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Management from the Nova School of Business and Economics.

***Which decision-making process step is perceived as being the most challenging when
purchasing a smartphone? A study on Gen Z consumers at the example of the decision-
making process model by Kotler & Keller***

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Table of contents

Abstract.....	iii
List of abbreviations	iv
List of figures.....	iv
List of tables.....	iv
1. Introduction.....	1
2. Literature review	4
<i>2.1 Gen Z characteristics</i>	<i>4</i>
<i>2.2 Gen Z purchasing behavior</i>	<i>5</i>
<i>2.3 Consumer decision-making process model.....</i>	<i>5</i>
<i>2.4 Decision making process influencing factors</i>	<i>9</i>
<i>2.5 Smartphone purchase challenges</i>	<i>10</i>
3. Method	11
<i>3.1 Type of research.....</i>	<i>11</i>
<i>3.2 Sampling</i>	<i>12</i>
<i>3.3 Method of analysis</i>	<i>13</i>
4. Results	15
5. Discussion.....	18
<i>5.1 Theoretical implications</i>	<i>20</i>
<i>5.2 Practical implications</i>	<i>21</i>
<i>5.3 Limitations</i>	<i>23</i>
<i>5.4 Future research outlook.....</i>	<i>23</i>
6. Conclusion	24
References	25
Appendix	v

Abstract

Gen Z, with ~2 bn smartphone users, are the digital natives of today's society, making it the most crucial consumer segment for companies. This thesis aims to understand challenges experienced by Gen Z, in the decision-making process of buying a smartphone. Due to a lack of literature concerning challenges perceived by Gen Z the thesis contributes to research and bares scientific as well as practical relevance. For this purpose, a qualitative approach with a sample of 16 in depth interviews aimed towards Gen Z was pursued. From the eight challenges identified four challenges could be assigned to the purchase decision step which describes the final purchase of a product after prior evaluation. Gen Z perceive is as particularly challenging to decide on a brand and technological specifications and where and how to buy the smartphone. Furthermore, when Gen Z makes their ultimate decision getting influenced by others and the perception of one's social and financial status plays a significant role. Even though companies can hardly change consumers perceptions or influences, they can educate consumers about brand benefits and product configurations through comparative examples and questionnaires. This supports the consumer in making their final decision based on their actual needs and preferences.

Keywords: Generation Z, Decision-making process, Smartphone purchase, Challenges

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List of abbreviations

- Bn Billion
- DMP Decision-making process
- Gen Z Generation Z
- M Million

List of figures

Figure 1: Decision-making process model by Kotler & Keller (2015) 6

List of tables

Table 1: Consolidated results..... 17

Table 2: Overview interview sample v

Table 3: Consolidated coding table..... vii

1. Introduction

“Generation Z cannot imagine a life without a smartphone”

(Wulff 2020, p.01)

A generation is characterised as a group of people viewed collectively, which is shaped by events that occur at the time. It affects and differs from the following generation through its experiences and learnings, creating fundamental gaps in values, attitudes, and mindsets between them. One of these distinguishing characteristics is reflected in consumers’ buying behaviour, a process shaped by technological developments and disruptive forces such as COVID-19 (Williams & Page, 2011). Nowadays, consumers can make purchases from the comfort of their homes with the help of their smartphones. One click on the smartphone and various products are delivered to the end consumer in a short time, sometimes even on the same day. Technological advancements have made this shift possible, boosting sales in the digital world enormously. Global e-commerce sales have risen to over 5.5 bn dollars in 2022, marking a growth of over 400% over the last decade, with a growing forecast for the next years (Statista, 2020). In this environment, the search for information has also developed from consumers gathering information themselves to relying on social networks for this purpose. Thus, these technological developments have created new digital consumers across the globe (European Parliament, 2011).

Generation Z (Gen Z), people born between 1995 and 2010, is characterised as the most connectivity-dependent and technology-intimate demographic in history (McKinsey & Company, 2018). This generation is not called “digital natives” without reason, considering that over 95% (~2 bn people) of Gen Z own a smartphone (Globalwebindex, 2017). According to a study by PWC, Gen Z can be described as tech-savvy and always online, spending on average

four hours per day on their smartphone with a steady upwards trend (PWC, 2020). This is highlighted by the fact that smartphones have become an integral aspect of Gen Z's daily lives. Smartphones are not only used to be active on various social media platforms but also to track sleep, game, stream and do online shopping (Ahmed, 2019). Thus, smartphones increasingly substitute laptops and tablets, making it the most preferred mobile interface for Gen Z. As the average replacement cycle of smartphones is less than three years, consumers must go through the decision-making process (DMP) multiple times when purchasing a new smartphone (Statista, 2017). Within this process, consumers must consider a wide range of options regarding brands, price ranges, features, and specifications (Deka & Dutta, 2016). Additionally, multiple internal and external factors affect this process, making the purchase of a smartphone now more challenging than ever.

The terms “consumer behavior” and “decision-making process” have been well-discussed research topics over the last decade. A wide variety of research papers offer numerous insights based on qualitative and quantitative research methods (Santos & Gonçalves 2021; Peighambari, Sattari, Kordestani, & Oghazi, 2016). Within this, the topic of the DMP of Gen Z consumers has gained some attention, whereas perceived challenges in this process were only narrowly researched so far (Thangavel, Pathak, & Chandra, 2022; Goldring & Azab, 2021; Rahim, Safin, Kheng, Abas, & Ali, 2016; Kaufmann, 2015; Pan, Xu, & Wu, 2017; Büyüközkan & Güteryüz, 2016). It seems that the research attention was focused more on influencing factors rather than fundamental challenges (Rai, 2021; Mohammed, 2018; Ayodele 2016). Furthermore, the combination of perceived challenges of Gen Z consumers when purchasing a smartphone has not been researched. Thus, this thesis significantly contributes to the literature by addressing this specific research gap, highlighting its scientific relevance.

