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The Role of Digital Marketing, Direct Marketing, and Personal Selling as Determinants of Purchasing Decisions Mediated by Consumer Behavior for Health Therapy Products

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Abstract

This study was conducted because purchasing decisions for health therapy products involve a high-risk decision-making process influenced not only by digital promotion but also by consumer education, trust, and direct interaction. Consequently, the effectiveness of marketing channels both digital and face-to-face has not been comprehensively explained in prior studies. This research aims to analyze the effects of digital marketing, direct marketing, and personal selling on purchasing decisions for health therapy products, with consumer behavior as a mediating variable. The study was conducted from November to December 2025 using a quantitative approach with Partial Least Squares–Structural Equation Modeling (PLS-SEM) and involved 254 respondents in DKI Jakarta. The research instrument was developed based on theoretical and empirical indicators from studies published between 2022 and 2025, and sampling was performed purposively. The results indicate that digital marketing, direct marketing, and personal selling have positive and significant effects on consumer behavior, which subsequently influences purchasing decisions. Consumer behavior is also proven to mediate the relationship between marketing strategies and purchasing decisions, affirming the role of internal psychological mechanisms. The study concludes that integrated cross-channel marketing approaches are more effective than single-channel strategies. The study is limited to the geographic area of DKI Jakarta and focuses on marketing communication, without considering other external factors. This research reinforces the Theory of Planned Behavior (TPB) and provides practical recommendations for companies to design synergistic and adaptive marketing strategies.

Keywords: *Digital marketing, direct marketing, personal selling, consumer behavior, purchasing decisions, health therapy products*

1. Introduction

Consumer purchasing decisions for health therapy devices have shown a significant increase in recent years, driven by the rise of two major marketing streams: digital marketing and face-to-face marketing ((APJII, 2024); (GlobalData, 2025)). The growth of digital channels is supported by Indonesia's internet penetration, which reached 221.6 million users or 79.5% of the population in 2024, enabling promotional and transactional processes through social media, search engines, and e-commerce platforms (APJII, 2024). In the same year, Indonesia's e-commerce transaction value reached approximately US$65 billion, driven by the emergence of video commerce that combines viewing, interaction, and purchasing (e-Conomy SEA, 2024). These developments allow consumers to assess the perceived benefits and risks of health therapy devices through digital promotional content, particularly in the awareness and alternative evaluation stages (PulsePoint, 2025).

Despite the expansion of digital marketing, face-to-face marketing remains highly relevant because health therapy devices are perceived as high-risk products that require education and live demonstrations before consumers make a purchase decision (Munawaroh & Nurbawani, 2024). In health-related product categories, consumers tend to seek clinical evidence, safety assurances, certifications, and technical consultation prior to purchasing, making personal selling and direct marketing strategies persistently relevant ((Namsa, 2025); (Linder, 2025); (McConville, 2025); (Arunyanart & Khumpang, 2025)). On the demand side, household spending for health products has also increased,

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with approximately 7.36% allocated to health therapy devices in 2023. The national market value reached US$4.78 billion in the same year and is projected to grow by 9–10% annually (KenResearch, 2025).

The marketing variables that influence purchase decisions for health therapy devices in this context include digital marketing, direct marketing, personal selling, consumer behavior, product quality, and price each shaping consumers' perceptions of product benefits and risks ((Solihin et al., 2023); (Tian et al., 2025); (Laventhal, 2025); (Pramanik et al., 2025); (Serrin, 2025)). To reinforce the phenomenon, a preliminary survey was conducted with 35 users of health therapy devices. Figure 1.1 presents the initial survey regarding factors that influence purchase decisions.

Figure 1.1 Preliminary Survey Results on the Most Influential Factors Affecting Purchasing Decisions for Health Therapy Devices

Source: Google Form

The survey results show that the four most influential factors in purchasing decisions are personal selling (97.1%), digital marketing (85.7%), direct marketing (82.9%), and consumer behavior (68.6%). These findings indicate that consumers are not only influenced by digital channels but also by interpersonal interactions that build trust, provide product education, and enable value negotiation. This aligns with the nature of health therapy devices, which require technical explanation and therapeutic validation before a purchase decision is made.

Despite the rapid growth of digital marketing, not all digital strategies are able to explain the psychological mechanisms that lead consumers toward purchasing decisions. Several health device companies invest heavily in digital marketing; however, its effectiveness is often suboptimal because it is not accompanied by face-to-face education and does not account for consumer attitude–behavior processes (Oktarena & Efendi, 2024). In contrast, face-to-face marketing such as personal selling has high conversion capability but low scalability in terms of cost and distribution. This creates an effectiveness gap across marketing channels in influencing purchasing decisions, particularly for high-risk products.

