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DETERMINANTS OF CONSUMER BEHAVIOUR IN DIGITAL MARKETING: A STRUCTURAL ANALYSIS

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Abstract

This paper examines the factors that determine consumer behaviour with regard to digital marketing using a structural equation modeling (SEM) framework. As digital technologies rapidly develop, the ways consumers engage with the digital marketing platforms has gained critical importance to businesses and policymakers. The research questions are as follows: How the key factors, including the perceived usefulness, perceived ease of use, social influence, and trust, influence consumer attitude and purchase intention?The structured questionnaire was used to collect primary data using the sample of respondents and analyze it with the help of SEM techniques SmartPLS. The results reveal that all the selected determinants have a significant positive impact on consumer attitude. Out of them, the trust in digital marketing was the most powerful factor. Moreover, the consumer attitude was observed as a significant influencer on the purchase intention, which makes it a mediator in the relationship between the digital marketing factors and consumer behaviour.The analysis also finds out the partial mediation effects of consumer attitude and significant moderating effects of demographic attributes like age and income. The model has good explanatory and predictive capabilities meaning that it is strong in explaining consumer behaviour in digital settings.The results of this research can be used as a good guide to marketers in their endeavours to design effective digital marketing strategies by placing emphasis on the building of trust, user-friendly websites, and harnessing the power of social influence. The research also adds to the existing literature by applying technologies adoption and consumer behaviour theories in the digital marketing context.

Keywords: Consumer Behaviour, Purchase Intention, Structural Equation Modeling, Trust, Consumer Attitude.

Introduction

Over the last few years, the digital transformation has drastically changed the manner in which businesses relate with consumers. The high rate of penetration of internet, smartphone use, and social media sites have resulted in development of digital marketing as a powerful means of marketing products and services. In contrast to traditional marketing, online marketing provides personalized, interactive and real-time communication and therefore, online marketing enables companies to interact with consumers in a more efficient manner. Due to this, it has become very important to understand consumer behaviour in the digital environment so that organizations can gain a competitive advantage.

There are various technological and psychological factors that affect consumer behaviour in the scenario of digital marketing. Factors like perceived usefulness, perceived ease of use, social influence, trust and so on are critical in influencing consumer attitudes and purchase intentions. According to the Technology Acceptance Model, it is more likely that individuals will adopt a technology when they perceive that technology to be useful and easy to use. Similarly, the Theory of Planned Behaviour highlights the importance of attitude in determining behavioural intention. These theoretical viewpoints

offer a powerful basis on which the consumer reactions to online marketing plans can be analyzed.Moreover, the emergence of social media networks, influencer marketing, and internet reviews has increased the influence of social influence in consumer decision-making. The consumers are progressively using the opinions, ratings and digital content of their peers before making their purchasing decisions. Meanwhile, issues of trust have been raised as a key factor of consumer behaviour in the digital environment due to concerns of privacy, data security, and online fraud. As such, it is not just important that the businesses should offer value and convenience but also foster trust so that they can have continued consumer interest.

Although digital marketing is increasingly becoming important, there is still a need to carry out empirical studies to incorporate various determinants to explain consumer behaviour in a comprehensive way, particularly in emerging economies such as India. The differences in the demographic features of consumers, including age, income, and education, are another factor that determines how consumers perceive and react to the digital marketing initiatives. Therefore, an organized analytical method would be needed to comprehend these connections.

It is on this basis that the current study seeks to test the determinants of consumer behaviour towards digital marketing through a Structural Equation Modeling (SEM) framework. The research is aimed at studying how the perceived usefulness, perceived ease of use, social influence, and trust affect the consumer attitude and purchase intention. The research helps in enhancing the literature in marketing and in the practical knowledge on how marketers can incorporate better digital marketing strategies.

Statement of the Problem

The high rate of growth of digital technologies and online platforms has greatly altered the marketing environment. To deliver the message to consumers, businesses are increasingly using digital marketing techniques like social media marketing, search engine advertising, and influencer promotions. Nevertheless, even with the use of digital marketing across the board, consumer reactions towards these marketing strategies continue to be complicated and diverse.

Among the significant issues encountered by marketers is the knowledge of those factors that determine consumer behaviour in the digital space. Consumers are subjected to large volumes of online information, advertisement and peer opinions which influence their perceptions and decision-making. Other issues that tend to affect the willingness of consumers to interact with digital marketing platforms include lack of trust, privacy issues, perceived risk, and information overload.

According to previous research, perceived usefulness, perceived ease of use, social influence, and trust are some of the factors that have a strong influence on consumer attitudes and purchase intentions. As an example, a study demonstrates that trust is a key factor in affecting online purchase decisions, as well as perceived usefulness and ease of use. Nevertheless, we still do not have any extensive research that would unify these variables into one framework especially in the case of emergent economies such as India.In addition, not every segment exhibits the same consumer behaviour as demographic factors, including age, income, and education, have a role in digital adoption patterns. Thus, it is necessary to have a systematic analysis model that will look at the interplay of technological, psychological and social factors on consumer behaviour towards digital marketing.Therefore, the current research tries to fuse this gap by examining the determinants of consumer behaviour towards digital marketing using a Structural Equation Modeling (SEM) approach.