Furthermore, this thesis bears practical relevance for companies in the smartphone industry. Through creating awareness of frequent challenges Gen Z consumers may encounter when purchasing a smartphone, this thesis intends to aid businesses that operate in the smartphone industry. By underlining the challenges identified, companies can take preemptive measures to mitigate their potential adverse effects. Prior research has demonstrated that understanding consumer insights including perceived challenges can facilitate developing stronger client relationships (Mandal, 2021). Therefore, the goal of this thesis is to answer the following research question:

Which decision-making process step is perceived as being the most challenging when purchasing a smartphone? A study on Gen Z consumers at the example of the decision-making process by Kotler & Keller

Various measures must be followed to analyze the research question. After a brief introduction to the subject, a theoretical overview of Gen Z, its purchasing behavior, the DMP model and challenges in the smartphone purchase process will be presented. Using this literature review as a foundation, a qualitative research approach will be used to collect pertinent study data. Interviews identify the challenges encountered in practice with a sample size targeted at Gen Z consumers. The results will then be presented and discussed within the context of this thesis, including earlier findings discovered in the literature. Furthermore, limitations and a future research outlook will be provided. Lastly, a conclusion will be drawn.

2. Literature review

2.1 Gen Z characteristics

The successor generation of the Millennials is called Gen Z. As generations are differentiated by birth years, there are multiple definitions of Gen Z by several publications (Berkup, 2014; McKinsey & Company, 2018; OC&C, 2019). In this thesis, the chronological classification after McKinsey & Company (2018) was used, defining Gen Z born between 1995 and 2010. Since Millennials (born between 1980 and 1994) are the predecessor generation, it could be assumed that the behavioral patterns of both generations are similar. However, Gen Z is significantly different from Millennials with regards to internal characteristics and external relationships to their environment. Studies have shown that Gen Z is characterized as impatient and focused on the present moment. They also have a limited attention span, strong dependence on technology, and an attention deficiency (Agarwal & Vaghela, 2018). As mentioned before, Gen Z is referred to as "digital natives" due to a high affinity for technology products such as smartphones since they were born into a digital world. Thus, Gen Z is the first generation to grow up with smartphones, making interconnectedness a necessity to them (Ahmed, 2019).

They communicate on social networks like WhatsApp or Instagram and spend most of their time in this digital universe. As already mentioned, almost 95% of Gen Z own a smartphone with tablets and laptops following after this (Globalwebindex, 2017). Additionally, these are people who not only frequently use the internet but integrate it into their daily lives. Studies claim that although previous generations utilized the internet for research, Gen Z is consciously socially active and practically lives online. Instead of solely using the internet for communication purposes, Gen Z also uses it to exchange knowledge, watch entertaining content, play online games, and do online shopping. This extensive information search and transfer allows them to choose the best option from a variety of products (Ahmed, 2019).

2.2 Gen Z purchasing behavior

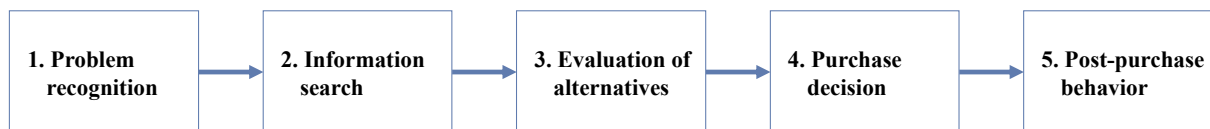
Gen Z's generation-specific values and age-group-typical communication behavior have a corresponding impact on consumption and contact points with brands. In principle, the customer journey of Gen Z is almost fully digital with corresponding digital touchpoints between companies and consumers (Kleinjohann & Reinecke, 2020). Therefore, the first point of contact for Gen Z is most commonly the internet. Before making a purchase, consumers of this generation frequently conduct research and analyze their alternatives. They are known as frugal shoppers who have been molded by economic instability and learned how to discover online discounts at a young age, eager to save money (Brenner, 2022). Furthermore, Gen Z specifically discovers and networks with brands on social media platforms. They seem to be particularly affected by the opinions of influencers or reviews that they find on platforms like Instagram, Facebook, or YouTube. For instance, Instagram is used by 60% of Gen Z to find new companies and products in the US, highlighting that social media is a powerful tool to access information (Voyado, 2022). Consequently, Gen Z has significantly lessened its brand loyalty due to the multitude of options available. According to a study by OC&C (2019), Gen Z trusts global search engines or multi-brand platforms and purchases products where they find the best offer. Besides price, important purchasing criteria include the quality or sustainability of products (Voyado, 2022).

2.3 Consumer decision-making process model

Consumers are constantly involved in DMP for goods and services of any kind. Thus, the actual purchase of a product is the sole tangible result of a process that a consumer goes through with each choice. Therefore, every buying decision is unique and takes a different amount of time and effort.

A common model to describe a purchase decision is the decision-making process model by Kotler & Keller (2015). According to them, this process consists of five steps a consumer goes through, namely *problem recognition (1)*, *information search (2)*, *evaluation of alternatives (3)*, *purchase decision (4)* and lastly, *post-purchase behavior (5)*.

Figure 1: Decision-making process model by Kotler & Keller (2015)



The first step *problem recognition* describes the situation when consumers recognize a need or problem brought about by internal or external factors. An internal factor might relate to consumers' standard needs such as hunger rising to a threshold, meaning changes in the desired or actual status may signal the presence of a problem (Workman & Studak, 2006). In contrast to that, an external factor might occur when consumers consider buying something after seeing, for example, a friend's new car or watch. Moreover, a problem is recognized when a new ideal state is created or dissatisfaction with the actual state is recognized. Furthermore, due to the recurrence of the same or comparable situations, consumers acquire patterns of problem recognition.

Followed by that, the second step is *information search*. In this phase, consumers are particularly alert and become increasingly receptive to new product information. Hence, consumers often go on an active search for information to get to know potential brands, products, and their features (Voramontri & Klieb, 2019). Multiple researchers define four primary information sources. These include commercial (e.g. marketing or websites), experiential (e.g. personal test trials of products), public (e.g. test institutions) and lastly

personal sources (e.g. friends or family) (Cadden & Lueder, 2012). The degree of influence of those information sources can vary and depend on the consumers. Usually, public and personal sources are considered to be particularly effective stimuli (Kotler & Keller, 2006).

