

Relationship between Digital Marketing Communication and Consumer Purchase Decision Process, A Research on Smart Devices

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Abstract

Digital marketing has changed people's habits of accessing information, determined their interactions, and provided the birth of various new marketing technologies. Along with these changes in the digital environment, there have also been some changes in consumer purchasing behaviors. Now consumers also use technology very effectively when making purchasing decisions. Understanding how consumers behave in these purchasing decision processes and what affects these processes has become important in the field of marketing. In addition, in recent years, marketers have increasingly included studies on how different generations use technology.

This research aims to show how marketing activities carried out in the digital environment in the smart device sector affect the consumer purchasing decision process and the differences between genders and generations. A survey study was conducted on 281 social media users over the age of 18 living in Istanbul using the convenience sampling method, and the data were analyzed. The research reveals that digital marketing activities are effective in consumer purchasing decision processes, and that this effect exists regardless of gender and generation.

Key words: Digital Marketing Communication, Customer Buying Behavior, Customer Post-Purchase Behavior

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1. Introduction

As a result of the globalization of markets, the emergence of new dynamic business models and the rapid development of techniques and technology have completely changed the environment in which the business operates, making it extremely variable, highly competitive and uncertain (Veleva and Tsvetanova 2020). This rapidly developing new situation creates serious challenges for businesses. In order to be strong in competition, make a profit, ensure their sustainability, they need to completely restructure their business strategies and incorporate digital technology into their activities.

On the other hand, the power of digitalization is reflected in consumer purchasing decision processes, as in every area of life. As digitalization increases, consumers have also started to keep up with the developments rapidly. Yükselen (2022) states that consumers now receive advice from people they do not know on social media; emphasizes that they make purchasing decisions by comparing prices and reading reviews on their mobile devices while shopping in the store.

Therefore, it is of great importance for marketers to correctly analyze the changes and developments in consumer purchasing behavior in order to understand the needs of the consumer in the digital environment and then to provide the right guidance.

2. Literature Review

Digital Marketing Communication

With technological innovations, as the internet and mobile devices have become more prevalent in every aspect of life, consumers have also begun to make decisions to purchase products and services more widely through these channels. In order to reach their target customer base, businesses conduct their marketing activities more effectively, less costly, and in a way that is easier to measure through digital marketing channels that this customer group frequently uses.

Digital marketing not only allows customers to interact with the business but also allows customers to interact with each other. In this case, businesses can learn what other customers think about their products or services (Atshaya and Rungta, 2016).

Digital marketing includes internet marketing and also uses channels that do not require internet use. It includes sending SMS and MMS via mobile devices, online advertising, social media marketing, search engine marketing, and many other forms of digital media (Yasmin et al., 2015).

Consumer Buying Behavior

According to Kotler and Armstrong (2012), the consumer goes through five stages during the purchasing process: need, information search, evaluation of alternatives, purchase decision and post-purchase behavior. The purchasing process starts long before the actual purchase and continues long after. This encourages the marketer to focus not only on the purchasing decision but also on the entire purchasing process.

A consumer's purchase of any product or service depends primarily on the emergence of a need and the desire to meet it. At this point, he researches alternatives, evaluates; decides on the product, service or brand that he thinks will best meet his needs and buys it. The level of satisfaction he achieves with the purchase will affect his next purchase decision (Yükselen, 2022).

As required by the modern marketing approach, consumer behavior has always been the main subject of marketing; because knowing the decision processes of consumers while making purchasing decisions helps businesses develop their marketing strategies and be more successful in the market. Therefore, the challenge that all marketers face today is how to influence consumers' purchasing behavior in favor of their products or services. Therefore, knowledge of purchasing behavior sheds light on the psychology of how consumers think, feel, deliberate, and choose among available alternatives (e.g., brands, products, and retailers), as well as how the consumer's environment (e.g., culture, family, media) influences them, and also how consumer motivation and decision strategies differ across products. All of these lead marketers to understand how to improve their marketing campaigns to achieve their goals (Stankevich, 2017). Understanding the consumer's needs and the purchasing process is the foundation of successful marketing. By understanding how buyers go through the stages of the purchasing decision process, the marketer can gain many clues on how to meet the needs of the buyer. By understanding the various participants in the purchasing process and the strongest influences on purchasing behavior, the marketer can develop an effective program to present an attractive offer to the target market (Kotler and Armstrong, 2012).