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Objectives of the Study

1. To examine the influence of perceived usefulness on consumer attitude towards digital marketing.
2. To analyze the impact of perceived ease of use on consumer attitude.
3. To study the effect of social influence on consumer attitude.
4. To evaluate the role of trust in shaping consumer attitude towards digital marketing.
5. To examine the impact of consumer attitude on purchase intention.
6. To analyze the direct effect of trust on purchase intention.
7. To assess the mediating role of consumer attitude between digital marketing determinants and purchase intention.
8. To evaluate the moderating effect of demographic variables (age, gender, income) on consumer behaviour.

Hypotheses of the Study

Direct Relationships

1. H1: Perceived usefulness has a significant positive effect on consumer attitude.
2. H2: Perceived ease of use has a significant positive effect on consumer attitude.
3. H3: Social influence has a significant positive effect on consumer attitude.
4. H4: Trust has a significant positive effect on consumer attitude.
5. H5: Consumer attitude has a significant positive effect on purchase intention.
6. H6: Trust has a significant positive effect on purchase intention.

Mediation Hypotheses

1. H7: Consumer attitude mediates the relationship between perceived usefulness and purchase intention.
2. H8: Consumer attitude mediates the relationship between perceived ease of use and purchase intention.

Moderation Hypotheses

1. H9: Age moderates the relationship between consumer attitude and purchase intention.
2. H10: Income moderates the relationship between consumer attitude and purchase intention.

Literature Review

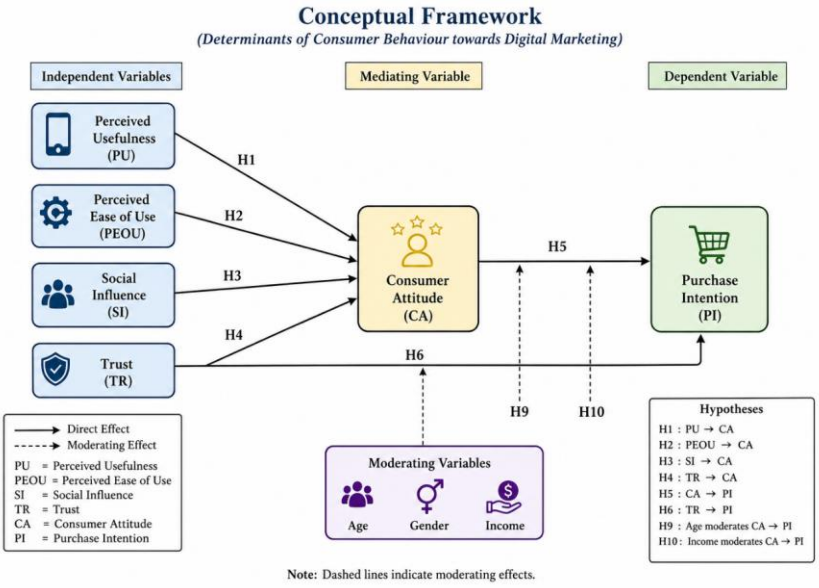
The digital marketing consumer behaviour has been widely researched based on technology adoption and behavioural theories. The Technology Acceptance Model is one of the most powerful frameworks that explain the impact that perceived usefulness and perceived ease of use have on the acceptance of technology by the users. Fred Davis (1989) claimed that people would be more inclined to embrace a system when they feel that it will improve their performance and is simple to operate. A number of empirical studies affirm that they can have a significant influence on consumer attitudes and behavioural intentions in digital settings (Venkatesh& Davis, 2000).Another important determinant of the consumer behaviour in digital marketing is trust. Trust in online settings is one of the determinants of online purchases because in online scenarios, there is no physical contact among the individuals involved in the transaction. According to Jarvenpaa, Tractinsky and Vitale (2000), the perceived trustworthiness of online vendors is an important factor in influencing the willingness of consumers to purchase. On the same note, Gefen, Karahanna and Straub (2003) stressed that trust also lowers the perceived risk and it also increases the intention of the consumer in making an online transaction.

Social influence has been found to be a very important aspect that influences consumer behaviour. The Theory of Planned Behavior, attributed to IcekAjzen (1991) emphasises the fact that behavioural intentions are influenced by the subjective norms and social pressures. Social media communication, peer reviews and influencer endorsements within the digital marketing environment are crucial in influencing consumer perceptions (Kaplan and Haenlein, 2010). Online review and recommendations are also commonly used by consumers to determine the purchase decisions.Recent literature has combined TAM with TPB to give a more comprehensive view of the digital consumer behaviour. The Unified Theory of Acceptance and Use of Technology (UTAUT) that considers social influence and facilitating conditions in addition to the perceived usefulness and ease of use was proposed by Venkatesh et al. (2003). According to empirical evidence, these integrated models are more likely to explain consumer behaviour in digital marketing setting.

Moreover, the consumer attitude has been found as a mediating process between determinants of digital marketing and purchase intention. Fishbein and Ajzen (1975) found that attitude is a key factor in predicting behavioural intention. Research work by Pavlou (2003) and Kim, Ferrin and Rao (2008) affirm that purchase intention is influenced by trust, perception of usefulness and ease of use through consumer attitude.Moreover, demographic characteristics that include age, gender and income have been reported to moderate consumer behaviour in online environments. The younger consumers are more likely to embrace the digital technologies whereas the consumers in higher income groups are more likely to engage in the online purchases (Smith, 2011). These differences show the significance of taking into account demographic features when conducting digital marketing research.

