, moderating, and moderated mediation relationships. The bootstrapping technique (5,000 resamples) was applied to compute bias-corrected confidence intervals for the conditional indirect effects, ensuring robustness and inferential accuracy of the results.

Prior to each survey wave, participants were provided with detailed information regarding the study’s purpose, the voluntary nature of their participation, and their right to withdraw from the study at any time without penalty. Informed consent was obtained from all participants before data collection. This research was based solely on self-reported perceptions and purchasing behaviors and did not involve any form of physical, psychological, or clinical intervention. Accordingly, the study posed no foreseeable ethical risks to participants. All responses were handled with strict

confidentiality, and appropriate data protection procedures were implemented to ensure the anonymity and security of the collected data.

3. RESULTS

To further establish the robustness of the measurement model, confirmatory factor analysis (CFA) was conducted. All standardized factor loadings exceeded the recommended threshold of 0.70, indicating strong item reliability. Composite Reliability (CR) values for all constructs ranged from 0.87 to 0.93, surpassing the benchmark of 0.70. Average Variance Extracted (AVE) values were above 0.50, confirming convergent validity (see Table 1). Discriminant validity was verified using the Fornell-Larcker criterion, whereby

the square root of the AVE for each construct was greater than its correlations with other constructs (Table 2). Additionally, the Heterotrait-Monotrait (HTMT) ratios of correlations were all below 0.85, providing further evidence of discriminant validity (Table 3).

The results of the measurement model evaluation indicated that all constructs demonstrated satisfactory reliability, convergent validity, and discriminant validity, thereby confirming that the measurement scales were appropriate for subsequent hypothesis testing using the friendly R package.

Prior to testing the hypotheses, Table 4 presents the descriptive statistics, including the mean, standard deviation, and covariance, for all vari-

Table 1. Construct measurement

Construct	No. of items	Factor loadings	Cronbach's Alpha	CR	AVE
Digital marketing campaign	6	0.70 ~ 0.87	0.90	0.92	0.67
Purchase intention	10	0.72 ~ 0.84	0.92	0.93	0.70
Brand recall	6	0.82 ~ 0.86	0.91	0.93	0.66
Purchase decision	3	0.80 ~ 0.88	0.77	0.87	0.69

Note: N = 297.

Table 2. Fornell-Larcker criterion

Construct	Brand recall	Digital marketing campaign	Purchase intention	Purchase decision
Brand recall	0.837			
Digital marketing campaign	0.667	0.817		
Purchase intention	0.495	0.516	0.799	
Purchase decision	0.543	0.616	0.577	0.829

Note: N = 297.

Table 3. HTMT

Construct	Brand recall	Digital marketing campaign	Purchase intention	Purchase decision
Brand recall				
Digital marketing campaign	0.733			
Purchase intention	0.505	0.537		
Purchase decision	0.643	0.742	0.667	

Note: N = 297.

Table 4. Mean, SD, and correlation between variables

Construct	Mean	SD	1	2	3	4
1. Brand recall	5.31	1.24	1.00			
2. Digital marketing campaign	5.77	1.10	0.711***	1.00		
3. Purchase intention	6.10	0.84	0.480***	0.530***	1.00	
4. Purchase decision	6.00	0.84	0.647***	0.752***	0.642***	1.00

Note: *** p < 0.001.

ables. A key finding from the table is the presence of significant correlations among all the variables under investigation.

The mediation hypothesis was tested using the lavaan package in R. Table 5 presents the regression results of the mediation model, which was estimated using a bootstrap technique with 5,000 resamples. A significant direct relationship was found between digital marketing campaign and purchase intention ($\beta = 0.372$, 95% CI [0.243, 0.512], $p < 0.001$). Furthermore, when both digital marketing campaign and purchase intention were included as simultaneous predictors, both variables remained significant determinants of purchase decision. Specifically, the direct effect of digital marketing campaign on purchase decision was significant ($\beta = 0.364$, 95% CI [0.270, 0.461], $p < 0.001$), as was the effect of purchase intention on purchase decision ($\beta = 0.323$, 95% CI [0.174, 0.473], $p < 0.001$). These findings indicate the presence of partial mediation. The analysis also revealed a significant indirect effect of digital marketing campaign on purchase decision via purchase intention ($\beta = 0.120$, 95% CI [0.058, 0.195], $p = 0.001$). The total effect of the digital marketing campaign on purchase decision was also significant ($\beta = 0.485$, 95% CI [0.384, 0.596], $p < 0.001$). Based on these results, Hypothesis 1 is supported.

The moderation analysis, summarized in Table 6, examined the influence of brand recall on the relationship between digital marketing campaign and

purchase intention. The results showed that both digital marketing campaign ($\beta = 0.186$, 95% CI [0.060, 0.340], $p < 0.01$) and brand recall ($\beta = 0.167$, 95% CI [0.074, 0.256], $p < 0.001$) had significant positive effects on purchase intention. However, the interaction term (digital marketing campaign \times brand recall) was not significant ($\beta = -0.048$, 95% CI [-0.110, 0.051], $p > 0.05$). This finding indicates that brand recall does not moderate the relationship between digital marketing campaign and purchase intention. Consequently, Hypothesis 2 is not supported.