Customer Post-Purchase Behavior

The marketer's job does not end when the product is purchased. Whether or not the consumer is satisfied after purchasing the product will shape the post-purchase behavior that the marketer must monitor. The buyer's level of satisfaction with a purchase lies in the relationship between the consumer's expectations and the perceived performance of the product (Kotler and Armstrong, 2012).

After the purchase, the consumer evaluates and examines the product. If they see that the product meets or exceeds the promises and expectations, they potentially become a brand advocate in the second stage of the customer journey,

influencing other potential customers and increasing the chances of repeat purchases. If there is dissatisfaction, negative feedback will occur; this can limit a potential customer's journey towards the product and the brand (Stankevic, 2017).

3. Research on the Effect of Digital Marketing Communication on the Consumer Purchase Decision Process

Purpose of Research

This aims to measure the impact of digital marketing communication on consumer purchasing decision-making in the smart device sector and to reveal the differences in this impact between gender and generations in the context of marketing. For this purpose, 281 surveys were collected and divided according to the gender and generation of the respondents. The research was conducted on consumers from Generation X, Y and Z.

According to generation theory, people are divided into generation groups according to their birth years and assume similar patterns of thought, emotion and behavior (Khoa and Huynh, 2024). Generation groups are one of the most popular segmentation methods in mass markets. The main idea here is that people born and raised in the same period have experienced the same important events. Therefore, they share the same sociocultural experiences and probably adopt similar values, attitudes and behaviors.

Generations generally consist of 5 generations:

- Baby Boomers (born between 1946-1964)
- Generation X (born between 1965-1980)
- Generation Y (born between 1981-1996)
- Generation Z (born between 1997-2009)
- Generation Alpha (born between 2010-2025) (Kotler, et al., 2021).

Generation X wants to hear the features of the product as well as an explanation of why these features are necessary. They are both cynical and sophisticated about products, advertisements, and shopping. Relationship-oriented services can change this group's commodity-based view of the shopping experience. This group is the most price-conscious and has low price sensitivity. They want products and messages that are uniquely designed for their tasks and lifestyles. Information and technology are important in products and services (Williams and Page, 2011).

Millennials are often described as independent, self-confident, collaborative, selfish, and diverse. This generation has grown up with technology, computers, mobile phones, and the internet. They often think about the relationships between themselves, work, and life. They believe they can achieve anything, and they think they are “high-expectation, risk-taking, and highly productive.” Growing up in a world different from their parents and surrounded by modern technologies and a consumer society, Generation Y is transformational (Yüksekbilgili, 2013).

Generation Z, who was born in a time when the internet was already widespread, is known as the digital generation by nature. This group, which has no experience of life without the internet, sees digital technologies as an integral part of their daily lives. They are always connected to the internet for learning, news, shopping and social networks. Even when they are in a social environment, they consume content from different screens at all times. Therefore, they do not think that there is a boundary between the online and offline worlds (Kotler, et al., 2021).

Many businesses are reaching out to consumers across generations and trying to capture and understand the attention of these different buyers. Each generation has unique expectations, experiences, lifestyles, values, and demographics that affect their purchasing behavior. Being sensitive to different generations will help marketers be more aware and sensitive to their customers’ needs and behaviors. Marketers need to respond to the trend of multi-generational marketing and branding by adjusting their strategies in this direction (Williams and Page, 2011).

Conceptual Model of Research

The conceptual model is presented in Figure 1. The mental and behavioral process of determining the need and evaluating the alternatives in the consumer's purchasing decision process is defined by the Digital Marketing Communication variable. The variable consists of two components: Information Search and Evaluation of Options. The attitude formed as a result of information gathering and option evaluation at this stage of the process affects the Purchase Decision; the Purchase Decision affects Post-Purchase Behavior.