The first empirical fact is reflected in the implementation of online trade regulations through the Ministry of Trade Regulation No. 31/2023, which prohibits direct transactions on social-commerce platforms, reshaping consumer purchasing flow and forcing firms to revise marketing strategies (Muna & Santoso, 2024). Second, prior studies found that information quality and brand reputation mediate consumer purchasing decisions for medical products (Pramanik et al., 2025). Third, market data indicate increasing consumer demand for technical information regarding health therapy devices, particularly related to safety, certification, and therapeutic efficacy (Namsa, 2025; Linder, 2025).

This phenomenon can be explained through three theoretical frameworks: (1) the Theory of Planned Behavior (TPB), which states that decisions are shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991); (2) the Stimulus–Organism–Response (S-O-R) framework, which explains how marketing stimuli influence consumers' psychological states before producing purchasing responses (Mehrabian & Russell, 1974); and (3) Integrated Marketing Communication (IMC), which emphasizes the strategic role of digital, direct, and interpersonal channels in shaping decisions (Kyguolienė & Juknė, 2023).

Prior research has found that personal selling significantly affects purchasing decisions for health products ((Trinh et al., 2025); Kyguolienė & Juknė, 2023). Other studies report that direct marketing influences information search and purchase intention (Cristy et al., 2025). Studies on product quality and price demonstrate their effects on perceived benefits and purchase decisions (Solihin et al., 2023; Tian et al., 2025; Laventhal, 2025). However, most of these studies: (1) only tested direct effects, (2) did not employ consumer behavior as a mediating variable, (3) were not conducted in the context of household health therapy devices, and (4) did not examine omnichannel phenomena across digital–direct–interpersonal interfaces. Thus, the novelty of this study lies in the simultaneous examination of digital marketing, direct marketing, and personal selling with consumer behavior as a mediating variable within the context of health therapy devices.

This research is important theoretically, as it enriches health marketing literature through the integration of IMC–TPB–S-O-R in a therapeutic product context; practically, as it helps firms allocate marketing budgets toward the most influential channels; and industrially, as it provides strategic insights for a rapidly growing and high-perceived-risk health therapy device market.

Based on the above background, this study aims to analyze the influence of digital marketing, direct marketing, and personal selling on purchasing decisions for health therapy devices, with consumer behavior as a mediating variable.

2. Research Elaboration

The growing demand for health therapy devices indicates that consumer purchasing decisions are determined by the interaction of multiple marketing channels such as digital marketing, direct marketing, and personal selling ((APJII, 2024; e-Conomy SEA, 2024; Muna & Santoso, 2024)). Digital channels play an important role in the information search and evaluation stages, where social media, educational

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content, and e-commerce platforms effectively reduce information asymmetry and increase consumer awareness (PulsePoint, 2025). However, for high-perceived-risk products such as health therapy devices, consumers also require direct education, face-to-face demonstrations, and interpersonal consultations before making a purchase decision, making personal selling and direct marketing remain relevant despite the increased digitalization of marketing ((Namsa, 2025; Linder, 2025; McConville, 2025; Arunyanart & Khumpang, 2025)).

In the context of health product marketing, previous studies have largely examined the effectiveness of each marketing channel in isolation. Research on digital marketing found that digital strategies can increase consumer interest and purchase decisions for health-related products ((Sitti & Karlina, 2022); (Wardaya et al., 2024)). Other studies reported that personal selling contributes to building consumer trust and confidence due to its persuasive interpersonal nature (Trinh et al., 2025; Kyguolienė & Juknė, 2023). Meanwhile, direct marketing has been shown to strengthen purchase intention through personalized communication aligned with consumer needs ((Putri et al., 2025); (Sembiring & Andre Yanta, 2024)). These findings reinforce the argument that the three marketing channels operate through distinct mechanisms and may complement one another in influencing consumer purchasing decisions.

Nevertheless, the literature presents a conceptual gap because most studies investigate digital marketing or personal selling separately, without considering the omnichannel configuration through which consumers typically combine digital information consumption with direct consultations before purchasing health therapy devices ((Selvaraj, 2025); (Abdul Halim et al., 2024)). In addition, a theoretical gap remains because prior research has not explained the psychological mechanisms connecting marketing stimuli to purchasing decisions, despite behavioral models such as TPB and S-O-R indicating the presence of cognitive–affective processing before behavioral outcomes ((Ajzen, 1991); (Mehrabian & Russell, 1974)).

An empirical gap also appears because most studies examine the direct effects of marketing strategies on purchasing decisions without incorporating consumer behavior as a mediating variable that explains how marketing stimuli are translated into purchasing behavior (Oktarena & Efendi, 2024). In the context of health products, consumers typically engage in information search, benefit evaluation, risk analysis, and technical consultation before purchasing, making consumer behavior a key determinant of decision-making ((Schiffman & Wisenblit, 2019); (Kotler et al., 2021)). Previous studies have shown that consumer behavior affects purchasing decisions for health products; however, such studies have not been conducted within the context of homecare health therapy devices, which are characterized by high perceived risk and long-term usage (Putri & Suryadi, 2022). Therefore, this study addresses the empirical gap by introducing consumer behavior as a mediating variable between digital marketing, direct marketing, and personal selling and purchasing decisions.

