

# Consumer Reliance on Alternative Digital Touchpoints throughout the Buying Process

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*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 92 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 biological sex 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.*

**Keywords:** digital marketing, digital touchpoints, digital devices, consumer behaviour, decision making, buying process

**JEL Classification:** M31

## 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

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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 (Leeflang 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 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, 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' experiences 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. Consumer Buying Process**

Consumer behaviour 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).

The buying process begins when consumers recognize a problem or need, 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). Consumers then proceed to seek information relating to their need from personal, commercial, public and/or experiential sources (Kotler et al., 2017). 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). Finally, 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). Other 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 of 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). Given that 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, 2021a), 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 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 (H<sub>1</sub>).*

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 (H<sub>2</sub>), less educated (H<sub>3</sub>) and are frequent internet users (H<sub>4</sub>).*

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) (H<sub>5</sub>). 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 (H<sub>6</sub>).*

## **4. Research Methodology**

### **4.1. Measurement and Research Instrument**

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).

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).

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

## 4.2. Data Collection and Sample

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. 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.

As per Table 1, 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%) and had university-level education (i.e., Bachelor, Master or PhD degrees) (65,2%). Overall, participants reported very frequent internet usage (4,66 / 5), and preference towards smartphones (4,67 / 5) and laptops (3,62 / 5). In contrast, they indicated infrequent usage of desktops (2,15 / 5) and tablets (1,70 / 5). 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.

Table 1. Sample Characteristics

Variable	Participants' responses		
Biological sex	35,9% (male)	64,1% (female)	
Mean age	27 years		
Generation (based on age)	60,9% (Generation Z)	23,9% (Millennial)	15,2% (Generation X)
Educational level	34,8% (up to postsecondary)	46,7% (Bachelor)	18,5% (Master or PhD)
Internet usage frequency	Mean value 4,66 / 5 (very frequent)		
Use of Smartphone	Mean value 4,67 / 5 (very frequent)		
Laptop usage	Mean value 3,62 / 5 (frequent)		
Use of Desktop	Mean value 2,15 / 5 (infrequent)		
Tablet usage	Mean value 1,70 / 5 (very infrequent)		

## 5. Analysis and Results

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, H<sub>1</sub> was assessed with univariate analysis (i.e., descriptive statistics), while H<sub>2</sub> to H<sub>6</sub> 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).

### 5.1. Univariate Analyses

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). 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). 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). 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). Lastly, to evaluate their level of satisfaction after having made a purchase, consumers demonstrate limited reliance only on corporate websites (3,08 / 5). 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. 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,  $H_1$  appears to be largely unsupported.

Table 2. Consumers' Perceived Reliance on Alternative Digital Touchpoints

#	Digital Touchpoints	Need Recognition	Information Search	Evaluation of Alternatives	Purchase Decision	Post-purchase Evaluation	Average
1	Corporate websites	3,57	<b>4,00</b>	<b>3,84</b>	<b>3,87</b>	<b>3,08</b>	3,67
2	Podcasts	1,77	1,75	1,76	1,83	1,48	1,72
3	Tutorials	2,52	2,60	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>	3,71	3,65	3,60	2,97	3,56
6	Live chat	2,28	2,34	2,36	2,26	2,42	2,33
7	Web enquiries	3,29	3,29	3,14	3,16	2,38	3,05
8	E-news letters	2,25	1,93	1,90	1,85	1,79	1,95
9	Email	2,29	2,12	1,96	1,89	2,11	2,07
10	LinkedIn	1,40	1,25	1,23	1,26	1,24	1,28
11	Text messaging	2,37	2,10	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	3,39	3,13	2,96	3,10	2,95	3,10
15	Pinterest	1,78	1,78	1,72	1,72	1,57	1,71
16	Google MyBusiness	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	3,16	3,34	3,18	3,14	2,38	3,04
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

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.

## 5.2. Bivariate Analyses

The results of the bivariate analyses (Table 3) suggest that consumer reliance on digital touchpoints depends on users' demographic characteristics. Females appear more likely to rely on Instagram to identify 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 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 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<sub>2</sub>*. 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<sub>3</sub> appears to be unsupported*.

Table 3. Demographic Factors Affecting Consumer Reliance on Alternative Digital Touchpoints

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	-	-	1,93	2,59	3,64	-	-	-
	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	-	-	2,14	2,59	3,54	-	-	-
	Reliance on YouTube	3,14	3,85	2,75	2,14	3,23	3,36	-	-	-
5	Reliance on corporate 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.

As per Table 4, 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 H<sub>4</sub>*. 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, *H<sub>5</sub> appears to be unsupported*. 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, *H<sub>6</sub> is unsupported*.

Table 4. Digital Preferences Affecting Consumer Reliance on Alternative Digital Touchpoints

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
3	Reliance on websites	3,87	-	-	4,09	3,74	-	-
	Reliance on YouTube	3,18	-	-	-	-	3,73	3,01
4	Reliance on online stores	3,60	-	-	3,77	3,09	-	-
	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.

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 5 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 who 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.

Table 5. Non-parametric correlations between independent variables

		Age	Generation	Educational Level	Internet Usage Frequency	Usage frequency of Smartphone	Usage frequency of Desktop	Usage frequency of Laptop
Age	Rho	1,00	<b>0,92</b>	<b>0,52</b>	0,04	<b>-0,21</b>	<b>0,24</b>	0,04
	p		<b>0,00</b>	<b>0,00</b>	0,68	<b>0,05</b>	<b>0,02</b>	0,69
Generation	Rho	<b>0,92</b>	1,00	<b>0,49</b>	0,07	-0,17	<b>0,23</b>	-0,02
	p	<b>0,00</b>		<b>0,00</b>	0,53	0,10	<b>0,03</b>	0,86
Educational Level	Rho	<b>0,52</b>	<b>0,49</b>	1,00	0,06	<b>-0,22</b>	0,08	0,11
	p	<b>0,00</b>	<b>0,00</b>		0,59	<b>0,04</b>	0,44	0,31
Internet Usage Frequency	Rho	0,04	0,07	0,06	1,00	<b>0,47</b>	0,17	<b>0,31</b>
	p	0,68	0,53	0,59		<b>0,00</b>	0,11	<b>0,00</b>
Usage frequency of Smartphone	Rho	-	-0,17	<b>-0,22</b>	<b>0,47</b>	1,00	0,11	<b>0,38</b>
	p	<b>0,05</b>	0,10	<b>0,04</b>	<b>0,00</b>		0,31	<b>0,00</b>
Usage frequency of Desktop	Rho	<b>0,24</b>	<b>0,23</b>	0,08	0,17	0,11	1,00	-0,07
	p	<b>0,02</b>	<b>0,03</b>	0,44	0,11	0,31		0,50
Usage frequency of Laptop	Rho	0,04	-0,02	0,11	<b>0,31</b>	<b>0,38</b>	-0,07	1,00
	p	0,69	0,86	0,31	<b>0,00</b>	<b>0,00</b>	0,50	

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.

## 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. Although available data indicate the lack of substantial differences in the number of male and female users using Instagram and YouTube (Statista, 2021b; 2021c), the study's findings suggest that these two digital touchpoints can be used for gender-based targeting. Moreover, the present research 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 sample size 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 across different national contexts, and conduct comparative examinations of specific business sectors. Such approaches may require adapting the list of digital touchpoints to sector and/or national particularities. Lastly, to overcome the limitations of survey methodology, researchers may opt to collect behavioral data relating to actual consumer engagement with alternative digital touchpoints.

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