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Η επίδραση διαφορετικών ψηφιακών σημείων επαφής  
στη διαδικασία αγοραστικής απόφασης του πελάτη

**ΣΚΑΡΠΑΡΗΣ ΕΜΜΑΝΟΥΗΛ**

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**ΕΠΙΒΛΕΠΩΝ ΚΑΘΗΓΗΤΗΣ: ΛΙΒΑΣ ΧΡΗΣΤΟΣ**

**ΜΑΙΟΣ 2022**

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## Περίληψη

Τόσο στα παραδοσιακά όσο και στα ψηφιακά κανάλια, η λειτουργία του μάρκετινγκ στοχεύει στον σχεδιασμό και την εφαρμογή κατάλληλων στρατηγικών και τακτικών για το κάθε στάδιο στο οποίο περνούν οι καταναλωτές κατά την διάρκεια της αγοραστικής διαδικασίας. Στο ψηφιακό περιβάλλον, οι εταιρείες αλληλοεπιδρούν με τους υποψήφιους πελάτες χρησιμοποιώντας τα διάφορα ψηφιακά σημεία επαφής, ο αυξανόμενος αριθμός των οποίων εμποδίζει τον αποτελεσματικό και αποδοτικό συντονισμό των δραστηριοτήτων του μάρκετινγκ.

Η παρούσα έρευνα στοχεύει στη διερεύνηση της αντιληπτής εξάρτησης των καταναλωτών στα διάφορα ψηφιακά σημεία επαφής σε όλη τη διάρκεια του αγοραστικού τους ταξιδιού. Επίσης εξετάζει την επίδραση των προσωπικών χαρακτηριστικών των καταναλωτών καθώς και τον τύπο της ψηφιακής συσκευής που χρησιμοποιείται στην αγοραστική αντίληψη του καταναλωτή. Τα αποτελέσματα από μία μη πιθανοτική δειγματοληψία καταναλωτών έδειξαν ότι οι συμμετέχοντες εμφανίζουν αυξημένη εξάρτηση από εταιρικούς ιστότοπους, ηλεκτρονικά καταστήματα, το Instagram, διαδικτυακές ερωτήσεις και το YouTube κατά τη διάρκεια του αγοραστικού τους ταξιδιού.

Επιπλέον, φαίνεται ότι η εξάρτηση των καταναλωτών στα διάφορα ψηφιακά σημεία επαφής επηρεάζεται και από τα προσωπικά τους χαρακτηριστικά, όπως το φύλο και η γενιά στην οποία ανήκουν. Οι γυναίκες καταναλωτές παρουσιάζουν αυξημένη εξάρτηση από το Instagram για τον εντοπισμό μια πιθανής τους ανάγκης, ενώ οι άνδρες εξαρτώνται περισσότερο από το YouTube στα περισσότερα στάδια του αγοραστικού τους ταξιδιού. Τέλος, οι καταναλωτές που ανήκουν σε νεότερες γενιές παρουσιάζουν μεγαλύτερη εξάρτηση στα διάφορα ψηφιακά σημεία επαφής από ότι οι παλαιότεροι καταναλωτές.

Συνολικά, ο εντοπισμός διαφορών στις προτιμήσεις των χρηστών στα ψηφιακά σημεία επαφής διευκολύνει τον σχεδιασμό του ψηφιακού μάρκετινγκ και τη στόχευση διακριτών τμημάτων με κατάλληλες τακτικές.

Αυτή η εργασία αποτέλεσε την βάση για την δημιουργία του άρθρου 'Consumer Reliance on Alternative Digital Touchpoints throughout the Buying Process' by Christos LIVAS, Emmanouil SKARPARIS and Apostolos SKOTIS το οποίο δημοσιεύτηκε στην Expert Journal, Volume 10 Issue 1, 2022 (Marketing.ExpertJournals.com).

## Project Title

# The impact of alternative digital touchpoints on the customer buying process

## Abstract

In both traditional and digital channels, the marketing function aims at devising and implementing appropriate strategies and tactics for each stage consumers go through when they are considering a purchase. In the digital environment, brands interact with consumers with use of digital touchpoints, the growing number of which hinders effective and efficient coordination of marketing activities.

The present research aims at investigating consumers' perceived reliance on alternative digital touchpoints throughout the consumer buying process, and examining the impact of personal characteristics and type of digital device used on consumer perceptions. Results from a non-probability sample of consumers showed that participants exhibit increased reliance on corporate websites, online stores, Instagram, web enquiries and YouTube during their buying journey.

However, it appears that consumer reliance on digital touchpoints is affected by personal characteristics, such as gender and generation. Female consumers report increased reliance on Instagram to identify potential needs whereas males depend on YouTube during most stages of decision making. Lastly, consumers who belong in younger generations report greater reliance on digital touchpoints than older consumers.

Overall, identification of differences in user preferences of digital touchpoints facilitates digital marketing planning and targeting of distinct segments with appropriate tactics.

This project formed the basis for the creation of the article 'Consumer Reliance on Alternative Digital Touchpoints throughout the Buying Process' by Christos LIVAS, Emmanouil SKARPARIS and Apostolos SKOTIS which was published in Expert Journal, Volume 10 Issue 1, 2022 (Marketing.ExpertJournals.com).

## Keywords

*digital marketing, digital touchpoints, digital devices, consumer behavior, decision making, buying process*

## 1. Introduction

On a daily basis, contemporary consumers are faced with an abundance of marketing messages across traditional and new media. The resulting intensity of competition for consumers' attention, requires marketers to improve coordination of marketing tactics.

However, the effectiveness of marketing management is hindered by the fragmentation of traditional channels and the advent of novel and interactive communications' options. Because of continuous technological advancements and shifting consumer habits, the digital marketing toolkit is constantly growing and evolving. From websites, e-shops, email and text messaging, contemporary interactive marketing tactics now include search engine marketing, social media, blogging and artificial intelligence, among other.

Although digital marketing provides significant advantages to the marketing function, such as precise targeting (Stalidis, 2019), increased message relevance and measurement of impact (Järvinen and Karjaluoto, 2015; Taiminen and Karjaluoto, 2015), it may also lead to loss of control (Mangold and Faulds, 2009; Taiminen and Karjaluoto, 2015) and endanger brand reputation (Leefflang et al., 2014).

Irrespective of the nature of the channels employed, a primary aim of marketing is to devise and implement appropriate strategies and tactics for each stage consumers go through when they are considering a purchase. To achieve effective use of available marketing options in the digital environment, marketers ought to determine the purpose for which consumers rely on each of these options. The multitude of available ways brands can interact with consumers on digital media (Lemon and Verhoef, 2016), labelled as digital touchpoints (Hallikainen et al., 2019), accentuates the problems involved with effective and efficient coordination of marketing activities (Kannan and Li, 2017).

