



LUND UNIVERSITY  
School of Economics and Management

# Personalized Marketing

A study examining factors influencing millennials' intention to act upon  
personalized advertisements on Facebook

by

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May 2021

Master's Programme in International Marketing & Brand Management

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# Abstract

**Title:** Personalized Marketing: A study examining factors influencing millennials' intention to act upon personalized advertisements on Facebook

**Date of the Seminar:** June 4th, 2021

**Course:** BUSN39 - Degree Project in Global Marketing Level

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**Purpose:** The fundamental aim of this thesis is to investigate how strongly the Personalized Marketing (PM) factors identified in previous literature correlate with millennials', aged 24 to 40, intention to act upon personalized advertisements on Facebook. Thereafter, the goal was to compare the extent to which the outcomes varied depending on millennials' age group and gender.

**Methodology:** The thesis uses a quantitative method, cross-sectional correlational study, to measure the strength of the correlation between five identified personalized marketing factors, namely positive attitude, hedonic motivation, trust, past experience and advertising attributes, and millennials' intention to act upon personalized advertisements on Facebook. The data was collected through an online survey, using a non-probability sampling method.

**Findings:** Our empirical study showed that there is a strong correlation between positive attitude, trust, hedonic motivation, past experience, advertising attributes, and millennials' intention to act upon personalized advertisements on Facebook. There were some differences in the measured correlation across gender and age. The findings also indicate a multiple linear relationship between the PM factors and millennials' intention to act.

**Research implications/limitations:** Our research has taken a holistic view at all PM factors altogether, through the application of the Theory of Planned Behavior, in order to investigate the extent to which each PM factor influences millennials' intention and subsequently, their behavior. Future research could, therefore, attempt to use a different theory, such as the consumer cultural theory, to establish the extent to which such a study could yield different outcomes. Other limitations include our sampling method, the target group, the chosen social media platform and an unspecified industry/product category.

**Keywords:** Personalized Marketing, Personalized Advertisements, Millennials, Facebook, Positive Attitude, Hedonic Motivation, Trust, Past Experience, Advertising Attributes, Intention to Act

# Acknowledgements

This thesis is developed for the master's Program in International Marketing and Brand Management at Lund University, Sweden. Thanks to the support of a number of people, we have been able to conduct this study.

First and foremost, we would like to thank our supervisor, Tommy Shih, who has been incredibly helpful during the two months of writing. His constructive feedback has truly helped us optimize our work as best as possible. We would also like to thank Antonio Marañon for continuously making himself available to us. Antonio is an excellent teacher whose help cannot go unrecognized.

Secondly, we would also like to thank our survey participants who have taken the time to be part of our empirical study. Without their help, we would not have been able to achieve our research purpose.

Finally, we would also like to thank our friends and family for their unconditional support throughout the development of this thesis.

Lorenzo Dirksz



Lovisa Svensson



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## List of Abbreviations

|   |
|---|
| DV = Dependent Variable                   |
| GDPR = General Data Protection Regulation |
| IV = Independent Variable                 |
| PM = Personalized Marketing               |
| SMM = Social Media Marketing              |
| TPB = Theory of Planned Behavior          |
| TRA = Theory of Reasoned Action           |

# 1. Introduction

Today, consumers are bombarded with information from brands, particularly through social media. Social Media Advertising has become the second largest segment within Digital Advertising, accumulating 27.5 percent of the entire market with a market size of 97.7 billion US dollars in 2020 (Statista, 2021a). Trends indicate that social media users will continue to grow, from 2.9 billion users in 2020 to 3.3 billion users by 2024 (Statista, 2021a). Utilizing social media as a segment for marketing, therefore, entails a wide range of potential consumers for any company. However, Social Media Advertising also presents several challenges for marketers today. As the vast amount of data available continues to grow, it is vital for marketers to understand how to make the most of the data. For instance, Tantry (2016) estimates that each day 2.5 quintillion bytes of data are created, and it is the marketer's job to ensure that the collected data can guarantee that they can deliver personalized impressions to their consumers. In addition, the challenges of information availability stem from our historical agriculture, manufacturing, and service economic shift, to today's information society (Hofacker & Belanche, 2016). Hofacker and Belanche (2016) argue that the challenges of information lie in its fluidity, in other words, the flow of information is far more fast-moving than the production of any product. Furthermore, they argue that internet accessibility means that users start to demand but also provide information in a never-ending loop.

As consumers' attention becomes harder to obtain, due to the overwhelming information flow, many consumers have begun to zone out irrelevant messages (Campos, 2021). Therefore, a fundamental problem that businesses face today is their ability to ensure that communication with, for instance, individuals online is unique and personalized. This would enable them to increase their competitiveness on the second-largest segment, social media. This further increases the chances for businesses to effectively influence consumers' intention to act upon a particular advertisement. As a result, many marketers have begun to use personalized marketing (PM) as a way of reaching specific consumers in a desired target group.

PM is described by Lee and Granage (2011, cited in Behera, Gunasekaran, Guptac, Kamboj & Bala, 2019, p. 2) as "an established e-commerce marketing strategy and generates uplifts in purchasing intentions towards the company, and produces additional customer benefits such as effectiveness, increase in loyalty, and early feedback." In other words, PM is a marketing approach that uses consumer data and smart technologies to provide consumers with personalized messages, product recommendations, and offers. For PM to be possible, a business needs to know its target audience so that it can leverage user data in order to provide personalized offers based on consumers' unique preferences (Buryan, 2018). When used correctly, PM enables businesses to communicate with consumers by transmitting messages and offers as personally or humanly possible (Campos, 2021). PM has also evolved from simple email marketing campaigns to a strategy for customer relationship management, aiming to tailor offerings to individuals' personal preferences (Dawn, 2014). Today, companies can gain valuable insights about consumers by utilizing customer databases and, therefore, begin to identify their needs. As a result, modern consumers expect personalization in every interaction with a company (Campos, 2021).