The third step *evaluation of alternatives* refers to the process when consumers take the earlier found information of a brand or product, rank it, and then evaluate the alternative brands or products (Qazzafi, 2009). During this step, consumers narrow the alternatives down through creating an evoked set that includes all products considered as desirable (Wirtz & Mattila, 2003). Hence, a final decision is not yet made. This analysis of the collected information and the subsequent evaluation are done individually in consideration of consumer preferences. Thus, there is no uniform evaluation process. Nevertheless, evaluation processes of a cognitive nature are mostly used since it is assumed that consumers evaluate products consciously and rationally. Kotler et. al. (2006) believe that consumers have a utility function describing how strongly the product properties affect the satisfaction of consumers. According to Multhaly (2010) the process of evaluating options can occasionally be demanding, time-consuming, and challenging for consumers. This depends on the level of importance and involvement of the purchase meaning low-cost items only require a low degree of involvement. In contrast, high-cost items such as smartphones warrant a high level of involvement. Respectively, the higher the level of involvement and importance assigned to the product the more challenging and lengthier the evaluation process is (Jain, 2018). Moreover, identifying the perfect good or service to meet consumers' demands can be a challenge because several factors might influence a consumers' purchasing choice. Thus, consumers choose the most important features for them such as price, brand image, functionality or availability to facilitate the decision.

Fourthly, the *purchase decision* step is about consumers deciding to acquire a specific product and includes where and how to buy in terms of availability, place, and price (Stankevich, 2017). From the evoked set, the brand or product that consumers rated highly throughout the evaluation of alternatives step is what they intend to purchase, which might differ from the actual choice (Qazzafi, 2009). Thus, the evoked set serves as the decision basis from which the final choice is made (Turley & LeBlanc, 2015). Furthermore, the preferences for a particular product and the opinions of consumers' relatives or reference groups might impact what product they purchase (Hawkins & Mothersbaugh, 2010). In addition, perceived financial status plays a role, influencing which product consumers buy and how they are perceived by others. This implies that consumers often purchase a more expensive product to not be seen as financially weak in the public eye. Moreover, after Solomon et. al. (2006), consumers frequently utilize decision rules that let them substitute certain dimensions for others to make the purchase decision easier. Consumers frequently rely on heuristics or mental shortcuts that result in a swift decision, especially when minimal problem-solving happens prior to making a choice. For instance, a product with a greater price may be perceived as having higher quality than one with a lower price. However, sometimes, these shortcuts might not be ideal for consumers due to premature selections of the final product.

The final step is the *post-purchase behavior*. After making a purchase, consumers assess and evaluate the products based on their usage and performance, as well as on the opinions of relatives (Stankevich, 2017). At this point, consumers rate whether their expectations were fulfilled, surpassed, or disappointed by their purchase. If the product meets these expectations after the purchase, a feeling of satisfaction or even enthusiasm can arise, and consumers will use the product. Furthermore, if the purchased product exceeds expectations, the chances of repurchasing will be high. In contrast to that, consumers get disappointed if

performance falls short of their expectations after the purchase and look for solutions to reduce their unhappiness or replace the product (Deka & Dutta, 2016).

2.4 Decision making process influencing factors

It is important to take into account that a variety of internal and external factors may have an impact on the DMP. These factors may differ from consumer to consumer but usually include social, personal, cultural or psychological factors (Solomon, Bamossy, Askegaard, & Hogg, 2006; Hemsley-Brown & Oplatka, 2016; Rani, 2014; Rangaiah, 2021). According to the literature the most common ones observed are personal and social factors (Spindler, 2020).

On the one hand, personal factors are considered to be unique to each person. Thus, various internal, personal aspects have an impact on consumers' decisions. Firstly, purchase decisions can be influenced by the occupation and purchasing power of a person. Salamon et al. (2006) describe that consumers' income levels reflect how they view money. Thus, less wealthy people tend to spend their money on necessities like food and clothing rather than expensive designer brands. Secondly, the lifestyle of consumers plays an important role as well because it can reflect how much money they spend or how they live. According to Hemsley-Brown & Oplatka (2016) lifestyle represents a combination of current circumstances, prior experiences and inherited traits. This is crucial as consumers' product preferences are influenced by their way of life. Lastly, age can be seen as an influencing factor as well. It is undeniable that consumers alter their purchases of services and goods over the years (Rani, 2014).

On the other hand, social factors include family, reference groups, and status. These describe the external effects that others may have, either directly or indirectly, on consumers'

purchasing decisions (Rani, 2014). Family members can have a significant influence on consumer behavior since consumers can see how their families utilize specific products and develop an affinity or aversion to them (Qazzafi, 2020). Durmaz (2014) defines reference groups as groups that a person utilizes as a foundation for developing manners or values. They inform the other members of their group about special items, thereby influencing purchase intentions. Lastly, the position consumers occupy in society affects their purchase behaviour. The more status consumers possess, the more it influences what and how much they buy (Rangaiah, 2021). To conclude, it can be said that personal and social factors have the biggest impact on consumer behavior.

2.5 Smartphone purchase challenges

After analyzing the DMP and its influences, this part will outline smartphone purchase challenges found in this process from literature.

A first challenge can be the influence of personal sources. According to Rahim et al. (2016) young people, arguably Gen Z, rely heavily on recommendations from others when purchasing smartphones. This can be challenging because they cannot decide clearly for themselves due to their high influenceability.

Secondly, it can be a challenge for consumers to evaluate several smartphones from their final selection. Since various brands of smartphones in different colors, sizes and specifications are available, it can be challenging for consumers to choose between those and select a final product to purchase (Kaufmann, 2015).

Furthermore, numerous smartphones on the market also give consumers suggestions about their tastes, attitudes and social and financial position – factors that are crucial for young generations like Gen Z. As a result, choosing the right smartphone for consumers becomes a significant decision challenge even when consumers are only interested in smartphones within a specific price range (Büyüközkan & Güleriyüz, 2016).

Another challenge can occur regarding the purchase decision concerning attributes such as quality. Research states that consumers' feelings towards a product's attributes vary because consumers regularly lack the skills necessary to evaluate the quality of goods. They typically complain about information processing challenges and inconsistent product attribute evaluation. Thus, it is possible to predict that consumers will need to put in more time and effort to evaluate information before making judgments about what to buy (Pan, Xu, & Wu, 2017).