Conceptually, digital marketing, direct marketing, and personal selling can be positioned as stimuli within the S-O-R model that influence the organism, represented by consumer behavioral processes, before generating a behavioral response in the form of purchasing decisions (Mehrabian & Russell, 1974). At the same time, TPB explains how attitudes, subjective norms, and perceived behavioral control may be shaped by exposure to marketing stimuli, ultimately influencing purchasing decisions through behavioral mediation (Ajzen, 1991). The integration of these theoretical perspectives provides an argumentative basis that consumer behavior functions as a psychological mechanism linking marketing stimuli to purchasing decisions.

Given these conceptual, theoretical, and empirical gaps, the present study offers three forms of novelty: (1) variable novelty, by incorporating consumer behavior as a mediating variable in health therapy device marketing models; (2) contextual novelty, by examining homecare health therapy device products characterized by distinct purchasing dynamics; and (3) methodological novelty, by simultaneously examining three marketing channels (digital–direct–interpersonal) within a single IMC and S-O-R based model.

Theoretically, this study contributes to expanding the health marketing literature through an integrative consumer behavior approach, while practically it supports industry actors in designing more effective marketing resource allocation strategies based on the channels that most strongly drive consumer purchasing of high-perceived-risk health therapy devices.

3. Results or Findings

This study employed a quantitative approach with an associative causal research design to analyze the influence of digital marketing, direct marketing, and personal selling on purchasing decisions through consumer behavior as a mediating variable (Handiman & Siswanti, 2025). Data were collected between November and December 2025 in the DKI Jakarta area using a structured questionnaire developed from empirical indicators obtained from studies conducted between 2022 and 2025 (Handiman & Siswanti, 2025). The sample was determined using a purposive sampling technique with respondents who had purchased and used health therapy devices ((Sugiyono, 2022); (Handiman & Siswanti, 2025)). The population was unknown; therefore, it was categorized as an infinite population (Sugiyono, 2022).

The sample size was determined using the rule of thumb for Structural Equation Modeling (SEM), which recommends 5–10 respondents per indicator (J. F. Hair et al., 2017). This study employed 48 indicators, thus the minimum required sample size was calculated as follows:

$$n=5\times48=240$$

The final dataset consisted of 254 respondents, exceeding the minimum requirement and fulfilling SEM adequacy criteria (Handiman & Siswanti, 2025). Primary data were obtained

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through a Google Form distributed via WhatsApp to consumers of health therapy devices in the DKI Jakarta region (Handiman & Siswanti, 2025). The questionnaire used a 5-point Likert scale to measure indicators for digital marketing, direct marketing, personal selling, consumer behavior, and purchasing decisions (Handiman & Siswanti, 2025).

Data analysis was conducted using Partial Least Squares – Structural Equation Modeling (PLS-SEM), which is suitable for analyzing latent variable relationships and mediation effects (J. Hair & Alamer, 2022). The analysis consisted of two stages: (1) assessment of the outer model to evaluate convergent validity, discriminant validity, and reliability. (2) assessment of the inner model to evaluate path coefficients, significance levels, p-values, and mediating effects. Hypothesis testing was performed based on p-values and t-statistics obtained through bootstrapping in SmartPLS 4 (J. Hair & Alamer, 2022). All proposed hypotheses were reflected in the conceptual model illustrating the relationships among the variables analyzed in this study, as depicted in the research framework.

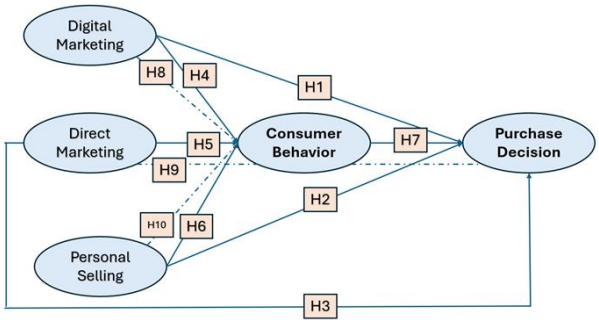

Figure 3.1. Conceptual Framework of the Study

Source: Processed Data (2025)

3.1 Demographic Characteristics of Respondents

Before conducting hypothesis testing, this study first describes the demographic characteristics of the respondents to provide contextual information regarding the sample profile.