The literature review shows that the main factors that determine consumer behaviour in digital marketing are perceived usefulness, perceived ease of use, trust, and social influence. Although the previous research has been categorized into the study of these variables separately, there is a need to present an integrated framework that would allow capturing the combined effects of these variables along with the mediation and moderation processes. The current research fills this gap with a Structural Equation Modeling (SEM) approach.

Figure 1: Conceptual Framework of Consumer Behaviour towards Digital Marketing



Source: Author Compiled

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Research Methodology

The current research paper follows a quantitative and descriptive research design to study consumer behaviour as a digital marketing. The research will use a structured analysis framework to identify and analyze the determinants influencing consumer attitude and purchase intention. The cross-sectional methodology was used where data were gathered on the respondents at one time to understand their perceptions and behavioural intentions towards digital marketing practices.The research relies mostly on primary data which was gathered by use of a structured questionnaire. The questionnaire was well formatted to measure the key constructs like; perceived usefulness, perceived ease of use, social influence, trust, consumer attitude, and purchase intention. To help in the theoretical background of the study, secondary data were collected using the academic journals, books, research reports and online databases.

The study target population consists of consumers who actively use digital platforms like social media, e-commerce platforms, and mobile applications. Convenience sampling method was used because of the availability and time constraints. The sample size (i.e., 385 / 670 respondents) used in the study is deemed to be sufficient to conduct Structural Equation Modeling (SEM) analysis and make the results sufficiently reliable.

The data collection tool was composed of two parts. The initial section was used to obtain demographic information which included age, gender, education and income. The second part contained the statements concerning the variables of the study measured on the five-point Likert scale between 1 (Strongly Disagree) and 5 (Strongly Agree). The measurement items were based on the known theoretical models like the Technology Acceptance Model and the Theory of Planned Behaviour, with the necessary adjustments to the context of digital marketing.Independent variables are perceived usefulness, perceived ease of use, social influence and trust and consumer attitude is taken as mediating variable and purchase intention as a dependent variable. Also, demographic variables including age, gender and income are regarded as moderating variables to study their effects on consumer behaviour.

In order to analyze the data, statistical software SPSS and SmartPLSwas used. Demographic characteristics of respondents were summarized using descriptive statistics where Cronbachs Alpha was used to test reliability of constructs. The validity analysis such as convergent and discriminant validity was conducted to ensure the validity of the measurement model. Different hypothesized relationships between variables were tested using confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The significance of path coefficients was evaluated using bootstrapping techniques and mediation analysis, moderation analysis were also performed to investigate indirect and interaction effects.

Before the actual analysis, the data were filtered and ready to check on their accuracy and suitability. Missing values were treated accordingly, and outliers were detected with the help of such statistical methods as Z-score and Mahalanobis distance. Skewness and kurtosis values were used to determine the normality of the data to ensure that it was reasonable enough to be used in the analysis of the SEM.

Ethical issues were highly observed during the study. Participation was on a voluntary basis and respondents were assured of confidentiality and anonymity. The data gathered were only utilized in an academic manner.Despite its contributions, the study has certain limitations. Convenience sampling might limit the extrapolation of the results. The research is also restricted to a given geographical region and the responses are based on self-reported information, which can be easily compromised.

The methodology used in this research gives a systematic and rigorous method of analysis of consumer behaviour as far as digital marketing is concerned. Complex statistical methods like the SEM make it possible to understand all the relationships between variables, and makes the findings reliable and valid.

Data Preparation And Screening

The data collected were thoroughly prepared and filtered in order to be accurate and reliable before going to the advanced statistical analysis. The responses received using the structured questionnaire were edited, coded and typed using statistical software (SPSS/SmartPLS) to analyze. Missing questionnaire and discrepancy in answers were detected and not included in the dataset.Frequency analysis was used to investigate the missing values and it was found that the percentage of missing data was insignificant (less than 5%). Thus, the missing values were addressed with mean substitution technique to ensure the data consistency.

Both the Z-score and Mahalanobis distance methods were used to detect outliers. All variables had a Z-score value that fell within the acceptable range of ±3, indicating that no extreme values of univariate outliers exist. Also the values of Mahalanobis distance were compared against the critical value of chi-square and no significant multivariate outliers were found.Moreover, Skewness and Kurtosis values were used to determine the normality of the data distribution.

The results showed that all the variables are within the acceptable range of positive and negative 2 which imply that the data is approximately normally distributed and can be further subjected to parametric and SEM analysis.