Constructing a personalization strategy and putting it into practice could be challenging. While many companies have the ability to obtain consumer data, it takes time and resources to understand how to use such data to their advantage. Oftentimes, major corporations have larger budgets, but simultaneously spend a lower percentage of their revenue than start-ups or even small-to-medium sized companies, on information technology (PACE Technical, n.d.). This enables them to have know-how on larger scales or in-house, in terms of customer data, resulting in more strategic decisions that could put them in a competitive lead compared to small companies. Nevertheless, if a company uses the resources at hand effectively, it can gain several advantages by utilizing personalization, particularly on social media. As claimed by Muralidharan (2019), personalization on social media could help businesses obtain higher engagement rates, more leads that improve conversion rates, and higher customer loyalty as customers begin to feel recognized and valued by the company. In fact, marketers have noticed an increase of 56 percent in sales when personalizing consumers' experiences, and roughly 77 percent of consumers being more willing to pay a price premium for a brand that offers personalized services and experiences (Agarwal, 2019).

When it comes to social media, Facebook leads the way as the number one platform globally, accounting for more than 2.6 billion active monthly users (Statista, 2021b). Facebook is also the number one platform for social advertising due to its large number of users and relatively inexpensive advertisement costs compared to traditional marketing (Jolly, 2021). Through Facebook, businesses can easily reach their target market, thanks to the user data that the platform systematically collects, such as demographic information as well as data on users' behavior on the platform, including their personal likes and preferences. Facebook has also become an important medium for online marketers as it integrates e-commerce and social shopping, making the purchasing of products and services just a click away (Lyfe Marketing, 2018). More importantly, Facebook is perhaps the best social platform for targeted advertisements, enabling marketers to reach consumers with customized and personalized messages (Lyfe Marketing, 2018). Millennials, also known as Generation Y, account for more than 40 percent of all users on Facebook, making them the most active Facebook users in the world (Statista, 2021c). Millennials are defined as individuals born between 1981 and 1996, who "came of age during the internet explosion" (Dimock, 2019, n.p.). They are also the first generation that relies on social media as the primary source of communication (Helal & Ozuem, 2019). In recent years, several marketers have acknowledged the power of millennials on social media and the opportunities available to connect them with both other people and brands (Eastman, Iyer & Thomas, 2013; Eastman & Liu, 2012; Hewlet, Sherbin & Sumberg, 2009). Younger generations, such as millennials, also "expect brands to understand their values and deliver tailored experiences" (Dimock, 2019, n.p.), as such, it has become evident that brands need to provide millennials, in particular, with a unique advertising experience.

As marketers seek to find suitable blueprints on how to maximize the use of PM to their advantage, many researchers provide valuable insights into which factors are deemed as most important for online personalization. For instance, Pappas (2018), Tran (2017), and De Keyzer, Deans, and De Pelsmecker (2015) suggest that positive attitudes could influence the effectiveness of personalized advertisements. Pappas (2018) and De Keyzer, Dens, and De Pelsmecker (2015) state that positive attitudes towards both the brand and the source lead to a continued shopping journey and increased click-through rates. Similarly, Tran (2017) discusses the benefits that positive attitudes have on behavioral intentions. Other researchers suggest that customers' motivation to engage with a brand could also influence the way they perceive personalized advertisements. Vinereana and Opreana (2014) and Setyani, Zhub, Hidayanto, Sandhyaduhita, and Hsiao (2019) found that hedonic value has a strong effect on consumers' motivation, which may influence their intention to act upon a personalized advertisement. Whereas Aguirre, Mahr, Grewal, de Ruyter, and Wetzels (2015) and Tucker (2014), observed that trust in both the communication and collection of information is what leads to higher click-through rates. Similarly, Pappas (2018) claimed that trust is an important component when consumers decide to continue purchasing online or not. A positive past experience was identified by Giantru, Rahayu and Solimum (2013), as well as Leeraphong and Mardjo (2013) to positively influence consumers' online purchase intention. Carolan (2018) discovered that retailers can strategically use consumers' data on previous purchases to nudge products towards specific consumers. Finally, Chen and Hsieh (2012), Nguyen, Emberger-Klein, and Menrad (2019), as well as Shen (2014), established that price, preference, promotions, and interest are pivotal advertising attributes that could lead to an increase in sales and customer satisfaction, suggesting the extent to which PM could be effective.

### 1.1. Research Aims and Objectives

Several factors were found by researchers to correlate with consumers' intention to act upon personalized advertisements, namely attitude, motivation, trust, past experience, and advertising attributes, hereby referred to as PM factors. PM factors in this paper are those associated with personalized advertisements which have been extensively discussed in previous literature. Several authors have argued for the correlation between these factors and consumers' intention to act. However, while a number of them discuss the importance of each factor separately and have found that they could lead to similar benefits, such as higher click-through rates and customer satisfaction, no previous study has examined the strength of all these factors before in a single study, particularly in relation to consumers' behavioral intentions.

Another limitation of previous studies is that many of them conducted research among individuals of either one nationality or a narrow age range. In other words, the observed literature lacks an extensive, cross-sectional correlational study based on, for instance, members of an entire generation with different demographic characteristics. Such a study would, therefore, make it possible to rank the strength of the correlation between each PM factor and consumers' intention to act based on a specific generational cohort consisting of a diverse group of people, with a similar relationship to social media.

Furthermore, research has shown that there is a growing need for online personalization, as consumers expect personalized information through every interaction with a brand. As the collection of customer data becomes more accessible and efficient, there is a need for marketers to understand the value of such data. The ever-changing customer needs on social media platforms, such as Facebook, suggest that marketers need to recognize how they can use customer data to their advantage in a highly saturated marketplace.