Table 3.1 Demographic Characteristics of Respondents (N = 254)

Category	Frequency	Percentage (%)
Gender		
Male	88	35
Female	166	65
Age (years)		
25–34	52	20
35–44	97	38
45–54	74	29
55–64	26	10
≥ 65	5	2
Domicile		
DKI Jakarta	254	100
Education		
High School (SMA/SMK)	1	0.4
Diploma (D1–D3)	57	22
Bachelor (S1)	119	47
Master (S2)	54	21
Doctor (S3)	22	9
Occupation		
Private Employee	87	34
State-Owned Enterprise Employee	56	22
Entrepreneur	45	18
Civil Servant (PNS/ASN)	37	15
Housewife	21	8
Others	8	3
Monthly Income		
< IDR 5,000,000	19	7
IDR 5,000,001–7,000,000	61	24
IDR 7,000,001–10,000,000	102	40
IDR 10,000,001–15,000,000	48	19
> IDR 15,000,000	24	9
Product Information Source		
Social Media	82	32
Friends/Relatives	58	23
Exhibitions/Direct Promo	51	20
Marketplace	37	15
Doctors/Therapists	26	10
Duration of Product Usage		
< 3 months	16	6
3–6 months	43	17

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Category	Frequency	Percentage (%)
7–12 months	42	17
1–2 years	89	35
> 2 years	64	25
Type of Therapy Product Used		
Massage therapy device	39	15
Heat therapy (infrared/heating)	36	14
Health bracelets	32	13
Negative-ion therapy flashlight	31	12
Germanium pillow	27	11
Ion socks	23	9
Magic germanium stick roll	22	9
Germanium necklace	21	8
Oxygen therapy device	15	6
Vibration therapy device	8	3

Source: Google Form

The demographic results indicate that most respondents are female (65%) and predominantly in the 35–44 age group (38%), followed by those aged 45–54 (29%), suggesting that middle-aged consumers show the highest interest in health therapy products. All respondents are based in DKI Jakarta and are generally well-educated, with nearly half holding a bachelor's degree (47%). In terms of occupation, private sector employees (34%) and state-owned enterprise employees (22%) comprise the largest segments, and 40% of respondents earn between IDR 7,000,001–10,000,000 per month, indicating sufficient purchasing power for non-essential wellness products. Social media is the most dominant information source (32%), highlighting the influence of digital channels in shaping consumer awareness and purchase decisions. Furthermore, product usage patterns show sustained adoption, with 35% using therapy devices for 1–2 years and 25% for more than two years. Massage therapy devices (15%), heat therapy tools (14%), and health bracelets (13%) are the most frequently used product types, reflecting diverse preferences in alternative therapy solutions.

3.2 Outer Model Evaluation

3.2.1Outer Loading Test

The analysis began with the outer loading test, which evaluates the contribution of each indicator to its respective latent construct.

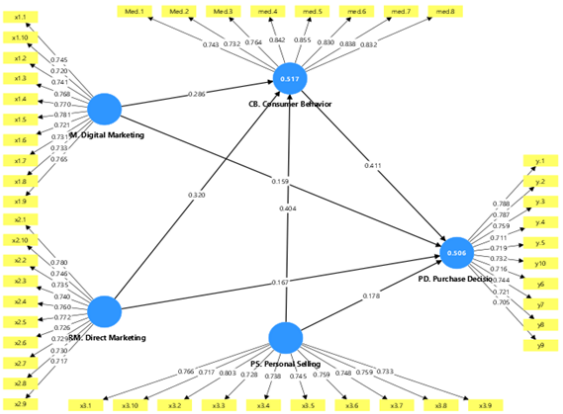

Figure 3.2 Outer Loading Diagrams

Source: Statistical Data Processing

Table 3.2 Outer Loading

	CB. Consumer Behavior	DM. Digital Marketing	DRM. Direct Marketing	PD. Purchase Decision	PS. Personal Selling
CB.1	0.743				
CB.2	0.732				
CB.3	0.764				
CB.4	0.842				
CB.5	0.855				
CB.6	0.830				
CB.7	0.838				
CB.8	0.832				
DM.1		0.745			
DM.10		0.720			
DM.2		0.741			
DM.3		0.768			
DM.4		0.770			
DM.5		0.781			
DM.6		0.721			
DM.7		0.731			
DM.8		0.733			
DM.9		0.765			
DRM.1			0.780		
DRM.10			0.746		
DRM			0.735		

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	CB. Consumer Behavior	DM. Digital Marketing	DRM. Direct Marketing	PD. Purchase Decision	PS. Personal Selling
.2					
DRM.3			0.740		
DRM.4			0.760		
DRM.5			0.772		
DRM.6			0.726		
DRM.7			0.729		
DRM.8			0.730		
DRM.9			0.717		
PS.1					0.766
PS.10					0.717
PS.2					0.803
PS.3					0.728
PS.4					0.738
PS.5					0.745
PS.6					0.759
PS.7					0.748
PS.8					0.759
PS.9					0.733
PD.1				0.788	
PD.2				0.787	
PD.3				0.759	
PD.4				0.711	
PD.5				0.719	
PD.10				0.732	
PD.6				0.716	
PD.7				0.744	
PD.8				0.721	
PD.9				0.705	

Source: Statistical Data Processing

The outer loading results indicate that all indicators for the constructs of Consumer Behavior, Digital Marketing, Direct Marketing, Personal Selling, and Purchase Decision exhibit satisfactory convergent validity, as the loading values exceed the recommended minimum threshold of 0.70 for reflective measurement models. Specifically, the Consumer Behavior indicators demonstrate strong loadings ranging from 0.732 to 0.855, while Digital Marketing shows consistent loadings between 0.720 and 0.781. Similarly, Direct Marketing indicators fall between 0.717 and 0.780, and Personal Selling indicators range from 0.717 to 0.803, indicating solid contributions to their respective latent constructs. The Purchase Decision indicators also meet the validity criteria with loadings from 0.705 to 0.788. These results confirm that all items function adequately in representing their constructs and that the measurement model fulfills the requirements for convergent validity at the indicator level.