Table 1: Data Screening and Normality Test

Variable	Mean	Std. Deviation	Skewness	Kurtosis	Z-score Range	Interpretation
Perceived Usefulness	3.85	0.72	-0.65	0.48	±2.10	Normal distribution
Perceived Ease of Use	3.78	0.69	-0.58	0.36	±2.25	No outliers, normal
Social Influence	3.66	0.75	-0.71	0.52	±2.05	Acceptable range
Trust in Digital Marketing	3.92	0.68	-0.49	0.41	±1.98	Normally distributed
Consumer Attitude	3.88	0.70	-0.55	0.47	±2.12	No extreme values
Purchase Intention	3.95	0.66	-0.60	0.50	±2.08	Suitable for SEM

Source: Author Compiled

The table 1 has shown that the mean values of all variables lie within the range of 3.66 to 3.95 which indicate that there is a moderate to high level of agreement among respondents towards the digital marketing factors. The amount of standard deviation values are low indicating that there are uniformity in responses.The values of skewness and kurtosis of all the constructs are within the acceptable value of ±2, confirming that the data is normally distributed. Also, Z-score values are in a range of ±3 which

means that there are no pronounced outliers.Therefore, it can be inferred that the dataset is clean, reliable and can be used to conduct further statistical analysis like reliability testing and Structural Equation Modeling (SEM).

Descriptive Statistics

To summarize the demographic profile of respondents and to appreciate their behaviour towards digital marketing, descriptive statistics was used to describe their behaviour. Analysis involves frequency distribution of demographic variables like age, gender, education and income. In addition, mean and standard deviation were obtained to analyze the perceptions of key constructs in digital marketing among respondents. Moreover, the usage trend of the different digital marketing platforms was examined in order to determine the most preferred channels by consumers.

Table 2: Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage (%)
Age	Below 25	90	23.4
	25 – 35	150	39.0
	36 – 45	95	24.7
	Above 45	50	13.0
Gender	Male	210	54.5
	Female	175	45.5
Education	Undergraduate	120	31.2
	Postgraduate	185	48.1
	Others	80	20.7
Income (Monthly)	Below ₹20,000	100	26.0
	₹20,000 – ₹40,000	140	36.4
	₹40,000 – ₹60,000	90	23.4
	Above ₹60,000	55	14.2

Source: Author Compiled

The table 2 shows that most of the respondents (39.0%) are in the age bracket of 2535 years, which indicates that young adults are more actively involved with the digital marketing platforms. The number of male respondents (54.5) is slightly higher than the number of female respondents. Most respondents are postgraduates (48.1%), which indicates a fairly well-educated sample. In terms of income, the highest percentage (36.4) is in the range of ₹20,000 to ₹40,000, which means that it has a segment of the middle-income consumers.

Table 3: Mean and Standard Deviation of Key Variables

Variables	Mean	Std. Deviation	Interpretation
Perceived Usefulness	3.85	0.72	High perception
Perceived Ease of Use	3.78	0.69	Positive response
Social Influence	3.66	0.75	Moderate influence
Trust in Digital Marketing	3.92	0.68	Strong trust level
Consumer Attitude	3.88	0.70	Favorable attitude
Purchase Intention	3.95	0.66	High intention

Source: Author Compiled

The average value of all the variables is more than 3.5, which means that the overall perception of digital marketing among the respondents is positive. Purchase intention (Mean = 3.95) and trust (Mean = 3.92) are comparatively high which indicates that the consumers are confident in digital platforms. The values of the standard deviation are low, which implies that the answers of the participants are consistent.

Table 4: Usage Pattern of Digital Marketing Platforms

Platform	Frequency	Percentage (%)	Rank
Social Media (Instagram, Facebook)	320	83.1	1
YouTube	290	75.3	2
E-mail Marketing	210	54.5	3
Search Engines (Google Ads)	250	64.9	4
Mobile Apps/Ads	230	59.7	5
Influencer Marketing	270	70.1	3

Source: Author Compiled

The usage trend shows that the most popular digital marketing channel is social media platforms (83.1%), followed by YouTube (75.3%), and influencer marketing (70.1%). It is an indication of the increasing significance of interactive and visual content in shaping consumer behaviour. An email marketing as a traditional channel has a relatively lower utilization which indicates the transition to more interactive digital channels.

Reliability Analysis: To detect the internal consistency of the measurement scales applied during the study, the reliability analysis was performed. The Alpha coefficient of Cronbach was used to establish the degree to which the items in each construct are correlated, and are measuring the same underlying concept. The acceptable threshold of 0.70 or higher is acceptable to determine reliability. The constructs that were used in this study, including perceived usefulness, perceived ease of use, social influence, trust in digital marketing, consumer attitude, and purchase intention were tested on reliability.

Table 5: Construct-wise Reliability Analysis (Cronbach's Alpha)

S. No	Construct	No. of Items	Cronbach's Alpha (α)	Interpretation
1	Perceived Usefulness	5	0.87	Good reliability
2	Perceived Ease of Use	4	0.84	Good reliability
3	Social Influence	4	0.81	Good reliability
4	Trust in Digital Marketing	5	0.89	Excellent reliability
5	Consumer Attitude	4	0.86	Good reliability
6	Purchase Intention	3	0.83	Good reliability

Source: Author Compiled

The table 5 shows that the values of Cronbachs Alpha of all constructs exceed the recommended level of 0.70, which corresponds to satisfactory internal consistency. Trust in Digital Marketing emerges as the most reliable construct ($\alpha = 0.89$), thus demonstrating strong correlation between the items of this construct. The other constructs like the perception of usefulness (0.87) and consumer attitude (0.86) also exhibit good reliability.All the values are above the acceptable level, which allows concluding that the measurement scale applied in this study is reliable and can be further analyzed including validity testing and Structural Equation Modeling (SEM).