Consequently, by analyzing the PM factors through a generational perspective, the goal is to irradiate further on how millennials rank them, in relation to each other, and, in turn, how this could benefit businesses who wish to advertise on Facebook. Hence, the significance of this study lies in its ability to uncover the extent to which these PM factors correlate with millennials' intention to act and, thereafter, rank their importance.

The study begins by measuring each factor's individual correlation with millennials' intention to act in an effort to establish the degree to which they are relevant in personalized advertisements for both millennials, the target group, and Facebook, the social media platform. This is followed by an analysis of their strength, creating the possibility to rank the factors among millennials on Facebook. Lastly, we will analyze if there is multiple linear relationship between all the PM factors and millennials' intention to act. This would, altogether, lead to insights on how marketers could effectively use the data available to them to better design personalized advertisements on Facebook.

The main research question in this paper is therefore:

*"How strongly does each Personalized Marketing factor correlate with millennials' intention to act upon personalized advertisements on Facebook?"*

Furthermore, since we aim to conduct a cross-sectional study, this paper also seeks to answer the subsequent research question:

- (1) *"Do the findings differ between millennials of different demographics?"*
- (2) *"Is there a multiple linear relationship between all Personalized Marketing factors and millennials' intention to act upon personalized advertisements on Facebook?"*

Due to the arguments of ethnography studies, we opted to evaluate millennials' intention to act particularly on Facebook rather than measuring their actual behavior. According to Elliot and Jankel-Elliot (2003), while consumers may express a desire to do something, in reality, they may not actually do as they say. Therefore, for the feasibility of our research, instead of observing consumers' actual behavior, we aim to examine millennials' behavioral intentions. In other words, the degree to which the factors influence their desire or intention to act, for instance the likelihood of wanting to purchase a product and click or interact with an advertisement. By applying the Theory of Planned Behavior (TPB), we aim to connect these insights to a relevant socio-psychological theory.

By applying the Theory of Planned Behavior (TPB), we aim to connect these insights to a relevant socio-psychological theory.

Therefore, to sum up, the main purposes of this thesis are to:

- (1) Investigate how strongly the previously described PM factors correlate with millennials' intention to act upon personalized advertisements on Facebook
- (2) Rank the factors according to their identified strength
- (3) Investigate if there is a multiple linear relationship between all PM factors and millennials' intention to act upon personalized advertisements on Facebook

### 1.3. Delimitations

This thesis focuses exclusively on the strength of the correlation between the PM factors and millennials', more specifically, individuals born between 1981 and 1996, and their intention to act upon a personalized advertisement on Facebook. Due to time constraints, we also decided to only test the PM factors among millennials. Therefore, it is essential to note that the results from this study may not be generalized to individuals from a different generation or to a platform other than Facebook. Future research could, therefore, benefit from including different social platforms and members of a different generation. Furthermore, considering the current global pandemic, COVID-19, communication with participants as well as the collection of data have only taken place online, which may have influenced the validity and reliability of the empirical study. Moreover, researchers may also build upon our findings to study how consumers' intention to act could lead to a concrete set of actions.

Furthermore, while additional PM factors could be found in previous studies that would be interesting to explore, we opted to include those that were most frequently and extensively discussed in previous research and, to some extent, aligned with the selected theory, the Theory of Planned Behavior (TPB). Therefore, it is worth noting that future research exploring other factors could yield different research outcomes. Finally, our chosen theory, the TPB, and the results from testing this given theory are only relevant in the context of PM on Facebook. In that sense, testing the effectiveness of PM, for instance, on other social media platforms may yield completely different results even when applying the TPB.

### 1.4. Outline of Thesis

The thesis begins by introducing the topic of PM and defining the research aim and objectives. The introduction section argues for the found research problem that will be answered throughout the thesis. Thereafter, a literature, as well as a theoretical review, aims to present the reader with relevant findings within academic research. For instance, the literature review presents the PM factors, attitude, motivation, trust, past experience, and advertising attributes. Moreover, to operationalize our research question, a relevant theory, the TPB, is presented.

Subsequently, the conceptual and theoretical frameworks are built upon the presented literature and theoretical review and will act as the basis for our research. After the framework, our methodology is presented and acts as a guideline for how the research was conducted. The methodology section will also define our research approach, research design as well as argue for the research's reliability and validity.

The empirical findings are then presented and analyzed. Thereafter, a discussion of the findings will aim to answer our research questions with the help of our presented theory and literature review. We will also present our thoughts on the paper's findings as well as its practical implications. To end, limitations and possible future research ideas will be presented to give insights into how the research may be further developed.

## 2. Literature and Theoretical Background

The following section aims to present a thorough review of previous literature on PM. The goal is to identify the most relevant literature, theory, and concepts related to the topic at hand. The knowledge acquired in this section allows for a better understanding of PM as well as the opportunity to make predictions.

### 2.1. What is Social Media Marketing?

The use of the internet and social networks is now a staple in many companies' marketing mix. As a result, Social Media Marketing (SMM) is utilized by a majority of marketers (Saravanakumar & SuganthaLakshmi, 2012) and is defined by Ward (2011, cited in Whiting & Deshpande, 2014, p.74) as "the attempt to use social media to persuade consumers that one's company, products and/or services are worthwhile". Vinereana (2017) argues that the concept of SMM can be defined as the connectivity with current and prospective customers, or by its relation to customer equity, loyalty, and purchase intention. Assaad and Gómez (2011) explain that SMM is a way for companies to improve their communication with customers on computers and mobile devices. Saravanakumar and SuganthaLakshmi (2012) claim that the main objective of SMM is to ensure that the company reaches consumers at the right moment throughout every stage of their customer journey. They further argue that the use of social networks enables marketers to use Targeted Advertising, making it possible for them to design targeted advertisements for a specific target group.