3.2.2Composite Validity and Reliability Results

To further assess the adequacy of the measurement model, composite validity and reliability tests were conducted to evaluate the internal consistency and construct validity of all latent variables within the study.

Table 3.2 Composite Validity and Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
CB. Consumer Behavior	0.924	0.938	0.937	0.649
DM. Digital Marketing	0.913	0.914	0.927	0.559
DRM. Direct Marketing	0.910	0.912	0.925	0.553
PD. Purchase Decision	0.908	0.913	0.923	0.546
PS. Personal Selling	0.914	0.916	0.928	0.563

Source: Statistical Data Processing

The results of the composite validity and reliability assessment indicate that all latent constructs meet the

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recommended psychometric criteria. Cronbach's Alpha values range from 0.908 to 0.924, while composite reliability coefficients (rho_c) range from 0.923 to 0.937, exceeding the minimum threshold of 0.70, demonstrating strong internal consistency across all constructs. In addition, the Average Variance Extracted (AVE) values range between 0.546 and 0.649, surpassing the recommended minimum of 0.50, which confirms adequate convergent validity. These results suggest that the measurement indicators reliably capture their respective constructs, indicating that the measurement model is both reliable and valid for subsequent structural analysis.

3.2.3Discriminant Validity Results

To further assess the measurement model, discriminant validity was examined to determine the extent to which each construct is empirically distinct from the others. The results are presented in Table 3.2.3 below.

Table 3.3 Discriminant Validity Results

	CB. Consumer Behavior	DM. Digital Marketing	DRM. Direct Marketing	PD. Purchase Decision	PS. Personal Selling
CB. Consumer Behavior					
DM. Digital Marketing	0.480				
DRM. Direct Marketing	0.526	0.305			
PD. Purchase Decision	0.691	0.463	0.504		
PS. Personal Selling	0.576	0.228	0.286	0.514	

Source: Statistical Data Processing

The discriminant validity results in Table 3.2.3 indicate that each construct is empirically distinct from one another, as reflected by the cross-correlation values that remain below the recommended threshold of 0.85. The strongest associations are observed between Consumer Behavior and Purchase Decision (r = 0.691), as well as between Personal Selling and Consumer Behavior (r = 0.576), suggesting that interpersonal engagement and behavioral responses are closely intertwined within the purchasing context. Meanwhile, Digital Marketing shows comparatively weaker correlations with both Direct Marketing (r = 0.305) and Personal Selling (r = 0.228), reinforcing that digital-based channels operate through different interaction mechanisms than direct and interpersonal channels. Overall, the results confirm that the constructs do not exhibit multicollinearity, thereby supporting adequate discriminant validity in the measurement model.

3.3 Structural Model Evaluation

3.3.1R-Square Test

In order to assess the predictive power of the structural model, an R-square (R^2) analysis was conducted on the endogenous constructs to determine the proportion of variance explained by the predictor variables.

Table 3.3.1 R-Square Test

	R-square	R-square adjusted
CB. Consumer Behavior	0.517	0.511
PD. Purchase Decision	0.506	0.498

Source: Statistical Data Processing

The R-square test results indicate that the model demonstrates moderate explanatory power. Consumer Behavior achieved an R-square value of 0.517, meaning that 51.7% of its variance can be explained by the predictor marketing variables in the model, while the adjusted R-square of 0.511 confirms the model's stability after accounting for the number of predictors. Similarly, Purchase Decision obtained an R-square value of 0.506, indicating that 50.6% of the variance in purchasing decisions is explained by Consumer Behavior and the marketing variables, with the adjusted R-square of 0.498 demonstrating minimal loss of explanatory power after model adjustment. These findings suggest that the model has adequate predictive relevance, as more than half of the variance in both endogenous constructs is successfully explained by their respective predictors.

3.3.2F-Square Test

To further assess the strength of the structural relationships between constructs, the study employed the F-square (f^2) test, which evaluates the effect size contributed by each exogenous variable in explaining the variance of the endogenous constructs.