Prior studies have emphasized the need to examine the relationship between digital touchpoints and the content needs of consumers (Straker et al., 2015), and understand the specific roles each digital touchpoint plays in consumer decision making, considering the digital device preferences of users (Kannan and Li, 2017).

To fill the aforementioned gap, the present research aims at investigating consumer perceptions about the importance of digital touchpoints during every stage of the consumer buying process. Furthermore, the study aims to examine the impact of personal characteristics and type of digital device used on consumers' perceptions about the relative importance of digital touchpoints.

Overall, identification of consumers' reliance on particular digital touchpoints for need recognition, information collection, evaluation of alternatives, purchase decisions and post-purchase evaluation, is assumed to be of critical importance to effective digital marketing planning, in terms of implementing appropriate tactics for each stage of consumer decision making.

## 2. Literature Review

### 2.1 Digital Touchpoints and Channels

Technological innovation and advancement have given rise to multiple digital channels, all of which represent technology-based ways of interaction between brands and customers (Edelman, 2010; Straker et al., 2015). In their more specific form, individual opportunities of interaction with use of digital technology have been referred to as digital touchpoints (Straker et al., 2015; Vannucci and Pantano, 2020).

These touchpoints are often initiated by individuals (Hallikainen et al., 2019) and involve numerous digital marketing tools, such as websites, podcasts, mobile applications, search engines, websites, email and social media (Hallikainen et al., 2019; Straker et al., 2015). Conceptualized as interactions which prompt a dialogue between brands and consumers with use of traditional and digital media (Vannucci and Pantano, 2020), touchpoints have been considered of critical importance to the formulation of brand attitudes and purchase intentions (Siqueira et al., 2020).

Within a consumer's journey, touchpoints can provide positive or negative moments of truth about the product or the brand (Kotler, 2017), and ultimately shape consumer responses. In essence, individual touchpoints initiated by consumers during their purchase journeys determine engagement with the brand and formulate customer experiences (Lemon and Verhoef, 2016).

In view of the critical role of touchpoints in consumers' experience with the brand, marketers are required to identify positive and negative consumer interactions, and subsequently, place emphasis on the former while attempting to remedy the latter. Past research has produced categories of digital touchpoints that share common properties.

The resulting groups of touchpoints are often referred to as digital channels (Straker et al., 2015), and existing classifications have been based on aspects such as source of channel control, source of channel activity and channel purpose (Edelman, 2010; Lemon and Verhoef, 2016; Stephen and Galak, 2012; Straker et al., 2015). For instance, the typology of Straker et al. (2015) suggests that digital touchpoints can be grouped into functional, social, community and corporate channels.

According to the authors, functional touchpoints are mainly characterized by one-way communications and often aim at providing general brand information, reminding customers about their online purchases, providing incentives to interact with the brand and driving traffic to the website. Social touchpoints are characterized by two-way interactions, provision of information and promotional material, and aim at cultivating customer engagement and generating interest. Community touchpoints rely on groups of digital users and facilitate the exchange of content, provide more in-depth information, encourage consumer involvement and allow companies to form connections with prospective customers. Lastly, corporate touchpoints are characterized by one-way interactions and aim at gaining customer feedback, providing customer support, encouraging loyalty and providing in-depth company information.

Although existing typologies of touchpoints result into diverse categorizations, they are all based on the fact that touchpoints have different characteristics and are arguably better

suited to achieve specific outcomes. Hence, brand reliance on individual touchpoints is expected to vary according to consumers' circumstances, preferences and individual characteristics.

## 2.2 Participatory Digital Culture

For sure, one of the biggest changes that internet has brought to our lives is the ability of users to intergrade into networks with other similar -midden users. In these networks people can share information about certain products, talk about their experience, vote, write reviews, give advices and exchange their perspectives with other individuals.

Because of this "sharing" more and more analysts nowadays recognize the existence of a "hive minded" mentality that day by day grows more popular and known among individuals sharing a common interest. This is translated as a large group of people or more specifically their collective of thoughts, ideas, opinions and all other info that has been shared to define them functioning together as a single mind. With this hive minded power in their hands consumers are more powerful and cannot easily be affected or duped by big companies. This benefit encourages consumers to share more information and participate more often in "hive minded" communities, as it seems that leads to better purchase decisions. However there always be some critics that say that this might leads to a bad decision which was governed by a blind consensus.

No matter the quality of the purchase result this trend holds important ramifications for studies of consumer shopping behavior. It proposes that there is a hive mind that is constantly interacts with the consumer at all stages of the purchase journey.

This polysynchronous consumption can be defined as:

"Integration of two-way peer to peer, peer-content and peer-brand interaction, through blending of multiple channels of face-to-face, asynchronous online and synchronous online communication"

Participatory culture has changed the way consumers take purchase decisions. A powerful social collective impact, guide the consumers to a purchase decision. Nowadays in the contemporary environment we live and interact, the information concerning our decision, in the things we choose to consume, is no longer at the hands of the businesses and organizations but is held on the hands of other consumers. Every consideration and decision of the contemporary consumer is driven by a powerful enormous social collective.

In this web based "participatory culture" every user can be a producer, a usual consumer or an influencer that spreads and shared his info and experience, concerning some product or service.

## 2.3 Consumer Buying Process

Consumer behavior theory suggests that the consumer buying process consists of a series of discrete steps. The terms 'decision-making', 'buying process', 'journey' and 'purchase funnel' are often used interchangeably to denote the sequence of stages consumers go through to satisfy their needs and wants. The most prevalent conceptualizations of the buying process are based on the Engel, Kollatt, and Blackwell (EKB) consumer decision-making model (1968), which proposes that consumer purchase decisions consist of five stages: problem recognition, information search, evaluation of alternatives, purchase, and post purchase evaluation (Ashman et al., 2015; Engel, Blackwell and Miniard, 1995).



## 2.4 The Five Steps of EKB Model

Consumer behavior theory shows that the consumer buying process consists of a series of steps. Engel, Kollatt, and Blackwell (EKB) model 1978, proposes that every purchase decision consists of five steps.