Table 7 and Figure 1 illustrate the conditional indirect effects of digital marketing campaign on purchase decision via purchase intention at varying levels of brand recall. The results indicate that the indirect effect is statistically significant at low and moderate levels of brand recall (-2 SD, -1 SD, and mean), as the bootstrap confidence intervals do not include zero. However, at higher levels of brand recall ($+1$ SD and $+2$ SD), the confidence intervals include zero, suggesting that the indirect effect becomes statistically insignificant. Moreover the magnitude of this effect decreases as brand recall increases (from 0.090 at -2 SD to 0.020 at $+2$ SD). These results contradict the proposed hypothesis that higher brand recall strengthens the indirect effect. Instead, the conditional indirect effects demonstrate a decreasing trend: the mediating role of purchase intention is stronger when brand recall is low and weakens as brand recall increases, ultimately becoming statistically insignif-

Table 5. Mediating test of purchase intention on the relationship between digital marketing campaign and purchase decision

Dependent variable	Predictor	Coefficient	SE	t-value	p-value	95% CI
Purchase intention	Digital marketing campaign (a)	0.372	0.069	5.420	0.000	[0.243, 0.512]
Purchase decision	Digital marketing campaign (c')	0.364	0.049	7.375	0.000	[0.270, 0.461]
	Purchase intention (b)	0.323	0.077	4.172	0.000	[0.174, 0.473]
Indirect effect	Digital marketing campaign \rightarrow Purchase intention \rightarrow purchase decision (a*b)	0.120	0.035	3.438	0.001	[0.058, 0.195]
Total effect	Digital marketing campaign \rightarrow purchase decision (c' + a*b)	0.485	0.054	8.985	0.000	[0.384, 0.596]

Table 6. Moderating test of brand recall on the relationship between digital marketing campaign and purchase intention

Predictor	Coefficient	SE	t-value	p	95% CI [LL, UL]
Digital marketing campaign	0.186	0.071	2.603	0.009	[0.060, 0.340]
Brand recall	0.167	0.046	3.634	0.000	[0.074, 0.256]
Digital marketing campaign \times brand recall	-0.048	0.043	-1.111	0.266	[-0.110, 0.051]

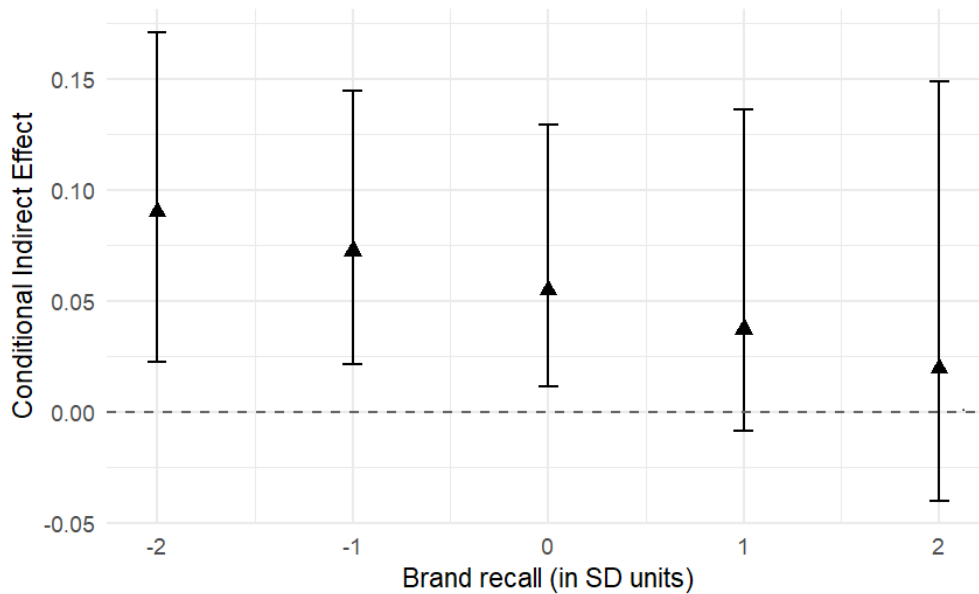


Figure 1. Conditional indirect effect

icant at higher levels. This suggests that brand recall attenuates rather than enhances the mediating effect. Therefore, Hypothesis 3 is not supported.