3. Method

3.1 Type of research

Two main empirical research approaches are common, namely qualitative, and quantitative research (Choy, 2014). The empirical approach that should be used is highly related to the research question at hand. It seems more appropriate to conduct a qualitative research strategy in this thesis to determine the challenges Gen Z consumers face when purchasing a smartphone. This is due to the fact that qualitative research facilitates the assessment of beliefs, personal experiences and perceptions. Furthermore, it enables the consideration of new perspectives as topics can be adapted, leaving room for additional ways of thinking that can supplement the literature. Hence, quantitative methods were excluded for the purpose of this thesis and a qualitative approach in form of interviews was chosen.

Structured interviews as a form of general interviews are common in multiple published research papers that pursue a qualitative approach. They follow a list of questions that are asked at specific times, much like a questionnaire (Flick, 2009). Those predetermined questions ensure that pertinent subjects are addressed which are crucial for answering the research question. This format allows the interviewer to pose the same questions to each interviewee. Therefore, structured interviews were selected to collect relevant research data.

3.2 Sampling

As the research question only focuses on Gen Z, interviewees born between 1995 and 2010 were sought. To find potential and suitable interviewees four steps were taken. The first step included searching for suitable interviewees on social media platforms such as Xing and LinkedIn among other platforms. In the second step, acquaintances and friends potentially belonging to Gen Z were identified. The third step was about accumulating the interviewees and checking to see whether they belonged to Gen Z. This check allowed purposeful interviews as all requirements of the chosen research method were met. Ultimately, the selected interviewees were contacted. A total of 16 interviews were conducted either physically, by phone or video call. Eight female and eight male interviewees with differing birth years were chosen. Moreover, despite the majority of interviewees being German, other nationalities were also included to enrich the findings. Thus, this mix of genders, ages and nationalities ensures a good diversity of the data collected. This guaranteed that the findings of the interviews were not limited by basic demographic factors. A detailed sample overview can be found in appendix 1.

During the interviews, multiple questions were asked about the interviewee's experience purchasing a smartphone. Using audio recordings to create transcripts of in-depth

interviews and group discussions have become a standard procedure (Rutakumwa, et al., 2019). Transcriptions seek to better comprehend the complexity of things like experiences or feelings. Additionally, they emphasize spoken words from the interviews when evaluating and interpreting the collected data (Pehl & Dresing, 2020). Consequently, after each participant agreed, the interviews were audio recorded and transcribed using Dresing & Pehl's simplified transcription system (Dresing & Pehl, 2018).

Furthermore, the anonymization approach after Saunders and Kitzingers (2014) was used to ensure the data privacy of the interviewees. Therefore, personal names were altered to the point that they cannot be used to identify the person.

Lastly, inclusion and exclusion criteria were based on age when selecting suitable interviewees. For that, it was checked whether the potential interview partners belong to Gen Z, excluding contacted potential interviewees that did not fit the target age group.

3.3 Method of analysis

According to the qualitative content analysis approach by Mayring (2015), the transcribed interviews were coded and categorized to present the findings and interpret the data. This approach involves meticulously describing qualitative data and giving consecutive sections of the collected data codes. Furthermore, after Hsieh & Shannon (2005) codes represent more than just the interviewees fundamental thoughts since they serve as the essential component of the content analysis. In addition, other researchers state that coding collected data helps to acquire comprehensive and deep insights to the data and can make it easily retrievable and accessible (Linneberg & Korsgaard, 2019).

According to Mayring's (2015) qualitative content analysis, there are three steps to interpret the collected data. The first step is to reduce the primary data to the essential findings, creating a corpus that summarizes the interview. The second step concerned with explicating the data was excluded as further enrichment of the data was not needed for comprehension. The final step is about creating patterns from the data through categorizations and codes.

As mentioned before, the objective of the interviews is to identify which challenges the interviewees experienced when purchasing a new smartphone. This was analyzed by linking certain challenges to one of the five steps of the DMP model. For this purpose, an inductive coding approach was used where codes are not predetermined but created as the transcripts are evaluated (Delve, 2022). With the aim of doing so the data was first analyzed and condensed to the most crucial findings. Afterwards, codes and categories were made from the condensed text passages. These resulting categories represent experienced challenges. Furthermore, a new category was made if new codes could not be assigned to existing ones. A description of the category was provided to define its meaning and distinction. A first reliability check was conducted after reviewing a few interviews to ensure that the preset categories and codes were accurately defined. Furthermore, it was verified whether the codes were allocated to the appropriate categories. After this test was done, the remaining transcripts were examined. Ultimately, a final reliability test was conducted once all interviews had been reviewed. Categories that were difficult to distinguish between were merged or reformulated. Moreover, all sixteen interviews were analyzed using this method, which enabled the comparison of interviews based on multiple categories.

4. Results

This chapter aims to present the multiple findings derived from the interviews. Detailed anchor examples of the challenges and their corresponding descriptions can be found in the coding table in appendix 2.

To begin with, a small portion of the interviewees mentioned that they experienced it as challenging to *trust online reviews* when looking for information since they know that online reviews can be bought as well. Therefore, they do not see them as trustworthy (*I.11, Lines 70-74*). Furthermore, this also applied when watching review videos of people presenting smartphones in YouTube videos for instance (*I.16, Line 61*).

Another challenge highlighted by multiple interviewees was that they were struggling to *assess the quality of smartphones in terms of configuration, price and quality* and decide for an option. They mentioned they lack technological knowledge to assess if certain smartphone configurations such as a newer processor are better compared to an alternative smartphone (*I.4, Lines 39-40; ... see appendix 2*). Furthermore, they also experienced that when assessing the price of a smartphone. They said that they do not have enough knowledge about whether the higher price is worth the better smartphone since there are only minor differences in terms of certain configurations (*I.2, Line 31; ... see appendix 2*). Additionally, a minority also struggled to assess the quality as a consequence of low knowledge regarding smartphones (*I.1, Lines 68-70; ... see appendix 2*).