Several researchers discuss the benefits of SMM. The utilization of social networks as a marketing strategy has quickly become a new way for businesses to create excitement for new products (Whiting & Deshpande, 2014). Assaad and Gómez (2011) argue for its strength in understanding consumers' needs thanks to its effectiveness in building relationships with consumers due to its personal nature. Clark and Melancon (2013) support this argument by stating that SMM makes it possible for the development of close and personal relationships, resulting in a more loyal fan base compared to traditional, and less personal, marketing strategies. However, Whiting and Deshpande (2014) claim that SMM is not suitable for brand awareness, as a company or product must be known to consumers first. In contrast, Tsimonis and Dimitriadis (2013) argues that SMM can be used to raise brand awareness through positive word of mouth due to a large number of users and their ability to easily share content with each other. SMM is, therefore, not a substitute for traditional marketing. Instead, social media may be part of an organization's marketing strategy and should be considered as an extra medium with its own attributes that enhances and complements other marketing tactics (Assad & Gómez, 2011). Such an approach is, thus, likely to contribute towards the effectiveness of each channel within the marketing mix.

As the use of social media advertising continues to grow, many companies are using Facebook for their marketing campaigns as it is less expensive than traditional media (Tran, 2017).

One effective way for marketers to utilize Facebook for advertising purposes is using a customer's search history to target their advertisements (Tran, 2017). A study by Wirtz, Göttel and Daiser (2017) also discovered a positive effect between the amount of time Facebook users spent on the platform and how well they approved personalized advertisements on Facebook and their intention to spread information through word-of-mouth. This indicates that frequent Facebook users are more likely to accept and engage with personalized advertisements.

As the leading social media platform in the world, Facebook provides marketers with a business model that makes it possible to effortlessly advertise and engage with consumers (Curran, Graham & Temple, 2011). According to Curran, Graham, and Temple (2011), a social media site such as Facebook allows businesses to gain new customers, remain in contact with existing ones, and promote new products and offers. Moreover, due to its large user base, several companies use the social platform by creating Facebook pages and groups devoted to their brands (Curran, Graham & Temple, 2011). In fact, today businesses of all kinds, including small, medium, and large corporations, utilize Facebook to reach consumers (Curran, Graham & Temple, 2011). Thus, Facebook is a unique platform as it makes it possible for businesses to establish a personal relationship with consumers, allowing both consumers and businesses to engage in one-on-one conversations (Curran, Graham & Temple, 2011).

According to Rehman, Ilyas, Nawaz, and Hyder (2014), advertisements on Facebook also make it possible for consumers to actively engage with brands by, for instance, enabling them to like and share advertisements. Therefore, many researchers argue that the presence of a brand on a social media platform like Facebook verifies its trustworthiness. While there are many advantages of advertising on Facebook, to be successful on the platform, advertisements should meet several criteria, including participation, personalization, and feedback (Rehman, et al., 2014). Lukka and James (2014) further argue that Facebook allows marketers to effectively market their products in a personal way by enabling them to customize their advertisements for specific groups of consumers. The social media giant, therefore, makes personalization and customization possible by collecting user data such as demographic information and consumers' likes and preferences. Consequently, the collection of such data allows marketers to target consumers in a relatively inexpensive way (Rehman, et al., 2014).

## 2.2. What is Personalized Marketing?

As personalization becomes more common on social media, the concept of PM is becoming far more complex and disputed amongst marketers. The core of PM is, nonetheless, shared amongst many. For instance, Dawn (2014, p. 370) states that personalization aims to tailor the marketing mix "to meet the unique needs and responsiveness of [...] customers". This is similarly explained by Tang, Liao, and Sun (2013, p. 234) as "the process of delivering targeted products and services to a customer based on the customer's profile."

They claim that the main objective of PM is, therefore, to offer products and services that meet the specific needs of each customer. Several researchers, including Dawson and Kim (2010), state that PM is possible when relevant data is collected to offer consumers a personalized experience. They argue that personalized advertisements work by gathering and incorporating pivotal information from customers, such as demographic information, browsing history, and brand preferences. Nevertheless, as Vesanan (2007) elucidated, the use of personalization could still differ amongst marketers, particularly in terms of the kind of data they use to tailor marketing messages. As previously argued by many researchers, including Dawson and Kim (2010), personalization is a strategic approach that employs advanced technologies that increasingly stimulate users and nudge them to make impulsive purchases. PM is also a well-established marketing strategy that aims to increase purchasing intention among consumers by delivering unique benefits for both consumers and organizations, like effectiveness, loyalty, and early feedback (Behera et al., 2019).

The internet has made personalization possible by enabling marketers to customize both communication and products to customers (Thorbjørnson, Supphellen, Nysveen & Egil, 2002). As a result, its use has expanded from simple customized greetings in communication with customers to, for instance, more targeted tips and deals like those in e-commerce and electronic content (Arora, Dreze, Ghose, Hess, Iyengar, Jing, Joshi, Kumar, Lurie, Neslin, Sajeesh, Su, Syam, Thomas & Zhang, 2008). Companies, from large corporations to startups, are increasingly incorporating personalized content into their advertising efforts. With consumer behavior continuously evolving, it is important for companies to remain relevant by facilitating the sales process. Consequently, there has been a growing need for new knowledge, strategies, and techniques among marketers of today and tomorrow, not just to grasp the transforming and technology-enabled marketing environment, but also to recognize the uniqueness of each consumer and to effectively communicate with them (Behera et al., 2019).