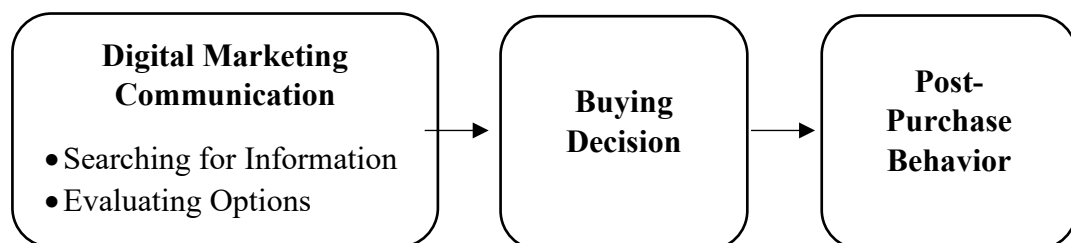


Figure 1. Conceptual Model of Research

Research Hypothesis

In light of the literature examining consumer purchasing behavior, the hypotheses of the research were determined as follows:

H₁: Digital Marketing Communication positively affects the Purchase Decision.

H₂: Digital Marketing Communication Components together positively affect the Purchase Decision.

H₃: The Purchase Decision made under the influence of Digital Marketing Communication positively affects Post-Purchase Behavior.

H₄: The effect of Digital Marketing Communication on the Purchase Decision differs according to the gender of the consumers.

H₅: The effect of Digital Marketing Communication on the Purchase Decision differs according to the generations.

H₆: The effect of the Purchase Decision made under the influence of Digital Marketing Communication on Post-Purchase Behavior differs according to the gender of the consumers.

H₇: The effect of the Purchase Decision made under the influence of Digital Marketing Communication on Post-Purchase Behavior differs according to the generations.

Population and Sampling Process

Consumers living in Istanbul, aged 18 and over, who use digital channels, constitute the population, and the sample included in the research was determined with the following formula (Yükselen, 2017, 67): The population was evaluated as a two-choice population as consumers who use digital marketing channels (p) and those who do not (1-p=q), and the value of 0.50, which gives the maximum variance in cases where the rates are unknown, was taken; Z, the security level is 95% (±1.96) and e, the tolerance (6%),

$$n = p * q * (Z/e)^2 = 0,50 * 0,50 * (1,96 / 0,06)^2 = 267$$

Sample units were reached through convenience sampling methods.

Data Collection Method

Data was collected from the respondents using the survey method. For this purpose, the studies of Dahiya and Gayatri (2018) were used for the scales related to the variables specified in the conceptual model and were transformed into survey questions and a 5-point Likert scale was used. In the study, data was collected from 281 respondents in a face-to-face environment.

Data Analysis

At the end of the data collection process, it was determined that 281 survey forms were suitable for analysis and the data were included in the analysis.

Descriptive Information Regarding Respondents

In light of the surveys collected, demographic characteristics of 281 respondents were examined in terms of generation and gender. As can be seen in Table 1, the age groups of the respondents participating in the study were evaluated according to generations and the majority of them were Generation Z with a rate of 73.7% and female respondents with a rate of 62.3%.

Table 1. Distribution of Respondents by Generation and Gender

Age Groups (Generations)	n	%	Gender	n	%
18 – 23 (Generation Z)	207	73,7	Female	175	62,3
24 – 43 (Millenials)	63	22,4	Male	106	37,7
44 and up (Generation X)	11	3,9	Total	281	100
Total	281	100			

Exploratory Factor Analysis Regarding the Components of the Digital Marketing Communication Variable

The original scale of the Digital Marketing Communication variable, which consists of three components and 12 judgments, was transformed into a two-factor structure by performing Exploratory Factor Analysis. The KMO value is 0.940 and is greater than 0.50, indicating that the sample size is suitable for analysis and the Bartlett's Test of Spherity Chi-square value is 1606.641 and $p < 0.01$, indicating that the data distribution is suitable for a multivariate normal distribution. The total variance explained by the two factors is 59.778%, and BA6 and BA7, whose factor loadings were below 0.60 in the analysis, were removed from the structure. The factors are shown in Table 2 and named as follows:

F1: Option Evaluation
F2: Information Retrieval

Table 2. Results of Exploratory Factor Analysis Regarding Digital Marketing Communication Variable

	Factors	
	1	2
BA1		,668
BA2		,650
BA3		,762
BA4		,772
BA5		,662
SD1	,611	
SD2	,687	
SD3	,788	
SD4	,724	
SD5	,713	

Reliability Analysis Results Regarding Variables in the Conceptual Model

After the Exploratory Factor Analysis, the reliability analyses of the scales were tested with Cronbach's Alpha. As seen in Table 3, the reliability coefficients of the conceptual model variables are high.