- problem recognition
- information search
- evaluation of alternatives
- purchase
- post purchase evaluation

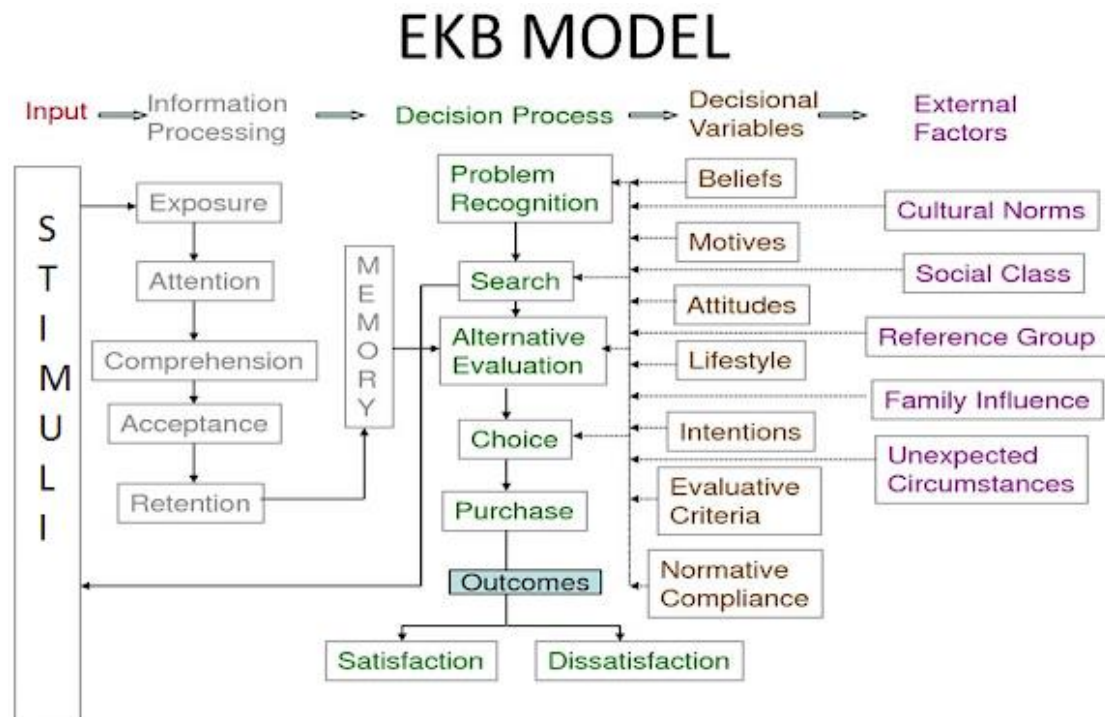


Figure 1 The EKB Model exhibiting its various components

The model builds on the field of consumer psychology theories and models and is considered one of the most important works in the field of consumer behavior (Schiffman and Kanuk 2008).

The model starts with the consumers recognize a problem, a need he or she might have. This recognition of problem or need existence, is triggered by internal and/or external stimuli, that cause shifts in the actual or ideal states of individuals (Kotler et al., 2017; Solomon et al., 2013).

Next, the buying process begins as consumers proceed to seek information relating to their need from personal, commercial, public and/or experiential sources (Kotler et al., 2017). So, what follows is a search of optional solutions, different things he might find to satisfy his/her need and give solution to the problem. This search is done by obtaining information from various of sources, external and internal. Internal sources might be previous knowledge, relevant memories and experiences. In this stage the consumer will come with a final option, something that is needed to be purchased.

On the third step and before the final purchase the consumer will search and evaluate any other alternatives might exist. Before deciding about a purchase, consumers are required to

narrow down and evaluate alternative options based on logical thinking, impulse and/or intuition (Kotler et al., 2017; Solomon et al., 2013). The result of the evaluation will be a final decision. This will lead the consumer to the “purchase” step.

Once the purchase is made what follows is the final step in with the consumer will do a post-purchase research to ensures he/she made the right decision. This shows that despite the fact that purchase decisions may be hindered by peer pressure or situational factors, consumers also engage in post-purchase evaluations of their satisfaction with product or brand selection (Kotler et al., 2017).

As every marketing model the EKB model has been criticized as being too restrictive to adequately accommodate the variety of consumer decision situations.

## 2.5 Alternative Approaches for Customer Journey

Finally, the authors suggest that the customer journey entails three broad stages (Lemon and Verhoef, 2016; Sands et al., 2016). Similar to the sequential process of the EKB model, these conceptualizations indicate that the entire customer experience consists of customer interactions with the brand before a purchase transaction (pre-purchase stage), during the purchase event (purchase stage) and following the actual purchase (post-purchase stage) (Lemon and Verhoef, 2016). Irrespective of the exact number of stages attributed to the buying process, brands are required to determine the critical points of interaction that are responsible for consumer progression to subsequent steps in the purchase journey (Lemon and Verhoef, 2016).

Despite existing criticisms and the emergence of digital technology, the fundamental EKB model of consumer decision-making remains relevant to contemporary marketing (Ashman et al., 2015). This is not to say that disruptive innovations, such as social media and the resulting participatory digital culture, have not affected aspects of consumer decision-making. For instance, while social media are hypothesized to allow for a quicker and more efficient evaluation of alternatives, post-purchase evaluation of customer satisfaction may be prolonged and more finely recorded (Ashman et al., 2015).

Lastly, the exact process of product evaluation and selection is often seemingly irrational and like most generalizations in marketing, consumer decision-making is contingent upon aspects of the decision (e.g., perceived risk and number of available options) and personal characteristics (e.g., demographics) (Solomon et al., 2013).

### 3. Research Premises

The importance and perceived usefulness of each digital touchpoint on each stage of the consumer buying process is assumed to be shaped by individual consumer characteristics and the nature of the product being sought (Lemon and Verhoef, 2016). Because each touchpoint corresponds to a different digital marketing tactic, their relative importance to consumers is also anticipated to vary according to each touchpoint's particular specifications.

Furthermore, existing literature suggests that consumers' digital experiences are strongly influenced by the type of digital device they use (Kannan and Li, 2017). With more than 6,3 billion smartphone users on a global level (Statista, 2021), mobile devices have become of critical importance to marketers, and consumers appear to use them primarily for information search (Lemon and Verhoef, 2016).

Because the present study assumes that the diverse characteristics of digital touchpoints are better matching to different stages of the buying process, consumers are expected to demonstrate varying levels of reliance on different digital touchpoints, according to 'where they are' in the buying process. However, due to the vast number of existing digital touchpoints and the fact that they may have some overlapping characteristics, it is rather difficult to produce definitive predictions about their perceived usefulness by consumers. For instance, emails, web enquiries, digital advertising and social media are often combined to generate online traffic (Chaffey and Smith, 2017).