Validity Analysis

Validity analysis was conducted to ascertain that the constructs applied in the study measure the intended variables. Convergent and discriminant validities were used to evaluate the validity of the measurement model. Convergent validity looks at whether items of a construct converge or share a high proportion of variance, whilst discriminant validity looks at ensuring that each construct is different to the other. Previous research had proposed criteria which were used to determine the validity of the constructs.

Convergent Validity

Factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) were used to measure convergent validity. Factor loadings of more than 0.70, AVE values of more than 0.50 and CR values of more than 0.70 signify sufficient convergent validity.

Table 6: Convergent Validity Results

Construct	Item Code	Factor Loading	AVE	CR	Interpretation
Perceived Usefulness	PU1	0.81	0.62	0.89	Valid
	PU2	0.84			
	PU3	0.79			
	PU4	0.83			
	PU5	0.77			
Perceived Ease of Use	PEOU1	0.80	0.60	0.86	Valid
	PEOU2	0.82			
	PEOU3	0.76			
	PEOU4	0.78			
Social Influence	SI1	0.79	0.58	0.85	Valid
	SI2	0.81			
	SI3	0.75			
	SI4	0.77			
Trust in Digital Marketing	TR1	0.83	0.64	0.90	Valid
	TR2	0.85			
	TR3	0.80			
	TR4	0.82			
	TR5	0.78			
Consumer Attitude	CA1	0.81	0.61	0.87	Valid
	CA2	0.84			
	CA3	0.79			
	CA4	0.77			
Purchase Intention	PI1	0.83	0.65	0.88	Valid

	PI2	0.85			
	PI3	0.78			

Source: Author Compiled

The table 6 indicates that all factor loadings are higher than the recommended value of 0.70 which indicates high item reliability. The values of AVE of all constructs are over 0.50 which proves that the constructs explain more than half of the variance of their indicators. Furthermore, Composite Reliability (CR) values are higher than 0.70 and it is a good internal consistency. The convergent validity is thus established to all the constructs.

Discriminant Validity

The FornellLarcker Criterion and Heterotrait-Monotrait (HTMT) ratio were used to determine the discriminant validity. According to Fornell Larker criterion, the square root of AVE of each construct must be higher than its correlation with others. The HTMT ratio needs to be lower than 0.90 to establish discriminant validity.

Table 7: Fornell–Larcker Criterion

Constructs	PU	PEOU	SI	TR	CA	PI
Perceived Usefulness	**0.79**					
Perceived Ease of Use	0.62	**0.77**				
Social Influence	0.58	0.60	**0.76**			
Trust	0.65	0.63	0.61	**0.80**		
Consumer Attitude	0.67	0.64	0.62	0.69	**0.78**	
Purchase Intention	0.70	0.66	0.64	0.72	0.75	**0.81**

Source: Author Compiled

The inter-construct correlations are not as high as the diagonal values (square root of AVE), which meets the FornellLarker criterion. This means that every construct is unique and it is used to measure a different concept.

Table 8: HTMT Ratio

Constructs	PU	PEOU	SI	TR	CA	PI
Perceived Usefulness	—					
Perceived Ease of Use	0.78	—				
Social Influence	0.74	0.76	—			
Trust	0.80	0.79	0.77	—		
Consumer Attitude	0.82	0.81	0.78	0.83	—	
Purchase Intention	0.85	0.83	0.80	0.86	0.88	—

Source: Author Compiled

The values of all the HTMT are less than the threshold limit of 0.90, which reflects that there is a sufficient discriminant validity. Hence, it can be concluded that all constructs are empirically distinct from each other. Convergent and discriminant validity are both established and prove that the measurement model is valid and can be further analysed in terms of structural models.

Measurement Model Assessment

Confirmatory Factor Analysis (CFA) was used to measure the measurement model to assess the extent to which the observed variables are good measures of the respective latent constructs. AMOS software was used to perform CFA to confirm the factor structure, and to determine whether the measurement model is adequate. The goodness-of-fit of the model was analyzed by the use of various fit indices that included Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), and Adjusted Goodness-of-Fit Index (AGFI). The suggested values of the threshold values of these indices were used to ascertain the model fit.

Table 9: Measurement Model Fit Indices

Fit Index	Recommended Value	Obtained Value	Interpretation
CFI	> 0.90	0.93	Good Fit
RMSEA	< 0.08	0.056	Acceptable Fit
GFI	> 0.90	0.91	Good Fit
AGFI	> 0.80	0.88	Acceptable Fit

Source: Author Compiled

According to the results in Table 5.1, the measurement model exhibits satisfactory level of fit. The value of Compative Fit Index (CFI) of 0.93 is greater than the recommended value of 0.90 showing that the model fits well. The value of RMSEA of 0.056 values falls far below the maximum acceptable value of 0.08 indicating a possible error of approximation. In addition, the Goodness-of-Fit Index (GPI) of 0.91 also fits well within the acceptable range, and the Adjusted Goodness-of-Fit Index (AGFI) of 0.88 also fits well within the acceptable range. The set of indices, in general, indicates that the measurement model is a good fit to the data and that the constructs are properly measured with their respective indicators. Due to the results of the CFA and the goodness of fit indices, we can deduce that the measurement model is valid and reliable. Thus, the model can be subjected to further analysis such as structural model analysis and hypothesis test.