Table 3.3.2 F-Square Test

	CB. Consumer Behavior	DM. Digital Marketing	DRM. Direct Marketing	PD. Purchase Decision	PS. Personal Selling

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CB. Consumer Behavior		0 .165
DM. Digital Marketing	0 .153	0 .040
DRM. Direct Marketing	0 .186	0 .042
PD. Purchase Decision		
PS. Personal Selling	0 .307	0 .045

Source: Statistical Data Processing

The F-square test results indicate that several exogenous variables exert varying levels of effect size on the endogenous constructs. Personal Selling demonstrates the strongest contribution to Consumer Behavior ($f^2 = 0.307$), falling within the medium effect category according to Cohen's criteria, while Direct Marketing ($f^2 = 0.186$) and Digital Marketing ($f^2 = 0.153$) contribute medium-to-small effects to Consumer Behavior. Meanwhile, Consumer Behavior itself exerts a medium effect on Purchase Decision ($f^2 = 0.165$), showing its role as an important mediating mechanism in the model. In contrast, the direct effects of Digital Marketing ($f^2 = 0.040$), Direct Marketing ($f^2 = 0.042$), and Personal Selling ($f^2 = 0.045$) on Purchase Decision are categorized as small, suggesting that purchase decisions are more strongly shaped indirectly through changes in consumer behavior rather than through direct exposure to marketing stimuli.

3.4 Hypothesis Testing

3.4.1Direct hypotheses

To assess the direct effects between the studied variables, hypothesis testing was performed using the structural model. The results of the direct hypothesis testing are presented in Table 3.4.1.

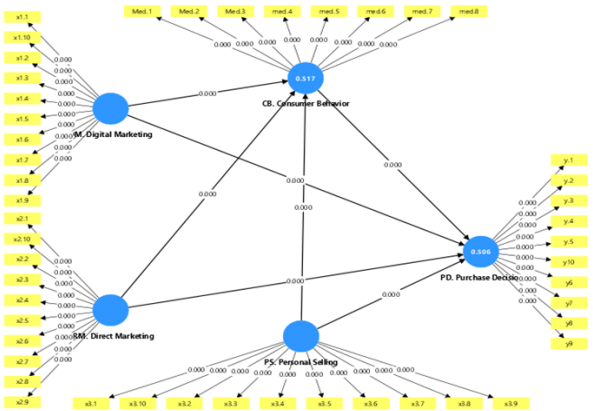

Figure 3.4.1 Path Coefficients Diagrams

Source: Statistical Data Processing

Table 3.4.1 Direct hypotheses

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
CB. Consumer Behavior -> PD. Purchase Decision	0.411	0.411	0.060	6.875	0.000
DM. Digital Marketing -> CB. Consumer Behavior	0.286	0.285	0.043	6.659	0.000
DM. Digital Marketing -> PD. Purchase Decision	0.159	0.161	0.045	3.517	0.000
DRM. Direct Marketing -> CB. Consumer Behavior	0.320	0.319	0.048	6.737	0.000
DRM. Direct Marketing -> PD. Purchase Decisio	0.167	0.168	0.047	3.566	0.000

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	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
n					
PS. Personal Selling -> CB. Consumer Behavior	0.404	0.403	0.037	10.825	0.000
PS. Personal Selling -> PD. Purchase Decision	0.178	0.181	0.048	3.685	0.000

Source: Statistical Data Processing

The results of the direct effect testing indicate that all proposed direct hypotheses are supported. Personal Selling exhibits the strongest effect on Consumer Behavior ($\beta = 0.404$; $p < 0.001$), followed by Direct Marketing ($\beta = 0.320$; $p < 0.001$) and Digital Marketing ($\beta = 0.286$; $p < 0.001$), demonstrating that interpersonal and direct communication channels play a substantial role in shaping consumer behavioral responses prior to purchase. Consumer Behavior also significantly predicts Purchase Decision ($\beta = 0.411$; $p < 0.001$), confirming its relevance as an internal psychological mechanism in the decision-making process. Additionally, Digital Marketing, Direct Marketing, and Personal Selling each show significant direct effects on Purchase Decision ($\beta = 0.159$; $\beta = 0.167$; $\beta = 0.178$; $p < 0.001$), suggesting that marketing stimuli influence purchase choices not only indirectly through consumer behavior but also through direct evaluative pathways. These findings collectively confirm that multi-channel marketing strategies are effective in influencing consumer decision formation in the context of health therapy products.

3.4.2Indirect (Mediation) Hypotheses

To examine the mediating role of Consumer Behavior in the structural model, the study further tested the indirect effects (mediation hypotheses) linking digital marketing, direct marketing, and personal selling to purchase decision through consumer behavior.