According to Setyani et al. (2019), it has also become necessary for marketers to learn how personalized advertisements work and how such marketing tactics could result in higher purchasing intentions. This is due to the increasing use of personalized advertisements, particularly on social media (Setyani et al., 2019). The growing popularity of social e-commerce on social media among consumers around the world has made it possible for marketers to access billions of users' data more efficiently than ever before, such as their likes and preferences (Setyani et al., 2019). Subsequently, marketers today could leverage such data to effectively tailor their marketing efforts to users, contributing towards the growth of online shopping, especially on social networking sites.

There are several additional benefits of online personalization. For instance, de Pechpeyrou (2009) claims that personalization is likely to improve the consumers' perception towards online shopping. Furthermore, due to the overwhelming number of products that can be accessed through the internet, it is pivotal for a business to acknowledge the need to prioritize items that best fit customers' preferences (de Pechpeyrou, 2009).

Personalized experiences could also make customers feel valued, resulting in a mutually beneficial exchange between a customer and an organization (Behera et al., 2019). A survey by Econsultancy and Monetate (2013, cited in Behera et al., 2019) among digital and e-commerce professionals revealed the growing importance of providing a personalized experience online, with 94 percent of the participants stating that personalization is a key component for their current and future achievements. Behera et al. (2019, p. 15), state that PM could, "make the customer feel as if their mind has been read". Accordingly, when a business is able to offer a personalized experience, customers feel more valued, which is likely to positively influence their purchasing intentions (de Pechpeyrou, 2009). Consequently, a personalized advertisement, when effective, is likely to result in higher click-through rates compared to traditional or non-personalized ads (Setyani et al. (2019)). Hence, as reported by de Kervenoael, Aykac, and Palmer (2009), personalized advertisements are, therefore, an important contributor to consumers' intentions and, ultimately, their buying behavior.

### 2.3. The Theory of Planned Behavior

Multiple studies have shown that PM on social media can influence consumers' intention to respond to advertisements, such as the purchasing of a product/service or clicking on an advertisement (Dehghani & Tumer, 2015; de Kervenoael, Aykac & Palmer, 2009; de Pechpeyrou, 2009; Setyani et al., 2019; Zhang & Mao, 2016). As such, a well-known socio-psychological theory for explaining and predicting human behavior, particularly their intention to act in specific situations, is the Theory of Planned Behavior, hereafter referred to as the TPB. The TPB, is a popular and accepted theory in marketing and communications and was originally developed by Ajzen in 1985 (Ajzen, 1991).

The TPB can be seen as an extension of the original theory of reasoned action or TRA by Fishbein and Ajzen (1967, cited in Ajzen, 1991), which aims to explain the relationship between attitude, individual behavior, and actions (Ajzen, 1991). The TPB, however, is unique as it focuses on explicating an individual's intention to conduct or perform certain behavior, rather than the act itself. Hence, the TPB aims to predict and explain human behavior in specific situations by arguing that an individual's attitude toward the behavior, their subjective norms, and perceived behavioral control are likely to increase their intention to perform a certain behavior. In turn, this results in a higher possibility of the individual performing said behavior, such as the purchasing of a product.

The TPB consists of six fundamental factors: attitudes, behavioral intention, subjective norms, social norms, perceived behavior, and perceived behavioral control, all of which help explain an individual's control over their behavior (Ajzen, 1991). Attitudes refers to the extent to which a person has positive or negative perceptions of certain behavior (Ajzen, 1991). This involves the critical evaluation of potential outcomes when it comes to performing certain behaviors (Ajzen, 1991). Behavioral intention, on the other hand, refers to the factors that are likely to motivate behavior, implying that the stronger the intention to perform a behavior, the higher the chances of an individual performing such a behavior.

Subjective norms, the third concept, refer to the beliefs surrounding an individual in their social environment (Ajzen, 1991). More specifically, this concept explains whether or not a person's social circle approves or disapproves of their intention to perform a behavior. Social norms, however, speak of the traditional codes of behavior within a group of people, as well as the broader cultural context (Ajzen, 1991). These 'social rules' are accepted as normative or standard in a group. Perceived power, on the other hand, refers to the potential factors that could either facilitate or affect an individual's ability to perform a behavior (Ajzen, 1991). In essence, perceived power signals a person's perceived ability to control each of these present factors. Finally, perceived behavioral control refers to the extent to which individuals perceive the performance of certain behaviors as easy or difficult (Ajzen, 1991).

Ajzen (1991, p. 188) claims, "perceived behavioral control can be assumed to reflect past experience as well as anticipated impediments and obstacles". According to Leeraphong and Mardjo (2013), the more experience customers have with a product or a brand, the more confidence they would have to make purchases on the internet. Giantari, Rahayu, and Solimum (2013) discuss the importance of experience by stating that positive perceived behavior from consumers, which comes from experience, is likely to motivate them to make and complete an online purchase. In addition, if a consumer has had a positive past experience, they are more likely to assess their experience in relation to the perceived behavioral control, which could result in a generally positive perception of shopping on the internet (Giantari, Rahayu, and Solimum, 2013).

Another study by Giampietri, Verneau, Del Giudice, Carfora, and Finco (2018) however, examined the extent to which trust influences consumers' purchasing decisions about short food supply chains and applied the TPB. The results from this investigation show that consumers' trust is a vital factor when it comes to their intention to both make and complete a purchase.

A different study by Hsu, Chang and Yansritakul (2017) examined the extent to which attitude, subjective norms, and perceived behavioral control influences purchase intention of green skincare products, and if country of origin and price sensitivity moderate this purchase intention. Price sensitivity is described as "the extent of consciousness and reaction displayed by consumers when finding differences in prices of products or services" (Monroe, 1973 cited in Hsu, Chang and Yansritakul, 2017, p. 147). The findings suggest that attitude, subjective norm, and perceived behavioral control have a significant impact on purchase intentions, and that the country of origin and price sensitivity individually enhance these positive effects. For price sensitivity, they found that purchase intention is significantly stronger when price sensitivity is high.