Table 7. Results of conditional indirect effect

Level of brand recall	Indirect effect	SE	95% CI [LL, UL]
-2 SD	0.090	0.038	[0.023, 0.171]
-1 SD	0.073	0.032	[0.022, 0.144]
Mean	0.055	0.030	[0.011, 0.129]
+1 SD	0.037	0.038	[-0.008, 0.136]
+2 SD	0.020	0.050	[-0.040, 0.149]

4. DISCUSSION

The findings provide evidence that purchase intention mediates the relationship between digital marketing campaign and purchase decision. This result is consistent with previous findings demonstrating that digital marketing is positively related to purchase decision (Hairudinor & Rusidah, 2023) through purchase intention (Diventy et al., 2020). Further analysis indicates that the indirect effect remains statistically significant only at low and moderate levels of brand recall, whereas it becomes statistically insignificant at higher levels. This pattern suggests that the mediating role of purchase intention is most salient when consumers possess limited or moderate brand memory, highlighting an attenuating influence of brand

recall on the mediation process. From the perspective of the ELM, the results suggest that when brand recall is low, consumers – lacking readily accessible brand cues – engage in central-route processing of digital marketing messages, carefully evaluating product information. Under such conditions, purchase intention functions as a critical psychological mechanism translating marketing exposure into actual purchasing behavior. By contrast, although the indirect effect weakens at higher levels of brand recall, the absence of statistical significance suggests that intention-based processing becomes less central rather than definitively replaced, and therefore theoretical interpretation should be made cautiously. Overall, this study extends the ELM in the digital marketing context by demonstrating that the effectiveness of intention-based persuasion depends on consumers’ low level of brand recall. The results provide empirical support for the view that information-processing routes are context-sensitive rather than fixed, contributing new evidence to ongoing discussions regarding the dynamic interplay between central and peripheral processing mechanisms (Kitchen et al., 2014).

The findings of this study also offer a practical framework for marketers and brand managers, highlighting the importance of assessing consumers’ level of brand recall as a prerequisite for designing effective digital marketing strategies. The

results demonstrate that a standardized “one-size-fits-all” approach is insufficient; instead, strategies must be tailored to the brand’s cognitive position in consumers’ minds. For brands with low brand recall, managers should prioritize central-route processing by developing informative and educational digital content that enhances brand recognition and communicates product value to stimulate purchase intention. Strategic emphasis on content marketing, brand storytelling, and search engine optimization can provide consumers with the detailed information necessary to foster favor-

able attitudes and subsequent purchase intentions. In contrast, when brand recall is high, digital marketing may rely more on peripheral cues that facilitate quicker purchase decisions without extensive cognitive elaboration. In such cases, marketers may emphasize visually appealing content, trusted reviews, and time-sensitive promotions to reinforce existing brand memory and encourage timely action. This strategic shift – from building purchase intention to facilitating immediate responses – may enhance the efficiency of digital marketing initiatives for well-established brands.

CONCLUSION

This study set out to provide a deeper understanding of how and under what conditions digital marketing campaigns influence consumers’ purchase decisions in e-commerce contexts. By developing and empirically testing a moderated mediation framework that integrates digital marketing campaigns, purchase intention, and brand recall, the research moves beyond direct-effect explanations and offers a more comprehensive account of the mechanisms underlying digital marketing effectiveness. Grounded in TPB and ELM theories, the study highlights the importance of considering both motivational and cognitive factors in explaining consumer decision-making.

The findings demonstrate that digital marketing campaigns exert a significant positive effect on purchase decisions, with purchase intention serving as a central mediating mechanism. Moreover, the results reveal that brand recall conditions the strength of this indirect effect in a manner consistent with the information-processing logic of the ELM, thereby shaping how consumers translate marketing exposure into actual purchasing behavior. Collectively, these findings contribute to a more refined theoretical understanding of digital consumer behavior and offer valuable insights for practitioners seeking to design more effective digital marketing strategies in increasingly competitive e-commerce environments.

This study is not without limitations, which opens avenues for future research. A key limitation lies in the reliance on a self-reported survey to measure brand recall. Although this method is widely adopted, it remains vulnerable to recall bias and subjective interpretation, potentially affecting the robustness of the findings. Future studies could address this concern by adopting experimental designs to more precisely establish the causal effects of brand recall within digital marketing contexts.

Moreover, this study focused specifically on the early stage of brand knowledge – brand recall – to investigate its moderating role under the ELM framework. While this approach provides novel insights, it represents a narrow conceptualization of brand equity. Future research should adopt a more comprehensive perspective by incorporating broader dimensions of brand equity, such as perceived quality, brand associations, and brand loyalty. Examining how these multifaceted constructs interact with ELM processing routes would yield a more nuanced understanding of consumer behavior and generate richer theoretical and managerial implications.

AUTHOR CONTRIBUTIONS

Conceptualization: Nguyen Thi Thanh Thuy, Nguyen Thi Thanh Van.

Data curation: Nguyen Thi Thanh Thuy.

Formal analysis: Nguyen Thi Thanh Thuy, Nguyen Thi Thanh Van.

Funding acquisition: Nguyen Thi Thanh Thuy, Nguyen Thi Thanh Van.
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 Validation: Nguyen Thi Thanh Thuy
 Visualization: Nguyen Thi Thanh Van.
 Writing – original draft: Nguyen Thi Thanh Thuy, Nguyen Thi Thanh Van.
 Writing – review & editing: Nguyen Thi Thanh Van.

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