A further challenge similar to the prior one is the *assessment of one's needs*. This describes that the interviewees talked about difficulties to find out what their personal needs regarding a new smartphone are. They struggled to filter out which product features were

important for them rather than the ones advertised. In addition to that this process was also quite time consuming since a new smartphone is relatively expensive (*I.1, Lines 116-119; ... see appendix 2*).

Furthermore, the majority of the interviewees highlighted that it was challenging to **decide on a brand and technological specifications**. Firstly, it was identified as a challenge to choose a brand from the evoked set due to multiple options available in the market (*I.5, Lines 111-113; ... see appendix 2*). Secondly, it was not easy for them to decide between budget or premium versions of specific smartphones due to uncertainty about specifications and the long-term nature of the smartphone use (*I.3, Lines 108-111; ... see appendix 2*). Thirdly, deciding on a specific storage capacity was also mentioned as challenging by multiple interviewees since they did not know how much storage they require (*I.4, Lines 41-42; ... see appendix 2*). Lastly, deciding on a color was perceived as difficult as well (*I.13, Lines 97-99*).

Another challenge mentioned by several interviewees was about **getting influenced by people**. They mentioned it was difficult to decide on a certain brand or specification in light of differing opinions of family, friends or others. Hence, it was challenging for the interviewees to know whether to stick to their own opinions or listen to others' opinions. (*I.8, Lines 61-63; ... see appendix 2*).

In addition, the majority of the interviewees mentioned that they find it challenging to **decide where and how to buy the smartphone**. Firstly, multiple interviewees talked about how it is challenging for them to find the place to make the actual purchase since various options are available. On the one hand, certain websites offer smartphones cheaper through discounts compared to the brand's stores among others. On the other hand, these websites were not

perceived as trustworthy since the interviewees were not sure whether they actually receive products or get a warranty (*I.1, Lines 41-47; ... see appendix 2*). Moreover, visiting a brand's store allows the interviewee to purchase the smartphone immediately (*I.7, Lines 71-77*). Furthermore, purchasing the smartphone was mentioned as a further challenge due to low availability. It was mentioned that interviewees were put on waiting lists or stores had supply issues (*I.15, Lines 22-25 & 76-68*). Lastly, it was also explained that ***deciding on a certain payment method*** was challenging since multiple options were being offered (*I.7, Lines 26-29*).

Ultimately, another challenge highlighted during the interviews was the ***handling and compatibility*** after the purchase. An interviewee explained that he had difficulties with compatibility since he could not send files such as photos the way he used to with his old smartphone (*I.1, Lines 93-94*). Besides, the handling was perceived as challenging due to a different interface of the new smartphone (*I.1, Lines 98-100*).

Table 1: Consolidated results

#	Challenges from literature and conducted interviews	Source
1	Trusting online reviews	Interview
2	Assessing the quality of smartphones in terms of configuration, price and quality	Interview & literature
3	Assessing one's needs	Interview
4	Deciding on a brand and technological specifications	Interview & literature
5	Getting influenced by people	Interview & literature
6	Deciding where and how to purchase the smartphone	Interview
7	Handling and compatibility	Interview
8	Perceived social and financial status	Literature

5. Discussion

The first challenge experienced was about whether to *trust online reviews* published on websites or social media platforms like YouTube when collecting information about a certain smartphone. This is particularly relevant as Gen Z almost exclusively searches for information and the cheapest price online. This challenge can be linked to the *information search* step since the interviewees looked for information through commercial sources, one of the four main information sources defined earlier.

The next challenge that was derived from both the interviews and the literature is to *assess the quality of smartphones in terms of configuration, price, and quality*. This challenge was already identified by Pan, Xu & Wu (2017) who said that consumers occasionally lack the skills necessary to evaluate the quality of goods such as smartphones. In addition, the interviewees mentioned this lack of knowledge as well. This challenge can be linked to the *evaluation of alternatives* step because when consumers evaluate different products and feel like they have a perceived lack of knowledge, it creates uncertainty regarding their decision, especially in situations of high involvement and importance. Furthermore, the challenge to *assess one's need* can also be linked to the *evaluation of alternatives* step. It became evident that assessing one's needs is a lengthy process when it comes to products with high involvement and importance. Furthermore, interviewees confirmed that external influences exacerbate the difficulty of assessing personal needs.

The fourth challenge found in the literature by Kaufmann (2015) about *deciding on a brand and technological specifications* was confirmed by multiple interviewees and can be assigned to the *purchase decision* step. As multiple brands, products and attributes were already evaluated and narrowed down in the previous step through the creation of the evoked set,

making the final decision relates to the intended and actual purchase made. Nevertheless, it was regarded as challenging to decide on a final brand from the selection and its specifications in terms of price, color and storage space.

The fifth challenge, namely *getting influenced by others*, relates to the *purchase decision* step as well because the final decision is often influenced by other people's opinions as stated by the interviewees and confirmed by Rahim et al. (2017). Thus, it is difficult to determine to which degree the opinions of reference groups should be considered to make the best decision for the interviewee.

The sixth challenge refers to *where and how to purchase* the smartphone, thus this challenge can also be allocated to the *purchase decision* step. Concerning where to purchase, the influencing factors place, availability and price found in the literature by Stankevich (2017) were confirmed by the interviewees. They perceived it as challenging to decide on the place due to benefits and drawbacks of the respective online and physical options. Additionally, availability and price of the smartphone also played into the decision of where to make the purchase. Regarding how to purchase, one interviewee stated that deciding on a payment method was challenging depending on the personal financial situation which can be argued to relate to the purchase decision step too.

In addition, another challenge found in the literature by Büyüközkan & Güleriyüz (2016) was not confirmed by the conducted interviews, namely *how perceived social and financial status influence* the purchase decision. Nevertheless, this challenge can be assigned to the *purchase decision* step as consumers tend to purchase smartphones outside their set price range to be perceived as financially stable.

The last challenge is about the *handling and compatibility* of the smartphone after purchase and can therefore be allotted to the last step of the DMP model, the *post-purchase behavior*. As consumers examine whether their expectations concerning usage and performance were met in this step, one interviewee highlighted that he was disappointed by his purchase due to limited compatibility options and an interface that was difficult to handle.