Table 3.4.2 Indirect (Mediation) Hypotheses

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
DM. Digital Marketing -> CB. Consumer Behavior -> PD. Purchase Decision	0.117	0.117	0.023	5.008	0.000
DRM. Direct Marketing -> CB. Consumer Behavior -> PD. Purchase Decision	0.131	0.131	0.028	4.635	0.000
PS. Personal Selling -> CB. Consumer Behavior -> PD. Purchase Decision	0.166	0.166	0.029	5.766	0.000

Source: Statistical Data Processing

The results indicate that consumer behavior significantly mediates the effects of digital marketing, direct marketing, and personal selling on purchase decision. The mediation path from digital marketing to purchase decision through consumer behavior yielded a coefficient of 0.117 with a t-value of 5.008

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(p = 0.000), demonstrating a significant indirect effect. Likewise, direct marketing also showed a significant indirect effect on purchase decision through consumer behavior (β = 0.131; t = 4.635; p = 0.000). Personal selling exhibited the strongest mediating effect among the three channels, with a coefficient of 0.166 and a t-value of 5.766 (p = 0.000). These findings suggest that consumer behavior functions as a key psychological mechanism translating marketing stimuli into purchasing actions, confirming full mediation support across all proposed indirect hypotheses.

3.5 Discussions

H1 – Digital Marketing affects Consumer Behavior

This study shows that digital marketing exerts a positive influence on consumer behavior, thus supporting H1. The result addresses the phenomenon identified in the introduction that purchasing decisions for health therapy devices are increasingly preceded by digital information-seeking, testimonial evaluation, and content observation before the transaction occurs. This implies that digital channels do not merely enhance awareness but also reshape how consumers process product benefits, assess risks, and evaluate therapeutic value. Theoretically, this finding aligns with the S–O–R model, in which digital marketing exposure functions as a stimulus that affects the organism through the formation of attitudes and perceptions prior to behavioral responses. It also supports the Theory of Planned Behavior, where attitudes and perceived behavioral control act as determinants of behavioral tendencies as a result of informational availability that enhances decision-making capacity. Prior studies by Wardaya et al. (2024) and Sitti and Karlina (2022) similarly found that digital marketing encourages consumers to conduct active evaluation of health-related products before purchasing, reinforcing the consistency of this empirical outcome.

H2 – Direct Marketing affects Consumer Behavior

The findings indicate that direct marketing has a positive influence on consumer behavior, supporting H2. This result answers the issue raised in the introduction regarding the need for consumers of health therapy products to receive detailed product explanations, demonstrations, and clarifications before making an informed evaluation of product benefits and potential risks. Direct marketing facilitates interpersonal clarification and allows consumers to verify claims through direct consultation. From a theoretical standpoint, this finding aligns with the S–O–R framework, where direct interaction functions as an external stimulus that shapes the organism's cognitive and affective responses before behavioral action. It is also consistent with the Theory of Planned Behavior, whereby persuasive informational exchanges enhance perceived behavioral control and strengthen favorable attitudes toward the product. Previous research by Putri et al. (2025) and Sembiring & Andre Yanta (2024) similarly found that direct marketing promotes deeper information processing and motivates consumers to assess health-related products more intensively, reinforcing its relevance in shaping consumer behavior.

H3 – Personal Selling affects Consumer Behavior

The study confirms that personal selling significantly influences consumer behavior, supporting H3. This finding addresses the observed phenomenon in the introduction that buyers of health therapy devices often rely on interpersonal interaction to reduce uncertainty and validate the therapeutic value of a product. Personal selling enables tailored explanations, testimonials, and demonstrations, which help consumers interpret product functionality and align it with personal health goals. In theoretical terms, this reinforces the S–O–R mechanism, where interpersonal persuasion acts as a stimulus that elicits cognitive and affective responses conducive to behavioral engagement. It is also consistent with TPB, where personal interaction facilitates subjective norms through social influence and enhances perceived control through guided instruction. This finding aligns with studies by Trinh et al. (2025) and Kyguolienė & Juknė (2023), which reported that personal selling encourages deeper engagement and increases consumers' willingness to consider health-related purchases.

H4 – Consumer Behavior affects Purchase Decision

The results demonstrate that consumer behavior positively influences purchase decision, supporting H4. This outcome directly responds to the research problem stating that consumers of health therapy products do not decide instantly but proceed through stages of evaluation involving perceived utility, safety considerations, and value assessment. From a TPB perspective, behavior reflects the culmination of attitude formation, normative pressure, and perceived control, which ultimately translates into purchasing action. Meanwhile, the S–O–R model positions behavior as a mediating organism state that converts marketing stimuli into decision outcomes. Previous findings by Putri & Suryadi (2022) and scholars in healthcare-related consumption contexts have similarly reported that final purchase decisions emerge only after consumers process informational cues and compare product benefits against perceived risks.

H5 – Digital Marketing affects Purchase Decision

The study confirms that digital marketing has a significant direct effect on purchase decision, supporting H5. This result addresses the consumer phenomenon described earlier where digital platforms increasingly serve as trusted sources for information verification, content-based persuasion, and exposure to product reviews in the health therapy market. From an S–O–R standpoint, digital marketing serves as a stimulus that accelerates decision-making by reducing informational asymmetry. Within TPB, digital marketing strengthens attitudes toward the product by supplying credible information that increases evaluative certainty. This finding corresponds with the work of Wardaya et al. (2024) and Sitti & Karlina (2022), who found that digital engagement encourages purchase behavior in consumer health domains by improving informational transparency.