Finally, a research from Bhuyan (2011) applied the TPB to study consumers' personal preferences, such as health, taste and quality, and how it may influence consumers' attitudes towards food away from home. The study uncovered that consumers' personal preferences and lifestyle impacted the frequency of eating. Consumers preferred restaurants that had healthy options, provided good service and were convenient to them (Bhuyan, 2011).

For instance, if a restaurant provided healthy food, then the frequency of eating away from home increased (Bhuyan, 2011), indicating that consumers' preferences influence their attitudes and, subsequently, their behavior.

The application of the TPB across a number of different marketing and communication studies has proven its ability to effectively predict human intentions and behavior. A number of previous studies discuss the importance of several PM factors, such as attitude, trust, motivation, past experiences, and advertising attributes by applying the TPB as a framework to predict consumers' intention. Therefore, the TPB is an effective tool applied in this study to help us understand and explain the strength of the PM factors on consumers' intention to act upon personalized advertisements on Facebook.

## 2.4. Personalized Marketing Factors

When scrutinizing previous literature on PM, it was evident that many researchers argued for the connection between attitude, motivation, trust, past experience, advertising attributes, and personalized advertisements. Furthermore, previous research has shown that these factors were highly influential to consumers' intention to act, which could be explained through the TPB framework and, ultimately, help marketers maximize the use of PM to their advantage. Therefore, it became clear that there is an established relationship between PM, the identified factors, and consumers' intention to act. Below we will irradiate further on each factor, including how previous studies have described their effect on consumers' behavioral intentions.

### 2.4.1. Attitude

The concept of attitude has been thoroughly discussed by several researchers. Thurstone (1928) defined attitudes as a person's accumulative feelings toward a certain object. Similarly, Krech, Crutchfield, and Ballachey (1962, cited in Asiegbu, Powei & Iruka, 2012, p.38) describe attitudes as a person's positive or negative "evaluations, emotional feelings and action tendencies towards some object or idea". Asiegbu, Powei & Iruka (2012) argue that attitudes evolve from environmental stimuli, for instance, the offered products or communicated messages. According to Ajzen and Fishbein (1980, cited in Cherian and Jacob, 2012, p.119) "people consider the implications of their actions before they decide to engage or not engage in a given behavior". Cherian and Jacob (2012) further state that attitudes, in turn, can influence consumers' perceptions. They explain that a consumer's attitude towards an object will automatically be amplified for that specific object. In other words, positive attitudes lead to more positive attitudes.

Consumer's attitude towards advertising has been thoroughly discussed in a number of different studies, including Krugman, Bauer and Greyser (1969), who were among the first researchers to truly examine attitudes towards advertising. In recent years, researchers have also begun to unravel the connection between attitude and PM.

For instance, Pappas (2018) claims that a key reason for consumers to continue shopping online is happiness and positive emotions towards the brand. Furthermore, he found that customers who highly value their privacy, are more likely to overcome privacy concerns towards a personalized advertisement if they are happy and have a positive attitude. This argues for the importance of happiness, as Pappas (2018, p. 1695) explains “trusting a company is not enough”. Even when trusting a brand, consumers with negative emotions may end their shopping journey. Pappas (2018) further argued that the only time negative emotions can lead to intention to purchase is if and when consumers both trust the company and show happiness towards personalized services.

Similarly, Tran (2017) found that positive attitudes influence consumers’ behavioral intention, indicating that positive emotions could lead to an increase in consumers’ intention to act upon an advertisement. In addition, Tran (2017) states that a personalized advertisement is generally viewed as something credible and, therefore, leads to less avoidance and skepticism towards the advertisement. This is further argued to increase consumers’ positive attitudes. De Keyzer, Dens, and De Pelsmecker (2015) identified that the more personalized a Facebook advertisement was perceived, the more relevant it seemed. This was found to further increase consumers’ positive attitude towards the brand and click intention.

#### 2.4.2. Motivation

Motivation is a broad term that can be explained differently depending on context. However, two well-known concepts are hedonic and utilitarian motivations. Arnold and Reynolds (2003, p. 77) describe hedonic shopping motivations with six variables: adventure, gratification, role, value, social, and idea shopping motivations. Adventure shopping, for instance, can be described as the hunt for new and exciting products, while idea shopping is said to ensure consumers stay up to date with trends (Arnold and Reynolds, 2003; To, Liao and Lin, 2007). To, Liao and Lin (2007, p. 775) similarly describe hedonic motivation as the “search for happiness, fantasy, awakening, sensuality, and enjoyment”, as well as the study of shopping enjoyment. Hedonic motivation can also be described as the hunt for a great deal that consumers otherwise would not have found (Arnold & Reynolds, 2003; Babin, Darden & Griffin, 1994; To, Liao & Lin, 2007). In contrast, utilitarian motivation is based on a mission or task that needs to be completed, as well as how effectively the task is done (To, Liao & Lin, 2007). In other words, utilitarian motivation stems from a problem that needs to be fixed. To sum up, Batra and Athola (1991) describe utilitarianism as task-related and rational.

Personalized advertisements are found to influence consumers' motivation to engage with a brand. Vinereana and Opreana (2014) discovered that hedonic value has a stronger effect on customer satisfaction and loyalty than utilitarian value. In other words, the use of hedonic values such as excitement and shopping joy can influence consumers' perceived satisfaction and loyalty towards a company. Setyani et al. (2019) examined the effects of motivation that could influence consumers' intention to act when coming across a personalized advertisement.