In conclusion, challenges could be assigned to each of the five steps in the decision-making model except the first step as neither the interviews nor the literature display any challenges regarding problem recognition. Hence, challenges are concentrated on the information search, evaluation of alternatives, purchase decision and post-purchase behavior. It can be argued that the purchase decision is the most challenging step for consumers with four challenges assigned to it. As the purchase decision is concerned with the intended and actual purchase, this is a critical moment for the consumer as it concludes the DMP and has a lasting impact on the post-purchase behavior.

5.1 Theoretical implications

Regarding theoretical implications, the findings of this thesis are not only in line with previous research but have also broadened it. The collected qualitative data validated previous findings and discovered three further challenges not found in the literature. The new challenges derived were namely about trusting online reviews, deciding where and how to buy smartphones as well as the handling and compatibility. Even though research regarding challenges perceived during smartphone purchases exists, it has never been conducted with a sample of Gen Z. As described before, this consumer segment differs significantly from previous generations in their use of technology, hence its theoretical implications are completely novel. Furthermore, the findings of this thesis have an impact on future research.

More research should be conducted in terms of challenges by highlighting certain challenges and analyzing those more in depth. Moreover, as the findings from the interviews confirm that Gen Z consumers follow along the DMP when purchasing a smartphone, the theory at hand is suitable for explaining and understanding this process and for the present sample. Hence, the DMP could serve as a basis to underline challenges experienced in more depth in future research. Nevertheless, by extending the number of steps, it would be useful to conduct research with the seven-step model with the same or a larger sample size to verify the findings (Hashem, 2018).

5.2 Practical implications

Several practical implications can be derived from the discussed challenges. Firstly, companies should check and validate published online reviews to improve their trustworthiness. Furthermore, they should implement certifications proving that the consumer who wrote the review actually bought this product. This certification may aid other consumers in having higher trust in those reviews. This perceived trustworthiness of reviews can influence acceptance rates and has a considerable impact on sales (Banerjee, Bhattacharyya, & Bose, 2017).

Furthermore, companies can take several actions to improve the assessment of configuration, price and quality. To begin with, they should try to educate consumers better by showing consumer-friendly, practical examples of specific configurations. This could include demonstrating that a certain amount of storage equals a certain number of photos, videos, or songs. In addition, they could show comparative videos where it is clearly displayed what the differences between configurations are and from what factors the price is composed.

Moreover, the process of assessing one's needs can also be improved by companies through offering questionnaires. In these questionnaires, consumers could indicate what features are most essential for them such as taking many photos or watching videos in high resolution. Consequently, companies could offer several product options in response to their needs such as configurations with high storage or the best display. This can also help with the interviewees' challenge of deciding on a brand and technological specifications. Showing different configurations, their benefits and the reasons for pricing may help consumers in making their final purchase decision.

Furthermore, several steps can be undertaken regarding where and how to buy the smartphone. To start with, websites that may be received as not trustworthy should get specific certifications to be seen as reliable. Moreover, brands should create incentives to encourage purchasing their products including specific bundling options (e.g., providing a set of new headphones or offering certain discounts when purchasing a new smartphone). Lastly, companies should highlight specific payment options and their advantages for consumers to improve their choice of payments.

However, some challenges arguably do not offer practical implications. This includes the challenge of getting influenced by others because companies can hardly prevent that. Additionally, the handling and use as well as the perception of social and financial status offer little practical implications because consumers can test user faces in the store and check compatibility.

5.3 Limitations

There are a few limitations to be highlighted regarding the conducted research and its findings. The sample size, the structure of the interview questions and the interpretation of results are all influenced by subjective variables. The first limitation relates to the sample size. Since only 16 interviews were conducted, it is impossible to infer that the challenges encountered are typical among Gen Z individuals. Hence, the purchase decision step might not be regarded as the most challenging step with a larger sample size depending on the interviewees' experiences. Furthermore, the sample size does not include any interviewees born after 2003, thereby solely focusing on Gen Z consumers over the age of 19. The interviewees' uniqueness must also be stressed since it influences the challenges experienced during the DMP. Additionally, just one model has been included in this thesis, limiting the breadth and depth of the conducted research. It is essential to highlight that various other purchasing DMP theories or models could have discovered more or different perceived challenges. The model used in this thesis by Kotler & Keller (2015) only uses five steps of the DMP. Further models include seven steps that might impact the findings and the correlation of challenges to specific steps (Hashem, 2018).

5.4 Future research outlook

This thesis provides ample research opportunities for the future. Firstly, additional research could be conducted using the seven-step DMP model, which might enrich and broaden the results. Moreover, it could also be insightful to conduct further research on the challenges with a focus on online shopping since Gen Z mostly shops online. In addition, the research approach could be expanded as well by using a quantitative or a mixed approach combining both research types. Increasing the sample size regarding age or origin of the interviewees could also develop deeper insights. Moreover, this thesis only researched the challenges of Gen Z

consumers. Therefore, future studies might research differences or similarities among generational groups such as Millennials or Baby Boomers.

6. Conclusion

Gen Z or the “digital natives” have a high affinity to technology, especially smartphones, making it a highly attractive and relevant consumer segment to the telecommunications industry. Multiple internal and external factors make the DMP that consumers have to go through every few years when purchasing a new smartphone, a challenging and time-consuming process. This thesis identified eight challenges through the literature and the 16 conducted interviews that were assigned to the respective steps of the DMP model by Kotler & Keller (2015). Even though the first and last step bore insignificant challenges, all remaining steps offered challenges resulting in practical implications. In particular, the purchase decision was identified as the most challenging step for Gen Z consumers including deciding on a brand, technological specifications and where and how to buy the smartphone. Furthermore, the influence of others and perception of one’s social and financial status were also experienced as a significant challenge. By identifying new challenges, a research gap in the literature was closed providing both theoretical and practical implications for future research and companies. Nevertheless, as some challenges were exclusively found through the used qualitative research method, it is essential to conduct further research to validate the findings and enrich the implications.