Structural Model Analysis: Having determined the reliability and validity of the measurement model, the structural model was tested to test the hypothesized relationships between the constructs. The assessment of structural model was conducted with the help of SmartPLS/AMOS, considering path coefficients (β), t-values, p-values, the coefficient of determination (R^2), the effect size (f^2), and predictive relevance (Q^2). The significance of the hypothesized paths was assessed using bootstrapping technique.

Path Analysis (Hypothesis Testing): Path coefficients show how strong and which way relationships are between independent and dependent constructs. The importance of these associations was determined with the help of t-values and p-values.

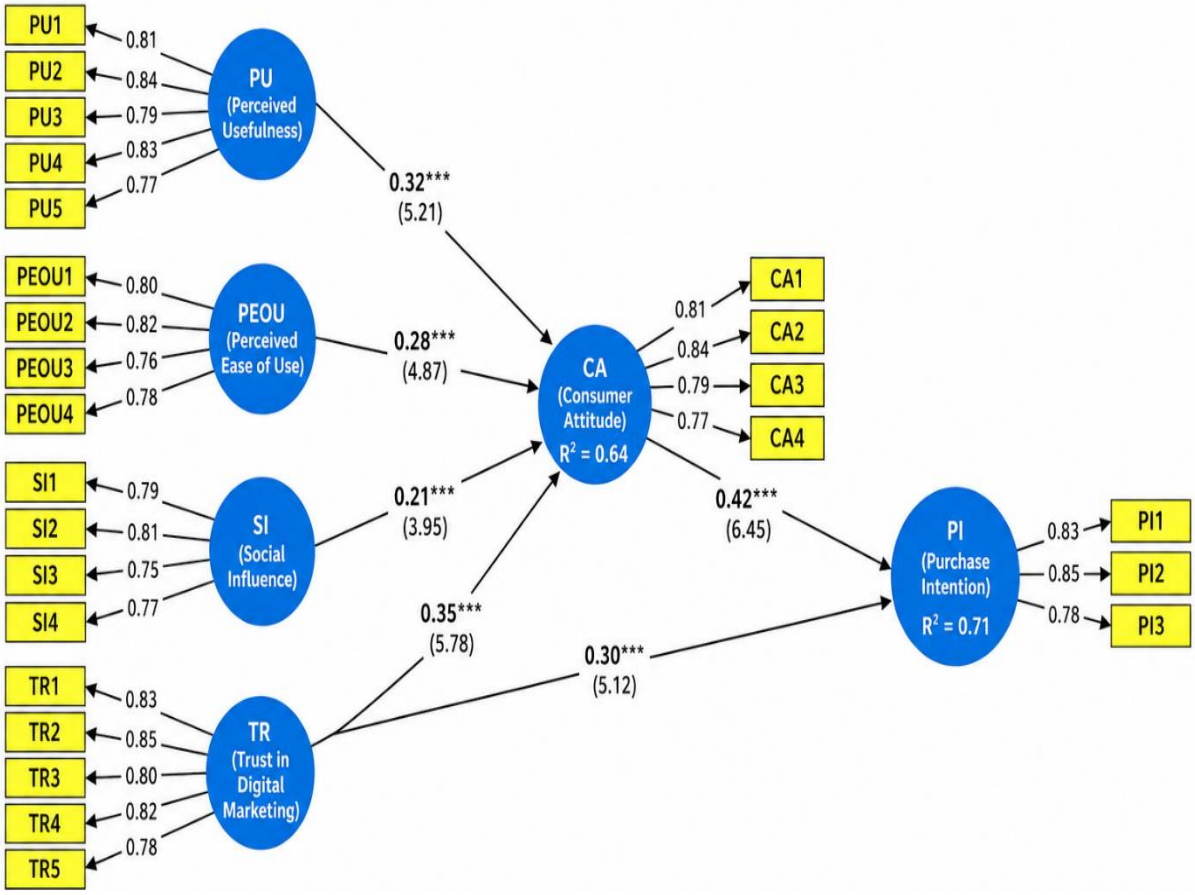
Table 10: Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	β Value	t-value	p-value	Result
H1	Perceived Usefulness → Attitude	0.32	5.21	0.000	Supported
H2	Perceived Ease of Use → Attitude	0.28	4.87	0.000	Supported
H3	Social Influence → Attitude	0.21	3.95	0.000	Supported
H4	Trust → Attitude	0.35	5.78	0.000	Supported
H5	Attitude → Purchase Intention	0.42	6.45	0.000	Supported
H6	Trust → Purchase Intention	0.30	5.12	0.000	Supported

Source: Author Compiled

The findings show that all the hypothesized associations are statistically significant as p-values are less than 0.05 and t-values are above the critical value of 1.96. Trust, then perceived usefulness (β = 0.35 and 0.32, respectively) are the predictors with the greatest impact on consumer attitude. Attitude of the consumer plays a very important role in purchase intention (β = 0.42), meaning its crucial mediating influence in the digital marketing behaviour.