The results of their study show that hedonic and utilitarian motivation are both drivers of impulsive buying behavior, with hedonic motivation being the strongest of the two. Furthermore, they argue that motivation results in higher click-through rates on social media when brands provide valuable hedonic information that enhances their credibility by, for instance, providing tailored, creative and entertaining content. Setyani et al. (2019) believe that the use of data allows for personalized advertisements to reflect and address needs that the users themselves have not been aware of, ultimately leading to a higher shopping enjoyment. The use of hedonic motivation in personalized advertisements could, therefore, lead to higher customer satisfaction and loyalty, as well as increased click-through rates.

#### 2.4.3. Trust

Trust has been studied by many researchers, from different backgrounds, resulting in numerous definitions (Fung & Lee, 1999; Gefen, 2002; Kumar, Scheer & Steenkamp, 1995; Mayer, Davis, Schoorman, 1995; Menon, Konana, Browne & Balasubramanian, 1999). However, in the context of online marketing, researchers share a similar definition. Trust is defined by Soh, Reid, and King (2009, p.86) as “confidence that advertising is a reliable source of product/service information and willingness to act on the basis of information conveyed by advertising”. They further mention that several scholars measure trust by; “integrity, reliability, benevolence, competence, confidence, likability, and willingness to rely on” (Soh, Reid, and King, 2009, p.86). Bart, Shankar, Sultan, and Urban (2005, p.134) agree, stating that, “online trust includes consumer perceptions of how the site would deliver on expectations, how believable the site's information is, and how much confidence the site commands.” To ensure consumers feel trust, it is also important that customers view the company as a credible source that is fully informed about the items it recommends (Shen, 2014). Bleiera and Eisenbeiss (2015) argue that trust in a retailer lies in consumers' belief that their personal data is handled safely, reducing possible privacy concerns, while Urban, Amyx, and Lorenzon (2009, p.180) state that privacy can be narrowed down to “integrity/confidence, ability/competence, and benevolence”. Integrity is referred to as following moral and ethical principles, while ability is explained as “the skills and competencies of the trustee in a specific context, related to the trusting party” (Koufaris & Hampton-Sosa, 2004, p. 378). In other words, how competent the retailer is in the information they share. Furthermore, benevolence is the amount of goodwill from the trustee towards the trusting party (Mayer, Davis, & Schoorman, 1995).

Tucker (2014) found that click-through rates increased when consumers were in control of the information they shared, suggesting that consumers' level of trust corresponds to the perceived safety of their personal data. What was interesting with Tucker's (2014) study was that Facebook introduced a policy change in their privacy control, allowing for users to easily change their privacy settings, reducing the amount of automatically shared information. This allowed for the study to investigate how changes in privacy controls could influence the effects of personalized advertisements.

The study indicated that before the change, personalized advertisements were underperforming compared to targeted and untargeted advertisements. However, after the change, the effectiveness of the personalized advertisements was significantly higher (Tucker, 2014). These findings suggest that when users are in more control of the information they share, the more inclined they are to engage with a personalized advertisement.

Aguirre et al. (2015) as well as Tucker (2014), also observed that click-through intentions increased when companies were open about their information collection strategies. Aguirre et al. (2015) also discovered that when consumers were aware that their data was collected, click-through intentions were more likely to increase compared to when they were unaware of such business tactics. Subsequently, trust in both the business' communication and their data collection is likely to result in higher click-through rates and whether consumers choose to continue purchasing online (Pappas, 2018).

#### 2.4.4. Past Experiences

Experiences are defined by Da Motta Filho (2017, p.17) as "the customer's interpretation of the meanings embedded [...] in the qualities and characteristics of the offering, resulting from the perception emerging from any sort of interaction". Similarly, Klaus and Maklan (2013, p. 227) define experience as, "the customer's cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behavior." Several researchers state that customer experience stems from the interaction between a company and its customers, or potential customers, through multiple channels resulting from functional and emotional cues (Klaus and Maklan, 2013).

Cognitive experience refers to the enjoyment, involvement, and concentration that leads to a subjective experience (Tyrväinen, Karjaluoto & Saarijärvi, 2020). According to Tyrväinen, Karjaluoto, and Saarijärvi (2020), a cognitive customer experience stems from the absorption of stimuli, such as when a current customer or potential customer processes information about a product/brand or when an individual is trying to depict a message conveyed in a review. Therefore, a cognitive customer experience can be referred to as any sort of interaction between a company and a consumer. On the other hand, Tyrväinen, Karjaluoto, and Saarijärvi (2020) state that consumers could also face an emotional experience resulting from the consumers' emotional reaction to stimuli. Subsequently, the emotional customer experience may influence the way consumers process information, which affects their memory and, ultimately, their behavior.

Experience, according to Maklan and Klaus (2011), refers to the consumers' assessment of the overall 'perceived' value rather than their expectations. Therefore, the overall assessment of their 'experience' refers to consumers' ability to interpret incoming information. As claimed by Maklan and Klaus (2011), such abilities arise from consumers' own objectives, which affect and determine their actual behavior, rather than the technical or service elements from a product or brand.

Nonetheless, consumers' goals and values and their influence on consumer behavior are highly dependent on context and are continuously evolving as a result of new technologies and growing competition. Furthermore, Maklan and Klaus (2011) claim that the way customers evaluate their experience with an organization goes beyond direct interaction with a product or brand. Instead, customers' evaluation extends to all sorts of interactions, whether directly or indirectly, with an organization through multiple channels and touchpoints.