Emails, text messaging and social media may be employed to communicate behavioral incentives, in the form of competitions or exclusive promotions (Straker et al., 2015), thus contributing to purchases. Considering the significant differences and overlap of 4 alternative digital touchpoints, it is hypothesized that 'consumers rely on different touchpoints and/or channels as they find themselves in different stages of the buying decision process' (H1).

Although contested, past research has argued that older consumers demonstrate lower usage of digital technologies and the internet, suggesting the existence of an age-based digital divide (Kiel, 2005; Yu et al., 2016). At the same time, existing literature suggests that the emergence of social media coincides with the rise of highly educated consumer populations that demonstrate higher levels of skepticism towards marketing tactics (Mangold and Faulds, 2009).

In view of the above, irrespective of the specific stage in the buying process, it is expected that 'reliance on digital touchpoints is greater on average for consumers who are younger (H2), less educated (H3) and are frequent internet users (H4). Regarding the digital environment, as it is determined by the device employed, prior studies suggest that mobile devices are mainly used by consumers for informational purposes (Lemon and Verhoef, 2016).

Thus, it is expected that consumers who primarily use mobile devices (i.e., smartphones) to access the internet, are more likely to rely more on digital touchpoints to identify needs (stage 1), collect information (stage 2), evaluate alternative choices (stage 3) and evaluate their level of satisfaction (stage 5) (H5). On the contrary, 'consumers who primarily use laptops to access the internet are more likely to rely more on digital touchpoints to purchase products and brands (H6)'.

## 4. Research Methodology

### 4.1 Digital Touchpoints Selection

To assess the perceived importance of alternative touchpoints in the consumers' buying process, the research instrument included a comprehensive list of digital touchpoints and buying stages.

Based on a thorough review of existing literature, the study employed the digital touchpoints' typology introduced by Straker et al. (2015). Although the original list consists of thirty-four touchpoints, the present research included twenty-four that exceeded a minimum of 10% usage rate as per the Straker et al. (2015) study. The final list of twenty-five touchpoints included in the research instrument was compiled by adding 'text messaging' (e.g., SMS, Viber, Messenger and What's Up).

It should be mentioned that the original groupings of individual touchpoints into functional, social, community and corporate (Straker et al., 2015) was retained, and text messaging was considered to belong to the functional category due to its increased similarity with email (Trappey and Woodside, 2005). This categorization is better explained on the following paragraphs.

### 4.2 Digital Touchpoints Typologies

#### Functional

This is run by one user or the company. It has medium to low interaction with the customers and this commonly happens through the ability to post comments, email enquiries or set up a chat. Their content services purposes like providing information, support, revenue and promotion. Some example touchpoints, belonging to this topology are: Website, Podcasts, Tutorials, Application, Online Store, Live Chat, Web Enquiry, Emails, etc.

#### Social

An administrator runs this specific touchpoint. He can delete and block users. There is a high user interaction and ability to post and respond directly to comments in real time. There might be a limit on number of characters. This kind of topology describes touchpoints that rely on user interaction and when these users interact or like a company or brand profile, they often expect something in return. Overall, the purpose of social touchpoints is the interaction and the diversion of the participants while posting content for information and promotion purposes.

#### Community

Touchpoint is run by a group of users. There are features as privacy settings. Customers can comment and rate the posts. This form of touchpoints is driven by interest aligned with the company objective. Community topology touchpoints are the YouTube, Vimeo, Forums, Blogs, etc.

#### Corporate

This digital channel typology, groups all the touchpoints whose main characteristic is the one-way engagement from company to customer or customer to the company, taking into account that there is no cross-interaction possible between company and customer. Typical examples in this typology are the digital magazines, digital catalogues, Frequently Asked Questions, Digital Campaigns, Digital Loyalty Programs, Digital Media Releases, etc.

### 4.3 Questionnaire

Participants were asked to indicate, on a rate from one (not at all) to five (very much), the extent to which they rely on each of the twenty-five touchpoints to recognize a need, search for product information, evaluate alternative choices, make purchase decisions and evaluate their post-purchase level of satisfaction. Consumer reliance on individual touchpoints was measured for each of the five stages of the Engel, Kollat and Blackwell (1968) model, and the exact choice of words for each stage was derived from existing literature on the subject (i.e., Ashman et al., 2015; Kotler et al., 2017).

<b>SECTION B: Suitability of different digital touchpoints for each stage of the consumer buying process. This section is repeated for each stage of consumer buying process.</b>					
Please make a note of the degree to which you rely on each of the following digital touchpoints for each stage of the consumer buying process.					
	Not at all	A little bit	More or less	Very	Very Much
1. Websites	1	2	3	4	5
2. Podcasts	1	2	3	4	5
3. Tutorials	1	2	3	4	5
4. Mobile applications	1	2	3	4	5
5. Online stores	1	2	3	4	5
6. Live Chat	1	2	3	4	5
7. Web enquiries	1	2	3	4	5
8. E-newsletters	1	2	3	4	5
9. Email	1	2	3	4	5
10. LinkedIn	1	2	3	4	5
11. Facebook	1	2	3	4	5
12. Twitter	1	2	3	4	5
13. Instagram	1	2	3	4	5
14. Pinterest	1	2	3	4	5
15. Google My Business	1	2	3	4	5
16. Forums	1	2	3	4	5
17. Blogs	1	2	3	4	5
18. YouTube	1	2	3	4	5
19. Digital media releases	1	2	3	4	5
20. Digital corporate reports	1	2	3	4	5
21. Digital feedback forms	1	2	3	4	5
22. Frequently asked questions (FAQ)	1	2	3	4	5
23. Digital advertisements	1	2	3	4	5
24. Digital membership	1	2	3	4	5
25. Text messaging	1	2	3	4	5

Table 1 Questionnaire Section B

For start, the instrument included three questions measuring demographics (i.e., age, biological sex and level of education), one question measuring the frequency of internet usage.

<b>SECTION A: Personal characteristics of participants</b>					
<b>A1. Biological Sex</b>	1. Man		Woman		
<b>A2. Age</b>		<i>(In years, e.g., '32')</i>			
<b>A3. Education</b>	4 Categories of Education				
<b>A4. Internet usage frequency</b>	<b>Not at all</b>	<b>A little bit</b>	<b>More or less</b>	<b>Very</b>	<b>Very much</b>
	1	2	3	4	5

Table 2 Questionnaire Section A

Lastly one more question was included regarding the usage frequency of four popular types of digital devices (i.e., smartphones, desktops, laptops and tablets). Inclusion of such variables served the purpose of examining the potential impact of consumer demographics, internet usage and digital device preferences on consumers' reliance on digital touchpoints throughout the buying process.