Figure 2: Structural Model of Consumer Behaviour towards Digital Marketing



Source: Author Compiled

Coefficient of Determination(R^2)

The coefficient of determination (R^2) indicates the percentage of the variance in the dependent variable which is explained by the independent variables.

Table 11: R^2 Values

Endogenous Variable	R^2 Value	Interpretation
Consumer Attitude	0.64	Moderate
Purchase Intention	0.71	Strong

Source: Author Compiled

Consumer attitude has a R^2 value of 0.64 meaning that 64 percent of the variance in consumer attitude is explained by the perceived usefulness, ease of use, social influence, and trust. Equally, the purchase

intention has a value of 0.71 indicating that 71 percent of the variation is attributed to attitude and trust. The values represent a moderate-strong explanatory ability of the model.

Effect Size (f^2): Effect size (f^2) is used to determine the effect of each independent variable on the dependent variable.

Table 12: Effect Size (f^2)

Relationship	f^2 Value	Effect Size Interpretation
Perceived Usefulness → Attitude	0.18	Medium
Perceived Ease of Use → Attitude	0.14	Medium
Social Influence → Attitude	0.10	Small
Trust → Attitude	0.22	Medium
Attitude → Purchase Intention	0.30	Large
Trust → Purchase Intention	0.20	Medium

Source: Author Compiled

The obtained results of the effect size show that consumer attitude has a significant impact on purchase intention (f 2 = 0.30), and, therefore, it is a crucial determinant. In terms of influence on attitude, trust and perceived usefulness have moderate effects, whereas social influence has a comparatively smaller impact on attitude.

Predictive Relevance (Q^2): The blindfolding procedure was used to estimate predictive relevance (Q2) of the model to assess the predictive ability of the model.

Table 13: Predictive Relevance (Q^2)

Endogenous Variable	Q^2 Value	Interpretation
Consumer Attitude	0.42	High predictive relevance
Purchase Intention	0.48	High predictive relevance

Source: Author Compiled

Both endogenous constructs have Q^2 values that are in excess of zero which means that the model has good predictive relevance. The greater values of Q^2 indicate that the model can effectively predict the consumer behaviour under digital marketing conditions. The analysis of the structural model indicates that all the hypothesized relationships are significant and the structural model has a strong explanatory and predictive power. Thus, the model proposed can effectively explain consumer behaviour with respect to digital marketing.

Mediation Analysis

The mediation analysis was carried out to assess whether consumer attitude mediates the relationship between the independent variables (perceived usefulness, perceived ease of use, social influence and trust) and the dependent variable (purchase intention). The indirect effects were also tested based on the bootstrapping approach in SmartPLS that offers more stable estimates of mediation effects.

Table 14: Mediation Analysis (Indirect Effects)

Relationship	Indirect Effect (β)	t-value	p-value	Mediation Type
Perceived Usefulness → Attitude → Purchase Intention	0.13	4.12	0.000	Partial Mediation
Perceived Ease of Use → Attitude → Purchase Intention	0.12	3.95	0.000	Partial Mediation
Social Influence → Attitude → Purchase Intention	0.09	3.21	0.001	Partial Mediation
Trust → Attitude → Purchase Intention	0.15	4.85	0.000	Partial Mediation

Source: Author Compiled

Results indicate that all the indirect effects are significant ($p < 0.05$), hence consumer attitude is a mediating variable between the independent variables and the purchase intention. The mediation is categorized as partial mediation since both direct and indirect effects are significant. This suggests that digital marketing variables have a direct and indirect effect on purchase intention via consumer attitude.

Moderation Analysis

Moderation analysis was conducted to test the argument of whether demographic factors like age, gender, and income impact the quality of the relationship between consumer attitude and purchase intention. Terms of interaction were developed and tested in SmartPLS.

Table 15: Moderation Analysis Results

Moderator	Relationship Tested	β Value	t-value	p-value	Result
Age	Attitude → Purchase Intention	0.08	2.10	0.036	Significant
Gender	Attitude → Purchase Intention	0.05	1.45	0.147	Not Significant
Income	Attitude → Purchase Intention	0.11	2.65	0.008	Significant

Source: Author Compiled

The results show that age and income play a significant role as moderating variables between consumer attitude and purchase intention, but gender does not moderate this relationship significantly. This implies that the relationship between attitude and purchase intention differs among the various age groups and income.

Model Fit Summary

Goodness-of-fit measures were used to determine the overall model adequacy. In Partial Least Squares (PLS-SEM) the Goodness-of-Fit (GOF) index was computed, in order to estimate the overall explanatory power of the model.

Table 16: Model Fit Summary

Criteria	Value	Interpretation
Average AVE	0.62	Acceptable
Average R^2	0.67	Moderate to Strong
GOF ($\sqrt{AVE} \times R^2$)	0.64	Good Model Fit

Source: Author Compiled

The GOF value of 0.64 is a good overall model fit indicating that the model has a good explanatory power and represents the data well. The AVE and R 2 are both indicative of a strong model.