Table 3. Results of Reliability Analysis

Variables	Number of Items	Cronbach's Alpha
Digital Marketing Communication	10	0,894
Information Retrival	5	0,835
Option Evaluation	5	0,831
Buying Decision	10	0,849
Post-Purchase Behavior	3	0,761
Total Scale	23	0,931

Analysis Results of the Effect of Digital Marketing Communication on Consumer Purchasing Decision

The effect of digital marketing communication on consumer purchasing decisions was tested with Simple Regression Analysis. The analysis results in

question are shown in Table 4. According to the results in Table 4, the regression equation was found to be significant at 1% significance level; H1 hypothesis was supported, and digital marketing communication positively affects consumer purchasing decisions.

Table 4. Regression Analysis Results on the Effect of Digital Marketing Communication on Consumer Purchase Decision

Model	R		R ²	Adjusted R ²	Standard Error of the Estimate
	0,701		0,491	0,489	0,58195
	Sum of Squares	df	Mean Square	F	p
Regression	91,050	1	91,050	268,850	0,000
Residual	94,488	279	0,339		
Total	185,538	280			
Model	Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
Constant	0,925	0,151		6,123	0,000
DPI	0,682	0,0042	0,701	16,397	0,000

DPI: Digital Marketing Communication

The effect of the components of digital marketing communication on the purchase decision was tested with Multiple Regression Analysis. The results of the analysis are shown in Table 5. According to the results in Table 5, the regression equation was found to be significant at a significant level of 1%; H2 hypothesis was supported, and the components of Digital Marketing Communication together positively affect the Purchase Decision.

Table 5. Regression Analysis Results on the Effect of Digital Marketing Communication Components on Consumers' Purchase Decisions

Model		R	R ²	Adjusted R ²	Standard error of the Estimate	Durbin - Watson	
		0,717	0,514	0,511	0,56927	1,686	
	Sum of Squares	df	Mean Square	F	p		
Regression	95,448	2	47,724	147,265	0,000		
Residual	90,091	278	0,324				
Total	185,538	280					
Model	Coefficients		Standardized Coefficients	t	p	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Sabit	0,902	0,148		6,100	0,000		
SD	0,521	0,053	0,580	9,832	0,000	0,503	1,989
BA	0,161	0,053	0,179	3,041	0,003	0,503	1,989

SD: Option Evaluation

BA: Information Retrieval

Regression Analysis Results on the Effect of Purchase Decision Made with the Influence of Digital Marketing Communication on Post-Purchase Behavior

The effect of Purchase Decision Made with the Influence of Digital Marketing Communication on Post-Purchase Behavior was tested with Simple Regression Analysis. The analysis results in question are shown in Table 6. According to the results in Table 6, the regression equation was found to be significant at 1% significance level; H3 hypothesis was supported, and Purchase Decision Made with the Influence of Digital Marketing Communication positively affects Post-Purchase Behavior.

Table 6. Regression Analysis Results on the Effect of Purchase Decision Made with the Influence of Digital Marketing Communication on Post-Purchase Behavior

Model	R		R ²	Adjusted R ²	Standard error of the Estimate
	0,691		0,478	0,476	0,72880
	Sum of Squares	df	Mean Square	F	p
Regression	135,685	1	135,685		
Residual	148,190	279	0,531	255,458	0,000
Total	283,875	280			
Model	Coefficients		Standardized Coefficients	t	p
	B	Std. error	Beta		
Constant	0,740	0,184		4,030	0,000
SA	0,855	0,054	0,691	15,983	0,000

SA: Buying Decision

Results of the Difference Analysis of the Effect of Digital Marketing Communication on the Purchase Decision According to the Gender of Consumers

The difference analysis of the effect of Digital Marketing Communication on the Purchase Decision according to the gender was done with Simple Regression analysis. The analysis results are shown in Table 7. Since the regression coefficients of women and men in the difference analysis according to the gender are close to each other, the H4 hypothesis was rejected and the effect of Digital Marketing Communication on the Purchase Decision exists in both groups and does not differ according to the gender of consumers.