<b>SECTION C: Usage frequency of four popular types of digital devices</b>					
How often do you use the following devices to access the internet?					
	<b>Not at all</b>	<b>A little bit</b>	<b>More or less</b>	<b>Very</b>	<b>Very much</b>
<b>Smartphone</b>	1	2	3	4	5
<b>Desktop</b>	1	2	3	4	5
<b>Laptop</b>	1	2	3	4	5
<b>Tablet</b>	1	2	3	4	5

Table 3 Questionnaire Section C

#### 4.4 Sampling Method

The research instrument was distributed in electronic format during October 2021 and the final study sample consisted of 92 usable questionnaires, satisfying the minimum sample size for the methods of statistical analyses employed (Hair et al. 2014).

Because the present study attempts to investigate the perceptions of Greek consumers about digital touchpoints and channels, the study's population includes all residents of Greece who use digital devices to regularly access the internet. Thus, due to the considerable size of the target population and the lack of a complete sampling frame, the study employed a convenience sampling method.

#### 4.5 Generational Divide

There is a lot of research that has been done on measuring public attitudes and their reaction and perception on key issues of our society across demographic groups. A certain point of view or better grouping researchers do to understand these differences is that of generation. Generation view provides a way to understand how different formative experiences interact with the life-cycle and aging process to shape people's views of the world. Today the following generations are officially recognized by researchers.

Generation Alpha is the first to be born entirely in the 21st century. Most of its members are children of millennials. Its members' interest is increasingly focused on smart technology with the interest in television diminishing. Studies show that allergies, obesity and health problems related to screen exposure time have become more prevalent among children of this generation in recent years.

Generation Z: A characteristic of these people is that they were born with access to the internet and do not know what the world was like without it. In fact, in research that had been done, the overwhelming percentage of Z had answered that in a house they consider the existence of internet to be more urgent than the existence of a toilet. It is considered certain that this generation will perform many functions electronically (teleworking, distance learning, etc.).

Millennials: Born between 1981 – 1996. This generation is characterized from the increased level of use of internet, mobile devices and social media.

Generation X: 1965 – 1980 In this generation children considered to have a more liberated childhood with less surveillance from the adults than other generations. Even if this generation has been characterized to be as a little disappointed and lazy, most people have succeeded a great balance between work and social life.

Boomers: Born between 1946 – 1964. Baby boomers were richest and in a better physical condition than others. They lived in a after war world that was changing fast in a better way. They are accused for overconsumption. Baby boomers have taken their name from the huge increase in births that took place as after the war there was hopefulness.

Silent Generation: Born between 1925 – 1945. This generation took its name because they grew up as children feeling that they don't have the right to express their desires and wants. They worked hard to create the world after the war and they did this without searching for glory or professional recognition but in order to provide food for themselves and their

families. They value family life, routine, simple pleasures and are grateful for what they have accomplished.

#### 4.6 Participants' Personal Characteristics

Even though the final sample cannot be considered as representative of the target population, the study attempted to include a satisfactory number of consumers belonging in Generation 'X', 'Y' (i.e., 'Millennial') and 'Z', to allow for meaningful statistical comparisons.

<b>Generation</b>			
<b>Variable</b>	<b>Participant's responses</b>		
Generation (based on age)	60,9% (Generation Z)	23,9% (Millennials)	15,2% (Generation X)

Table 4 Participants' Generation

As per Table 5, out of the 92 consumers, the majority identified as female (64,1%), belonged to Generation Z (i.e., they were born after 1996) (60,9%).

<b>Biological Sex</b>		
	Frequency	Percent
Men	33	35,9%
Women	59	64,1%
Total	92	100,0%

Table 5 Participants' Biological Sex

As for the education 65,2% had university-level education (i.e., Bachelor, Master or PhD degrees).

<b>Educational Level</b>		
	Frequency	Percent
Primary or Secondary	30	32,6
Postsecondary	2	2,2
Bachelor Degree	43	46,7
Master and/or PhD	17	18,5
Total	92	100,0

Table 6 Participants' Educational Level

Overall, participants reported very frequent internet usage (4,66 / 5)

<b>Internet Usage</b>	
Number of Participants	92
Mean	4,66

Table 7 Participants' Internet Usage

Also, participants preference towards smartphones (4,67 / 5) and laptops (3,62 / 5).

<b>Smartphone Usage</b>	
Number of Participants	92
Mean	4,67

Table 8 Participants' Smartphone Usage



In contrast, they indicated infrequent usage of desktops (2,15 / 5) and tablets (1,70 / 5).

<b>Tablet and Desktop Usage</b>		
	Usage frequency of Tablet	Usage frequency of Desktop
Mean	1,70	2,15

*Table 9 Participants' Desktop Usage frequency*

In view of the respondents' characteristics, it appears that the sample consists of individuals who are experienced internet users, proficient in the use of digital devices and therefore able to express informed opinions about the importance of digital touchpoints.

However, it should be noted that in comparison to the target population, females and younger individuals appear to be overrepresented in the sample.

<b>Variable</b>	<b>Participants' responses</b>		
Biological sex	35,9% (male)	64,1% (female)	
Mean age	27 years		
Generation (based on age)	60,9% (Generation Z)	23,9% (Millennials)	15,2% (Generation X)
Educational Level	34,8% (up to postsecondary)	46,7% (Bachelor)	18,5% (Master or PhD)

*Table 10 Participants' Personal Characteristics*

## 5. Analysis and Results

### 5.1 Methods Used

The methods of statistical analyses applied in the present study were driven by hypotheses and the measurement scale of variables. Since reliance on the twenty-five digital touchpoints was measured with Likert-type items, bivariate relationships among variables of interest were measured with non-parametric tests (Field, 2013).

Considering the hypotheses of the present study, H1 was assessed with univariate analysis (i.e., descriptive statistics), while H2 to H6 were tested with bivariate tests (i.e., Kruskal-Wallis and Mann-Whitney, depending on whether the independent variable was dichotomous or categorical with more than two response categories) (Field, 2013).