H6 – Direct Marketing affects Purchase Decision

The results show that direct marketing influences purchase decisions, supporting H6. This finding reflects the fact that buyers of health therapy devices require confidence in the

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product's therapeutic safety and effectiveness before committing to purchase, and direct marketing provides such reassurance through trial-based exposure and two-way communication. Theoretically, direct marketing is consistent with IMC principles, which emphasize the role of personal relevance and message customization in converting consumer evaluations into transactional outcomes. Prior studies by Cristy et al. (2025) and Putri et al. (2025) found that direct marketing enhances intention and purchase commitment by providing product-specific information tailored to consumer needs.

H7 – Personal Selling affects Purchase Decision

The study verifies that personal selling has a significant effect on purchase decision, supporting H7. This finding relates to the earlier observation that personal interaction reduces perceived risk in purchasing medical or therapeutic equipment. Through interpersonal persuasion, personal selling fosters trust, strengthens confidence in product usage, and mitigates uncertainty—mechanisms emphasized within the S–O–R framework as precursors to purchasing action. It also aligns with TPB since trust-building enhances subjective norms and perceived control, which subsequently influence decision behaviors. Research by Trinh et al. (2025) and Kyguolienė & Juknė (2023) similarly reported that personal selling increases purchase conversion in health-related contexts due to its ability to rationalize and validate consumer concerns.

H8 – Digital Marketing mediated by Consumer Behavior affects Purchase Decision

The results show that consumer behavior mediates the relationship between digital marketing and purchase decision, supporting H8. This indicates that digital promotion does not instantly lead to purchase, but works through cognitive evaluation, information seeking, and benefit assessment before a decision emerges. This mechanism aligns with TPB, which positions behavioral processing as an intermediary stage linking external stimuli with decision outcomes. Studies by Wardaya et al. (2024) and Sitti & Karlina (2022) similarly found that digital channels influence purchase decisions through changes in consumer evaluative patterns rather than immediate transactional triggers.

H9 – Direct Marketing mediated by Consumer Behavior affects Purchase Decision

The findings confirm that consumer behavior mediates the relationship between direct marketing and purchase decision, supporting H9. This suggests that informational engagement facilitated by direct marketing must first shape consumers' cognitive and affective responses before influencing their purchasing decision, consistent with S–O–R and IMC frameworks. Research by Cristy et al. (2025) and Putri et al. (2025) reported similar mediating patterns, indicating that direct marketing stimulates consumer evaluation which ultimately drives purchase behavior.

H10 – Personal Selling mediated by Consumer Behavior affects Purchase Decision

The study confirms that consumer behavior mediates the influence of personal selling on purchase decision, supporting H10. This result underscores the importance of persuasion and interpersonal interaction in shaping internal evaluative processes before eventual purchase commitment. The finding aligns with TPB and S–O–R, wherein behavioral formation acts as a bridge between interpersonal stimulus and purchasing outcomes. Prior research by Trinh et al. (2025) and Kyguolienė & Juknė (2023) similarly found that personal selling does not merely trigger immediate purchase, but primarily shapes consumer evaluation leading to subsequent decision enactment.

4. Conclusion

This study demonstrates that digital marketing, direct marketing, and personal selling play a significant role in shaping consumer behavior and ultimately influencing purchasing decisions for health therapy devices. The findings confirm the shift described in the introduction, where consumers increasingly rely on a combination of digital information, interpersonal consultation, and direct promotional encounters before committing to purchase products with perceived functional and health-related risks. Consumer behavior is revealed as a key psychological mechanism that mediates the effect of multiple marketing channels on purchase decision-making, indicating that exposure to promotional stimuli alone is insufficient to drive transactions without cognitive and evaluative processing by consumers.

From a theoretical standpoint, the study reinforces the relevance of the S–O–R framework in explaining how marketing stimuli trigger cognitive and affective processes that precede behavioral responses. The findings also align with the Theory of Planned Behavior, whereby attitudes and perceived behavioral control are shaped through exposure to marketing communications and subsequently translate into behavioral tendencies and purchasing actions. The empirical results extend the marketing literature by showing that health-related product categories, especially those involving perceived performance risks and long-term use, require integrated marketing communication approaches rather than reliance on a single dominant marketing channel.

In practical terms, the study offers strategic implications for industry practitioners, particularly firms operating in the medical and homecare health device market. Companies must allocate marketing resources not only to digital awareness-building but also to interpersonal and direct communication that facilitate consumer learning, reduce uncertainty, and generate confidence. Strengthening consumer behavior variables such as evaluation, information processing, and perceived product utility is essential in converting consumer interest into purchase behavior within this product context. Collectively, these insights highlight the necessity of omnichannel marketing strategies that accommodate both

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digital and interpersonal informational needs to accelerate purchasing decisions for health therapy devices.

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