Table 7. Results of Analysis of the Effect of Digital Marketing Communication on Purchase Decisions According to Gender of Consumers

Gender	F	p	Digital Marketing Communication Regression Coefficient	
			B	p
Female	157,238	0,000	0,654	0,000
Male	110,728	0,000	0,729	0,000

Results of Generational Difference Analysis of the Effect of Digital Marketing Communication on Purchase Decision

The generational difference analysis of the effect of Digital Marketing Communication on Purchase Decision was conducted using Simple Regression Analysis. The analysis results are shown in Table 8. The regression equations were significant in all three generation groups. There were differences in the regression coefficients, and according to this result, the H5 hypothesis was supported. The regression coefficient regarding the effect of Digital Marketing Communication on Purchase Decision in Generation Y was higher than in other groups; it was determined that there was no significant difference between the regression coefficients among other generations.

Table 8. Results of Generational Difference Analysis of the Effect of Digital Marketing Communication on Purchase Decisions

Generations	F	p	Digital Marketing Communication Regression Coefficient	
			B	p
Generation Z	142,844	0,000	0,603	0,000
Millenials	200,552	0,000	0,929	0,000
Generation X	9,932	0,012	0,615	0,012

Results of the Difference Analysis of the Effect of the Purchase Decision Made Under the Influence of Digital Marketing Communication on Post-Purchase Behavior According to the Gender of Consumers

The difference analysis of the effect of the Purchase Decision Made Under the Influence of Digital Marketing Communication on Post-Purchase Behavior according to the gender was conducted with Simple Regression analysis. The regression equations were found to be significant in both groups (Table 9). It is seen

that there is a difference between the regression coefficients. Accordingly, the H6 hypothesis is supported and the effect of the purchase decision made under the influence of digital marketing communication on post-purchase behavior is higher in women.

Table 9. Results of the Difference Analysis of the Effect of Digital Marketing Communication on Post-Purchase Behavior Based on the Gender of Consumers

Gender	F	p	Buying Decision Regression Coefficient	
			B	p
Female	194,118	0,000	0,907	0,000
Male	67,427	0,000	0,772	0,000

Results of Generational Difference Analysis of the Effect of Purchase Decision Made with the Effect of Digital Marketing Communication on Post-Purchase Behavior

Analysis of the Effect of Purchase Decision Made with the Effect of Digital Marketing Communication on Post-Purchase Behavior by Generations conducted using Simple Regression Analysis. As can be seen in Table 10, the regression equations were significant. According to the regression coefficients, the effect coefficient in Generations X and Y was close to each other and higher than Generation Z. According to this result, the H7 hypothesis was supported.

Table 10. Results of Generational Difference Analysis on the Effect of Purchase Decisions Made with the Influence of Digital Marketing Communication on Post-Purchase Behavior

Generations	F	p	Buying Decision Regression Coefficient	
			B	p
Generation Z	144,445	0,000	0,837	0,000
Millenials	158,552	0,000	0,921	0,000
Generation X	9,464	0,013	0,942	0,013

4. Conclusions

Digital channels, which are an important part of our lives as consumers, have created great opportunities for businesses to communicate with their target audiences. Instant and fast communication, accurate messages are followed by consumers and play an important role in purchasing decisions. Today, interaction, which refers to mutual communication, is gaining importance for marketers every day and research findings on this subject also shed light on practitioners.

Research findings support the findings in literature. Consumers who engage in digital marketing communication have positive effects on purchasing decisions

due to the emotional and intellectual benefits they obtain with this communication. After purchasing, consumers consider the satisfaction or dissatisfaction in these decisions in their post-purchase behaviors, as in the theoretical acceptance of the decision process.

The findings of our research, which are similar to the research findings in literature, provide significant contributions to marketers. The use of digital channels and digital marketing communication, which are becoming more widespread every day, allow positive results to be obtained in favor of brands when carried out with content marketing appropriate for the target audience. What is important is to determine which channels the target audience is on, which information they focus on while searching for products that will meet their needs, and effective content prepared within this framework will create positive feedback.

It has been determined that these positive effects on the consumer purchasing decision process are also significant and positively effective when the differences in the genders of the consumers and the generations they represent are examined. Despite some differences in the levels of effect, the existence of these effects is an important finding for businesses. The findings show that digital marketing communication is effective in every gender and generation, and that the decisions made are effective in post-purchase behavior, which is an important finding that should be evaluated in practice.

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