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Appendix

1. Interview sample

Table 2: Overview interview sample

Interview Nr.	Date of Rec.	Anonymized Name	Gender	Country of origin	Birthyear
1	03.11.2022	Emily Rau	Female	Austrian	1998
2	03.11.2022	Philipp Grob	Male	German	1995
3	04.11.2022	Moritz Steuer	Male	German	2002
4	04.11.2022	Lisa Meier	Female	German	2001
5	07.11.2022	Max Olsen	Male	Dutch	1997
6	07.11.2022	Julian Bauer	Male	Austrian	1996
7	08.11.2022	Felix Neu	Male	German	2002
8	08.11.2022	Marie Hoff	Female	Swiss	2000
9	08.11.2022	Olivia Popow	Female	Russian	1999
10	09.11.2022	Luca Giebe	Male	German	1996
11	10.11.2022	Sophie Michel	Female	German	1997
12	10.11.2022	Caroline Alt	Female	German	2001
13	10.11.2022	Louisa Neumann	Female	German	1995

14	10.11.2022	Luis Baum	Male	German	1999
15	11.11.2022	Cara Braun	Female	German	2000
16	11.11.2022	Kevin Koch	Male	German	1995

2. Consolidated coding table

Table 3: Consolidated coding table

Category	Description	Codes	Anchor Example	Presumption
		Place	<p>“But regarding the actual place where I bought the phone, it was really hard to decide where to buy it. So I really struggled with that because, as I said, I compare different phones on those types of websites and they often also offer some discounts on specific brands but I never really know if these websites are trustworthy and whether you can actually receive the product in the end or you get scammed, because there’s basically no guarantee“ <i>– I.1, Lines 41-47</i></p> <p>“[...] and then I mentioned it earlier as well was the decision where to buy the phone was difficult. So where can I get the safety for the quality, where I know the iPhone, where I know I get also good service in case something happens with my phone“ <i>– I.4, Lines 121-124</i></p> <p>“I had to buy a new one quickly, so I was kind of challenged by where to buy the phone. So should I go to a store that I could buy it, like immediately? Or should I order on the retailers website? Or should I go for maybe unknown websites which offer the phone maybe for a lower price, but then I</p>	

<p>Where (place) and how (payment method) to purchase</p>	<p>This category describes where and how the interviewees purchased the smartphone (e.g., on the internet or in stores)</p>	<p>won't have a good customer service, I don't know, or warranty or anything like that" – <i>I.7, Lines 71-77</i></p> <p>"[...] it's very challenging where you buy the phone because I mean, there is the possibility to buy the phone online [...] there are a lot of websites selling the phones also like a little bit cheaper for example. But then you could also go to the store [...] get more information on phone and maybe you have a safer feeling of warranty [...]" – <i>I.9, Lines 62-72</i></p> <p>"[...] it was quite challenging for me to kind of identify where to get the phone because I'm, like, a Vodafone customer, and I was kind of like, should I get it? Should I get my new phone with a new contract, or should I buy it as a single piece?" – <i>I.14, Lines 85-87</i></p> <p>"[...] do I just buy it, like, in the store, or do I buy it, like, in the Internet? On the Internet. And there are some websites which seem to be very reasonable, but others that were, like, kind of shady, to be honest [...] but they offered, like, a cheaper price. I was kind of like, you know, do I take the risk even though I don't feel, like, totally comfortable with my purchase?" – <i>I.14, Lines 89-95</i></p>	<p>Challenge in the purchase decision step</p>
		<p>Availability</p> <p>"So I wanted to buy it in this one actually, but</p>	

			<p>they had some supply issues during that time, I think especially because of COVID So I actually had to wait to buy it in Germany, but I really want to buy it in a store because I prefer the experience to purchase it in the store“ – <i>I.15, Lines 22-25</i></p> <p>“[...] so yeah, as I mentioned before, it was difficult to get an iPhone. I was put on a waiting list, but then forever“ – <i>I.15, Lines 76-68</i></p>	
		Payment method	<p>“I looked into the pricing and payment methods. So I thought it was quite challenging because I looked at the payment methods like payments of installments or could I use a credit for paying it“ – <i>I.7, Lines 26-29</i></p>	
		Configuration (e.g. processor)	<p>“[...] I find it really hard to decide because I don’t have so much knowledge about phones“ – <i>I.4, Lines 39-40</i></p> <p>“That was like the main challenge for me, actually, to figure the configuration out because I’m not having a huge understanding of the technique behind that. So basically understanding the difference between the iPhone ten, the iPhone eleven [...] and so on [...] I have no idea. I know it makes it go faster, but I don’t have any idea“ – <i>I.5, Lines 41-47</i></p>	

<p>Assess quality in terms of configuration and price</p>	<p>Describes the lack of knowledge on a technological base to assess the quality and price of a smartphone</p>	<p>Price</p>	<p>“Definitely I have no idea about stuff like that. So it was kind of impossible to figure that out, actually, for me“ – <i>I.5, Lines 66-67</i></p> <p>“[...] it is kind of difficult because I’m not an expert. I don’t know if the process is really better or not because I’m not really into that tech stuff, let’s say. But that’s kind of challenging to find out [...] But it’s always kind of challenging to see if it’s really worth the price or not, just because we’re not really an expert“ – <i>I.8, Lines 33-39</i></p> <p>“[...] that’s quite challenging because you can hear as much as you want to, you need to experience how the phone works [...]“ – <i>I.9, Line 33</i></p>	<p>Challenge in the evaluation of alternatives search step</p>
		<p>Price</p>	<p>“[...] well, it’s quite difficult, to be honest, to assess the quality or the price“ – <i>I.2, Line 31</i></p> <p>“[...]and I’m not really an expert and I don’t have the knowledge to assess if the price is worth the upgraded phone [...] so that was really a challenge because [...] that was really hard for me to assess“ – <i>I.11, Lines 41-46</i></p> <p>“For example, when I was checking the prices online, there were so many different price ranges for the phone and I didn’t really understand what additional features I will get with another price. And there was just an overload of information and</p>	