### 5.2. Univariate Analyses

#	Reliance on Digital Touchpoints	Need Recognition	Information Search	Evaluation of Alternatives	Purchase Decision	Post purchase Evaluation	Average
1	Corporate websites	<b>3,57</b>	<b><u>4,00</u></b>	<b><u>3,84</u></b>	<b><u>3,87</u></b>	<b><u>3,08</u></b>	<b>3,67</b>
2	Podcasts	1,77	1,75	1,76	1,83	1,48	1,72
3	Tutorials	2,52	2,6	2,45	2,62	1,99	2,43
4	Mobile applications	2,97	2,76	2,59	2,72	2,39	2,68
5	Online stores	<b>3,88</b>	<b>3,71</b>	<b>3,65</b>	<b>3,6</b>	2,97	<b>3,56</b>
6	Live chat	2,28	2,34	2,36	2,26	2,42	2,33
7	Web enquiries	<b>3,29</b>	<b>3,29</b>	<b>3,14</b>	<b>3,16</b>	2,38	<b>3,05</b>
8	E-news letters	2,25	1,93	1,9	1,85	1,79	1,95
9	Email	2,29	2,12	1,96	1,89	2,11	2,07
10	LinkedIn	1,4	1,25	1,23	1,26	1,24	1,28
11	Text Messaging	2,37	2,1	2,15	1,93	2,07	2,12
12	Facebook	3,00	2,86	2,61	2,73	2,68	2,78
13	Twitter	1,38	1,41	1,43	1,40	1,46	1,42
14	Instagram	<b>3,39</b>	<b>3,13</b>	2,96	<b>3,1</b>	2,95	<b>3,10</b>
15	Pinterest	1,78	1,78	1,72	1,72	1,57	1,71

Notes: (1) Mean values are presented; (2) values exceeding the midpoint of the five-point scale employed (i.e., '3') appear in bold and are assumed to indicate consumer reliance on the corresponding touchpoint; (3) the value of the most significant digital touchpoint in each stage of the buying process (i.e., column) appears in bold and underlined

Table 11 Univariate Analysis First Table

#	Reliance on Digital Touchpoints	Need Recognition	Information Sea	Evaluation of Alternatives	Purchase Decision	Post purchase Evaluation	Average
16	Google My Business	1,33	1,37	1,41	1,45	1,41	1,39
17	Forums	1,85	2,05	2,17	2,18	2,08	2,07
18	Blogs	1,93	2,02	2,01	2,03	1,86	1,97
19	YouTube	<b>3,16</b>	<b>3,34</b>	<b>3,18</b>	<b>3,14</b>	2,38	<b>3,04</b>
20	Digital media releases	1,79	1,67	1,76	1,70	1,58	1,70
21	Digital corporate reports	1,57	1,52	1,54	1,61	1,53	1,55
22	Digital feedback forms	1,73	1,67	1,91	1,92	2,14	1,88
23	FAQ	1,91	2,15	2,04	2,07	1,85	2,00
24	Digital advertisements	2,59	2,43	2,23	2,28	1,79	2,27
25	Digital memberships	1,88	1,64	1,70	1,62	1,58	1,68
<p>Notes: (1) Mean values are presented; (2) values exceeding the midpoint of the five-point scale employed (i.e., '3') appear in bold and are assumed to indicate consumer reliance on the corresponding touchpoint; (3) the value of the most significant digital touchpoint in each stage of the buying process (i.e., column) appears in bold and underlined</p>							

Table 12 Univariate Analysis Second Table

## Reliance per Stage

### Stage 1

Descriptive analysis of participants' perceived importance of alternative digital touchpoints (Table 2) indicated that to recognize a need, consumers rely on online stores (3,88 / 5), corporate websites (3,57 / 5), Instagram (3,39 / 5), web enquiries (3,29 / 5) and YouTube (3,16 / 5).

### Stage 2

To search for product information, consumers turn to corporate websites (4,00 / 5), online stores (3,71 / 5), YouTube (3,34 / 5), web enquiries (3,29 / 5) and Instagram (3,13 / 5).

### Stage 3

For the task of evaluating alternative choices, consumers place their emphasis on corporate websites (3,84 / 5), online stores (3,65 / 5), YouTube (3,18 / 5) and web enquiries (3,14 / 5).

### Stage 4

Subsequently, in the purchase stage, consumers report reliance on corporate websites (3,87 / 5), online stores (3,60 / 5), web enquiries (3,16 / 5), YouTube (3,14 / 5) and Instagram (3,10 / 5).

### Stage 5

Lastly, to evaluate their level of satisfaction after having made a purchase, consumers demonstrate limited reliance only on corporate websites (3,08 / 5).

## The Most Important Touchpoints

Overall, these findings suggest that throughout the buying process, consumers emphasize the same digital touchpoints (i.e., corporate websites, online stores, Instagram, web enquiries and YouTube). Although the relative importance of said touchpoints may slightly differ among stages of the buying process, participants seem to, more or less, rely on the aforementioned five touchpoints.

	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>	<b>Stage 4</b>	<b>Stage 5</b>
Corporate websites	<b>3,57</b>	<b>4,00</b>	<b>3,84</b>	<b>3,87</b>	<b>3,08</b>
Online stores	<b>3,88</b>	<b>3,71</b>	<b>3,65</b>	<b>3,60</b>	2,97
Web enquiries	<b>3,29</b>	<b>3,29</b>	<b>3,14</b>	<b>3,16</b>	2,38
Instagram	<b>3,39</b>	<b>3,13</b>	2,96	<b>3,10</b>	2,95
YouTube	<b>3,16</b>	<b>3,34</b>	<b>3,18</b>	<b>3,14</b>	2,38

Table 13 The 5 most important digital touchpoints

However, contrary to the first four stages of the buying process, consumers do not appear to place importance on any of the digital touchpoints included in the study with respect to post-purchase evaluation.

Considering individual touchpoints, corporate websites emerged as the most important touchpoint for consumers for information search, evaluation of alternatives and purchase decisions. Moreover, websites were the only touchpoint of even limited importance to consumers for the post-purchase evaluation stage. Online stores were the primary digital touchpoint consumers associate with need recognition.

With respect to the remaining individual touchpoints of significance, web inquiries were perceived as moderately important for need recognition and information search, Instagram was deemed moderately important for need recognition and YouTube for information search. Overall, given the limited variations in the digital touchpoints on which consumers rely throughout the buying process, H1 appears to be largely unsupported.