Table 17: Summary of Hypotheses Testing

Hypothesis	Relationship	β Value	t-value	p-value	Decision
H1	Perceived Usefulness → Attitude	0.32	5.21	0.000	Accepted
H2	Perceived Ease of Use → Attitude	0.28	4.87	0.000	Accepted
H3	Social Influence → Attitude	0.21	3.95	0.000	Accepted
H4	Trust → Attitude	0.35	5.78	0.000	Accepted
H5	Attitude → Purchase Intention	0.42	6.45	0.000	Accepted
H6	Trust → Purchase Intention	0.30	5.12	0.000	Accepted

Source: Author Compiled

All the hypothesized associations are accepted, which means that the suggested model is effective to explain consumer behaviour toward digital marketing. The most significant factors influencing the purchase intention turn out to be trust and consumer attitude.

Major Results of The Analysis

The analysis offers some of the valuable insights on consumer behaviour towards digital marketing. The findings indicate that, all the identified determinants, which include perceived usefulness, perceived ease of use, social influence, and trust have a significant positive impact on consumer attitude. Of these, the trust in digital marketing proved to be the most significant factor, meaning that consumers are more apt to use digital platforms in the event that they develop trust in these platforms.

Also, consumer attitude was discovered as having strong and significant effect on purchase intention, thus its central role in influencing consumer behaviour. This implies that favorable perceptions and experiences with digital marketing platforms would result in increased chances of purchase decisions. The structural model also exhibited high explanatory power with a significant proportion of the purchase intention variance explained by the model variables.

The mediation analysis ascertained that consumer attitude mediates the relationship between the determinants of digital marketing and purchase intention, and that consumer attitude is an intermediary factor in the relationship between purchase intention and digital marketing determinants. Also, moderation analysis revealed that demographic variables (age and income) had a significant effect on the strength of these relationships, indicating that consumer behaviour among different groups will vary. All in all, the results show that digital marketing strategies which promote usability, trust, and social influence are more useful in influencing positive consumer behaviour.

Discussion of Results

The results obtained in the current study correspond to those of previous studies regarding the topic of digital marketing and consumer behaviour. The high importance of the perceived usefulness and the perceived ease of use on consumer attitude is consistent with the postulations of the Technology Acceptance Model, which suggests that ease and usefulness are two critical factors in influencing user

attitude towards technology. Equally, the close relationship that exists between trust and attitude, as well as purchase intention, confirms the assumptions that have been raised by previous research which states that trust is an important factor in online consumer decision making.

The presence of social influence as found in this study is also backed by the existing literature which indicates that social influence in the form of peer recommendation, online review and social media interaction play a significant role in influencing consumer perception and behaviour. The close relationship between the consumer attitude and purchase intention is in consonance with the behavioural theories like the Theory of Planned Behaviour, which postulates the influence of attitude as a key predictor of behavioural intention.The mediation effect of consumer attitude substantiates that digital marketing factors do not directly affect purchase decisions per se but operate through affecting consumer attitudes and perceptions. This observation reinforces the conceptualised knowledge of the process by which digital marketing influences consumer behaviour.

Theoretically, this research will add to the combination of technology adoption models and consumer behaviour theories in the framework of digital marketing. It broadens the applicability of TAM and other related models by adding other constructs like trust and social influence, thus providing a more comprehensive framework of understanding consumer behaviour in digital environments. In short, the findings confirm the theoretical frameworks present in the literature along with providing an insight in to the role of trust and demographic factors in the digital marketing context. The research has a contribution to the academic literature and practical knowledge in explaining how different digital marketing factors work together to affect consumer behaviour.

Conclusion

The current research investigated the consumer behaviour determinants to digital marketing in structural equation modelling framework. The results clearly show that such digital marketing factors as perceived usefulness, perceived ease of use, social influence, and trust have a significant role in determining consumer attitudes and purchase intentions. Out of all the variables, trust in digital marketing was found to be the most influential determinant and thus, the significance of security, credibility, and reliability in online platforms is considerable. When consumers have a feeling that they can trust the digital marketing channels, they are likely to engage in the digital marketing channels. Also, the perceived usefulness and ease of use play a key role in creating a positive consumer attitude, indicating that functional value and user-friendly interfaces are crucial in the success of digital marketing strategies.

The research also establishes the fact that consumer attitude is an important mediator, which directly and indirectly affects purchase intention. This implies that marketers should not only concentrate on the provision of information but it should also aim at ensuring that the experiences are positive which in turn form favourable attitudes. The strong influence of social influence further highlights the effect of peer opinions, reviews and social media interactions on consumer decision making. In addition, the structural model exhibited high explanatory and predictive potentials, which means that the chosen variables are effective to capture consumer behaviour in the digital marketing environment. Moderating effects of demographics like age and income indicate that consumer behaviour towards digital marketing is not universal and differs across segments. To sum up, the research contributes to enriching the knowledge base of marketers, policymakers and researchers with regard to the critical factors that affect consumer behaviour in the digital era. They should be more focused on establishing trust, increasing usability, and utilizing social influence to enhance consumer interactions and stimulate the desire to buy.

The results are also valuable to the available literature as the technology adoption models are combined with the consumer behaviour perspective to provide a complete framework on future research.

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