			<p>it was hard for me to find out, okay, what is the best price to pay here for the phone?“ – <i>I.13, Lines 88-92</i></p> <p>“So for me it’s kind of difficult to assess a price on a smartphone because at least to me also like the differences between the new phones, especially regarding Apple, for me it feels like they are very minor“ – <i>I.14, Lines 53-55</i></p> <p>“[...] it is kind of difficult because I’m not an expert. I don’t know if the process is really better or not because I’m not really into that tech stuff, let’s say. But that’s kind of challenging to find out [...] But it’s always kind of challenging to see if it’s really worth the price or not, just because we’re not really an expert“ – <i>I.8, Lines 33-39</i></p>	
		Quality	<p>“[...] there always a lot of features [...]that I have actually no idea about. That is really challenging for me because I feel like I have a lack of knowledge regarding technology and that makes it more difficult for me to really assess the real quality of a smartphone“ – <i>I.1, Lines 68-70</i></p> <p>“[...] well, it’s quite difficult, to be honest, to assess the quality or the price“ – <i>I.2, Line 31</i></p>	
			<p>“So I actually found it really challenging to filter out what the most important features are for me and</p>	

<p>Assessing one's needs</p>	<p>Describes the process of assessing one's personal needs regarding a new smartphone</p>	<p>Personal needs</p>	<p>not what the features were that were advertised and since a new smartphone is quite expensive it really took some time to figure out. [...]“ – <i>I.1, Lines 116-119</i></p> <p>“[...] I was struggling, since it was also a thing I had to take some time with to identify what I personally really want “ – <i>I.2, Lines 78-81</i></p>	<p>Challenge in the evaluation of alternatives step</p>
		<p>Deciding between versions</p>	<p>“I think I mentioned the difference between the normal one and the iPhone pro is the main challenge. It is basically from the surrounds, like from the size, it is the same phone but just with more functionality, more cameras, more faster process. So I think that is the most challenging decision whether you buy the better phone or not“ – <i>I.3, Lines 108-111</i></p> <p>“I think the most challenging part is actually to decide for which model you go and which specifications you want to have [...]“ – <i>I.6, Lines 91-93</i></p> <p>“[...] So for me it was quite challenging which model I'm going for because they follow two product strategy, like a premium one and the premium one. [...]“ – <i>I.7, Lines 21-23</i></p> <p>“So of course you really want to make a good longterm decision [...] but in the end, yeah, that's the difficult thing“ – <i>I.10, Lines 80-83</i></p>	

<p>Deciding on a brand and technological specifications</p>	<p>Deciding on a certain brand, color, or storage size</p>	<p>Storage capacity</p>	<p>“So it was really hard for me to find out, okay, what do I need? How many, for example, gigabyte do I need, why do I want to use it [...]“ – <i>I.4, Lines 41-42</i></p> <p>“I was kind of struggling a little with the storage [...] so I was kind of not sure actually which storage I should actually choose [...]“ – <i>I.6, Lines 30-35</i></p> <p>“[...] it was kind of difficult for me because I didn’t know which data storage actually I should take“ – <i>I.8, Lines 21-22</i></p> <p>“Also regarding the function, data storage, that was also hard because for me, I think it’s more convenient to have a big storage, but of course that’s also more expensive“ – <i>I.11, Lines 29-31</i></p>	<p>Challenge in the purchase decision step</p>
		<p>Offering (brands)</p>	<p>“[...] but I think it’s very difficult because there are so many options in the market. Also, I think that’s quite tough to have like an overview – <i>I.5, Lines 111-113</i></p> <p>“I think choosing the right phone after choosing the brand you want is quite difficult because there’s so many options “ – <i>I.12, Lines 64-65</i></p> <p>“So, during my past purchase, I had a bit of struggle to come to a final decision due to the many options</p>	

			that were available in the market “ – <i>I.13, Lines 23-24</i>	
		Color	“I think with the colors that for example, the Apple iPhone office right now, I had difficulty choose the perfect color for me “ – <i>I.13, Lines 97-99</i>	
Handling and compatibility	Handling and use refer to getting accustomed to a new interface and the compatibility with other products	Handling	“I also think that the iPhone is way more intuitive when yo use it (...) So it was really challenging for me to actually get used to the Samsung setup“ – <i>I.1, Lines 98-100</i>	Challenge in the post purchase behavior step
		Compatibility	“[...] that was actually really challenging for me to get the photos of my phone now on the MacBook and stuff like that. I could not AirDrop photos“ – <i>I.1, Lines 93-94</i>	
			<p>“So you get influenced by others a lot, but they’re saying if it’s worth it or not. So you’re not just listening to yourself, but you’re listening to others, which makes it challenging to make a final decision“ – <i>I.8, Lines 61-63</i></p> <p>“For example, my friends, they had some recommendations regarding a phone [...] so it was difficult to decide between should I listen to them and their recommendations or should I listen to</p>	

<p>Getting influenced by people</p>	<p>Getting influenced by the opinion of one's relatives among others concerning one's purchase decision</p>	<p>Opinion of relatives or other people</p>	<p>myself and buy the phone that I want? So that was also a challenge" – <i>I.11, Lines 76-79</i></p> <p>"I was talking to other persons and to get an understanding for it. But honestly, it was a bit stressful because a lot of people told me different things that were relevant and yeah, in the end I chose the one I wanted. But I think this was a bit of a challenge for me here – <i>I.13, Lines 32-35</i></p> <p>"[...] there were just, like, very many impressions on many assumptions of other people, and that was quite challenging for me, to be honest" – <i>I.14, Lines 31-33</i></p> <p>"[...] from time to time, of course, friends opinion was influencing me and I was unsure about my initial decision and thoughts" – <i>I.2, Lines 94-96</i></p>	<p>Challenge in the purchase decision step</p>
<p>Trusting online reviews</p>	<p>Trusting published online reviews about certain products on the internet</p>	<p>Trustworthy reviews</p>	<p>"I looked for online reviews [...] and for me, it was challenging to know, can I trust the online reviews? Because I know that a lot of online reviews are also bought. So that was very challenging to get honest reviews" – <i>I.11, Lines 70-74</i></p> <p>"And then I'm always watching review videos from tech people on YouTube but I do not know if they were paid to say that or if its her actual opinion – <i>I.16, Lines 59-61</i></p>	<p>Challenge in the information search step</p>