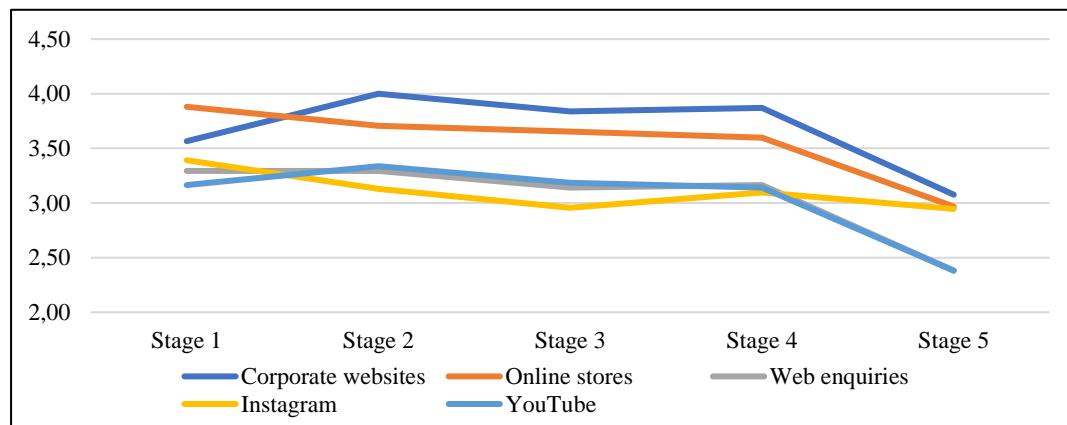


Figure 2 Line graph of the most important touchpoints through the buying stages

### 5.3 Bivariate Analyses

In bivariate analysis we observe the relationship between a dependent and an independent value. The independent values in our research are the personal characteristics of the participants (biological sex, generation, educational level) plus the mean usage of specific devices. (Laptop, Smartphone, Desktop) The dependent values in our research, are the mean values usage of each digital touchpoint for each stage of the buying process.

First, for each independent value, we make a test in order to find which relationships with dependent values are statistically significant and worth examining. This test we follow is either the Mann-Whitney U Test or the Kruskal-Wallis Test. Those tests examine if the null hypothesis  $H_0$  (The distribution of Reliance on the digital touchpoint for current stage is the same across categories of the independent value) is accepted or rejected. The values denoting that there is a statistically significant relationship are highlighted with orange color.

Then we find the mean values of use for each digital touchpoint that are statistically significant (highlighted in blue color). Finally, from those statistically significant values, we choose only those which have a value more than 3 out of 5 and seem to strongly affect the consumer in his buying process.

#### Biological Sex

The results of the bivariate analyses (Table 14) suggest that consumer reliance on digital touchpoints depends on users' demographic characteristics. Females appear more likely to rely on Instagram to identify 7 potential needs (3,68 / 5) whereas males demonstrate increased reliance on YouTube to identify needs (3,73 / 5), search for product information (3,76 / 5), evaluate alternative options (3,76 / 5) and make purchase decisions (3,85 / 5).

#### Generation

Generation Z consumers appear significantly more reliant on Instagram to identify needs (3,82 / 5), search for product information (3,64 / 5) and make purchase decisions (3,54 / 5). They are also more reliant on YouTube to identify needs (3,45 / 5), evaluate alternative options (3,54 / 5) and make purchase decisions (3,36 / 5). Lastly, Generation Z consumers exhibit greater reliance on websites to engage in post-purchase evaluations (3,38 / 5).

#### Educational Level

Educational level did not emerge as a significant factor affecting consumer reliance on digital touchpoints throughout the buying process. Consumers holding Master or PhD degrees appear to only rely significantly more on web inquiries to search for brand or product-related information (4,06 / 5).

Overall, results suggest that individual users who belong in younger generations report greater reliance on all important digital touchpoints throughout the buying process, thus providing evidence to support  $H_2$ . On the other hand, because educational level was only associated with greater use of web enquiries during the second stage of the buying process,  $H_3$  appears to be unsupported.

EKB Stage	Digital Touchpoints	Total Sample	Biological Sex		Generation			Educational Level		
			Male	Female	X	Y	Z	Up to post-secondary	BA / BSc	MA / MSc / PHD
1	Reliance on Instagram	3,39	2,88	3,68	2,43	2,91	3,82	-	-	-
	Reliance on YouTube	3,16	3,73	2,85	2,64	2,77	3,45	-	-	-
2	Reliance on web enquiries	3,29	-	-	-	-	-	3,19	3,07	4,06
	Reliance on Instagram	3,13	-	-	1,9	2,5	3,6	-	-	-
	Reliance on YouTube	3,34	3,76	3,10	-	-	-	-	-	-
3	Reliance on YouTube	3,18	3,76	2,86	2,00	3,05	3,54	-	-	-
4	Reliance on Instagram	3,10	-	-	2,1	2,5	3,5	-	-	-
	Reliance on YouTube	3,14	3,85	2,75	2,14	3,23	3,36	-	-	-
5	Reliance on websites	3,08	-	-	2,79	2,50	3,38	-	-	-
	Sample size (n)	92	33	59	14	22	56	32	43	17

Notes: (1) Mean values of statistically significant differences between groups ( $p < 0,05$ ) are presented; (2) Between group differences for each digital touchpoint were assessed with series of Mann Whitney U or Kruskal-Wallis H Tests.

Table 1414 Bivariate Analysis Personal Characteristics Summary

### Internet Usage

As per Table 15, individuals who use the internet very frequently (i.e., several times daily) demonstrate greater reliance on web inquiries to identify potential needs (3,51 / 5). However, because they do not place increased emphasis on digital touchpoints in any of the other four stages of the buying process, there is not sufficient evidence to support H4.

### Smartphone Usage

Avid smartphone users demonstrate greater reliance on online stores (4,00 / 5) and Instagram (3,59 / 5) to identify needs, web enquiries (3,52 / 5) to search for information, websites to evaluate alternatives (4,09 / 5), as well as online stores (3,77 / 5) and Instagram (3,30 / 5) to make purchase decisions. Thus, because individuals who primarily use their smartphone to access the internet demonstrate dependence on certain digital points for information search and purchase decisions, H5 appears to be unsupported.

### Internet, Smartphone and Laptop Usage Synopsis

Heavy laptop users rely substantially more on web inquiries for need identification (3,86 / 5) and information search (3,91 / 5), as well as on YouTube to evaluate alternative choices (3,73 / 5). Therefore, as they do not appear to exhibit significantly more reliance on digital touchpoints to make purchases, H6 is unsupported.

EKB Stage	Digital Touchpoints	Total Sample	Internet Usage		Smartphone Usage		Laptop Usage	
			Very Frequent	Other	Very Frequent	Other	Very Frequent	Other
1	Reliance on web enquiries	3,29	3,51	2,67	-	-	3,86	3,11

	Reliance on online stores	3,88	-	-	4,00	3,52	-	-
	Reliance on Instagram	3,39	-	-	3,59	2,78	-	-
2	Reliance on web enquiries	3,13	-	-	3,52	2,61	3,91	3,10
	Reliance on websites	3,87	-	-	4,09	3,74	-	-
3	Reliance on YouTube	3,18	-	-	-	-	3,73	3,01
	Reliance on online stores	3,60	-	-	3,77	3,09	-	-
4	Reliance on Instagram	3,10	-	-	3,30	2,48	-	-
	Sample Size (n)	92	68	24	69	23	22	70

Notes: (1) Mean values of statistically significant differences between groups ( $p < 0,05$ ) are presented; (2) Between group differences for each digital touchpoint were assessed with series of Mann Whitney U-Tests.

*Table 15 Bivariate Analysis of Usage Frequency of Popular Devices - Summary*

### Personal Characteristics and Usage of Digital Devices Correlations

Prior to the interpretation of findings and given the absence of multivariate analyses in the present study, it was deemed necessary to examine any interrelationships among the independent variables included in the preceding statistical analyses.

Table 16 shows that older consumers demonstrate lower usage frequency of smartphones ( $\rho = -0,21$ ,  $p = 0,05$ ) and greater usage frequency of desktops ( $\rho = 0,24$ ,  $p = 0,02$ ). Consumers which have attained higher educational levels are older ( $\rho = 0,52$ ,  $p = 0,00$ ) and therefore associated with less use of smartphones ( $\rho = -0,22$ ,  $p = 0,04$ ). Higher usage frequency of the internet is associated with higher use of smartphones ( $\rho = 0,47$ ,  $p = 0,00$ ) and laptops ( $\rho = 0,31$ ,  $p = 0,00$ ), suggesting that smartphones and laptops are the main digital devices through which tech-savvy consumers access the internet and interact with brands.

Correlations Spearman's rho								
		Age	Generation	Educational Level	Internet Usage Frequency	Usage frequency of Smartphone	Usage frequency of Desktop	Usage frequency of Laptop
Age	Correlation Coefficient	1,00	0,92**	0,52**	0,04	<b>-0,21*</b>	<b>0,24*</b>	0,04
	Sig. (2-tailed)		0,00	0,00	0,68	<b>0,05</b>	<b>0,02</b>	0,69
Generation	Correlation Coefficient	<b>0,92**</b>	1,00	0,487**	0,07	-0,17	0,23*	-0,02
	Sig. (2-tailed)	<b>0,00</b>		0,00	0,53	0,10	0,03	0,86
Educational Level	Correlation Coefficient	<b>0,52**</b>	0,49**	1,00	0,06	0,00	0,08	0,11
	Sig. (2-tailed)	<b>0,00</b>	0,00		0,59	0,04	0,44	0,31



Internet Usage Frequency	Correlation Coefficient	0,04	0,07	0,06	1,00	0,47**	0,17	0,31**
	Sig. (2-tailed)	0,68	0,53	0,59		0,00	0,11	0,00
Usage Frequency of Smartphone	Correlation Coefficient	<b>-0,20*</b>	-0,17	<b>-0,22*</b>	<b>0,47**</b>	1,00	0,11	0,38**
	Sig. (2-tailed)	<b>0,05</b>	0,10	<b>0,04</b>	<b>0,00</b>		0,31	0,00
Usage frequency of Desktop	Correlation Coefficient	<b>0,24*</b>	0,23*	0,08	0,17	0,11	1,00	-0,07
	Sig. (2-tailed)	<b>0,02</b>	0,03	0,44	0,11	0,31		0,50
Usage frequency of Laptop	Correlation Coefficient	0,04	-0,02	0,11	<b>0,31**</b>	<b>0,38**</b>	-0,07	1,00
	Sig. (2-tailed)	0,69	0,86	0,31	<b>0,00</b>	<b>0,00</b>	0,50	
**. Correlation is significant at the 0.01 level (2-tailed).				*. Correlation is significant at the 0.05 level (2-tailed).				
Notes: Statistically significant correlations ( $p < 0,05$ ) appear in bold; (2) Biological sex and usage frequency of tablet were not correlated with any of the variables in the table and are therefore not presented								

Table 16 Spearman's rho Correlations

## 6. Discussion and Conclusion

The present study showed that consumers exhibit increased reliance on a particular selection of digital touchpoints throughout their buying journey. However, the significant impact of gender and generation on digital touchpoint reliance may provide important directions for digital marketing practice. Although research on the subject is scarce, the study's findings appear to challenge existing theoretical expectations about the uses and effect of different digital devices on consumers' perceived importance of digital touchpoints (Kannan and Li, 2017; Lemon and Verhoef, 2016).

Consumer reliance on digital touchpoints does not appear to be significantly affected by the use of smartphones or laptops, and heavy smartphone users were found to be more likely to rely on digital touchpoints to make purchases than laptop users. Hence, it is suggested that marketers acknowledge smartphones as a digital platform which consumers are likely to employ throughout the buying process and not just for information search.

With respect to personal characteristics, results did not confirm differences in digital touchpoint reliance on the basis of educational level (Mangold and Faulds, 2009). Although highly educated consumers (e.g., Master or PhD degree holders) may desire to retain control over the brand information they access, as evinced by their substantial dependence on web enquiries, the present research did not detect any other significant differences.

On the other hand, in line with existing literature about the importance of age (i.e., Kiel, 2005; Yu et al., 2016), generation appears to shape consumer behavior on digital media, as younger consumers rely significantly more on digital touchpoints throughout the buying process than older consumers.

Apart from its theoretical value, the identification of differences in user preferences of digital touchpoints based on gender and generation may direct digital marketing planning and targeting with appropriate tactics. In view of the study's findings, marketers can develop Instagram content to enhance need identification among female consumers and consequently motivate them to enter the buying process. In contrast, brands are advised to use YouTube to provide detailed information and demonstrate the superiority of products targeted at male consumers, with the purpose of instigating the buying process and facilitating user progression up to the purchase stage.

The present study confirms that brands ought to use digital touchpoints, and in particularly Instagram and YouTube, as primary methods of interaction with Generation Z consumers. Finally, limited consumer reliance on digital touchpoints in the post-purchase stage of the buying process suggests that traditional channels of interaction with consumers remain significant in the digital era. Considering that post-purchase evaluation is critical for the establishment of profitable and ongoing relationships with market segments, brands ought to acknowledge the importance of traditional channels in their efforts to limit post-purchase conflict (Kotler et al., 2017).

## 7. Limitations and Future Research Directions

The present research serves as a preliminary effort in studying the perceived importance of digital touchpoints throughout the buying process. The small study sample and lack of probability sampling limits external validity of findings.

Furthermore, examination of consumer perceptions about their reliance on digital touchpoints rather than actual consumer behavior may have been a source of response bias (Furnham, 1986). In view of the study's limitations, future research efforts could investigate larger and more representative samples, collect behavioral data and conduct comparative examinations of specific business sectors.

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