A study by Pappas (2018) observed that customers' previous online purchase experiences greatly influence trust. The study concluded that a 'good' experience could positively influence consumers' level of trust towards, for instance, in a retailer, while a 'bad' experience is likely to result in the opposite effect. Consequently, Pappas (2018) observed that customers' trust, happiness, and experience with a brand are some of the most prominent determinants of whether or not a customer will either continue or stop shopping online. However, customers who have already had a positive experience with a brand are likely to continue shopping even with low levels of trust or negative emotions (Pappas, 2018). Pappas (2018) states that this is because consumers' past experience is likely to make them feel more confident and more in control to complete a purchase. However, he also discovered that bad service and bad product experience can negatively affect consumers and may lead to an end of their shopping journey.

#### 2.4.5. Advertising Attributes

According to Vatanparast (2007), marketing experts could benefit from personalization by obtaining a better understanding of the needs of users through access to their search history and virtual communities. Personalization can be defined as marketing efforts that use customer data to create customized content and services (Adomavicius & Tuzhilin, 2005) that can be adapted to fit different customer's needs (Lemke, Clark & Wilson, 2011). Other attributes that have also been extensively discussed in previous literature include, for instance, price in a study by Pennanen, Tiainen, and Luomala (2007) and brand in a study by Harridge-March (2006). However, for e-commerce, previous studies revealed that familiarity with an online store, its products, and reviews from other customers are among the most compatible attributes (Tamimi & Sebastianelli, 2015). These attributes are likely to influence consumers' perceptions of e-commerce and the extent to which they are willing to complete an online purchase (Tamimi & Sebastianelli, 2015). Other attributes like price and retail format, security, usability, design, trustworthiness, and delivery are also described to influence consumers' purchase decisions (Chen, Hsu & Lin, 2010). Nonetheless, during the evaluation of a product, Liesionis and Pilelienė (2007) argue that consumers do not necessarily consider all attributes. Therefore, it is the job of marketers to identify the most significant attributes for each product in order to arrange the most appropriate set that meet the needs of each customer (Liesionis & Pilelienė, 2007).

A study by Chen, Hsu, and Lin (2010) revealed that for service providers, price, interest, promotions were essential, while for media agencies, background information and type of device, such as mobile phone or computer, as well as consumers' preferences were among the most significant attributes.

This was further verified in an empirical survey among marketing professionals in an effort to identify the most relevant attributes when designing a personalized advertisement (Chen and Hsieh, 2012). The study revealed that price, preference, promotions, and interest were regarded as the most important attributes for personalized advertisements, which could influence consumers' purchase intentions. Similarly, Nguyen, Emberger-Klein, and Menrad (2019) observed that personalized price promotions effectively increase sales compared to untargeted price promotions. Shen (2014) established the importance of consumer preference with customer satisfaction in personalized marketing. For instance, recommendations matching consumers' preferences and customer knowledge lead to customer satisfaction. Customer satisfaction occurs when there is a compelling connection between the recommendation and customers' interests or previous purchases, but also when the recommendations fit their desires and match their needs such as what, where, and how much (Shen, 2014).

Advertisement attributes are, therefore, referred to in this paper as characteristics linked to the design or communicated messages embedded in an advertisement. Advertising attributes in PM, as explained by several studies (Chen & Hsieh, 2012; Chen, Hsu & Lin, 2010; Nguyen, Emberger-Klein & Menrad, 2019; Shen, 2014), include, price, preferences, interest, or any other attribute that influences consumers' purchase decisions when faced with a personalized advertisement.

## 2.5. Proposed Hypotheses

The presented literature and theoretical review deepen the understanding of PM through the application of TPB. The theoretical framework aims to combine findings from our literature review with the concepts of the TPB. Our literature review included a discussion of the PM factors and their correlation with consumers' intention to act. This section aims to summarize the findings of our literature review in order to construct suitable hypotheses. Consequently, this allows us to answer our research question, as well as sub-questions, and make predictions that will be tested in the empirical study. Below we present arguments for our statistical hypotheses as well as our conceptual framework.

A study by Pappas (2018) discovered that happiness and positive emotions are key reasons why consumers choose to continue purchasing online, arguing for the importance of positive attitudes towards the advertisement/advertiser. A number of previous studies, like those from Aaker and Stayman (1990) as well as Kim, Kim, and Park (2010) suggest that consumers' attitudes towards advertisements are primary indicators of the extent to which advertisements could be considered effective. Similarly, other researchers such as Boateng and Okoe (2015) discuss the correlation between the attitudes of social network users towards social media advertisements and their behavioral responses.

These studies have shown that consumers who generally have positive attitudes towards online advertisements are more inclined to respond by, for instance, clicking on the advertisement or making a purchase. Tran (2017) also found that positive attitudes influence behavioral intention, while De Keyzer, Dens, and De Pelsmecker (2015) argue that the attitude towards the source, in their case Facebook, influences click intention. Hence, all things considered, there is an evident correlation between consumers' attitudes towards advertisements and their behavioral responses (Wiese & Akareem, 2020). This could also be argued through the TPB from Ajzen (1991), who discusses the importance of attitudes from a socio-psychological perspective. Ajzen (1991), states that when consumers have a positive attitude, whether that is towards, for instance, a brand or a product, their intention to perform certain behavior is more likely to occur. Therefore, we can argue that when consumers generally hold a positive attitude towards a brand/company and its products or services, they are more inclined to respond to a personalized advertisement on Facebook. Therefore, we hypothesize that:

**H1:** There is a strong correlation between millennials' positive attitude and their intention to act upon a personalized advertisement on Facebook

Another factor found in previous literature was consumer motivation. Setyani et al. (2019) state that both hedonic and utilitarian motivation have an effect on consumer click-through rates on a personalized advertisement. However, they discovered that the effects of hedonic motivation are stronger. Vinereana and Opreana (2014) argue that hedonic values' effect on customer satisfaction and loyalty is much stronger than utilitarian values. These findings suggest that hedonic motivations such as excitement and shopping joy could strongly influence consumers' intention to act. Moreover, Mikalef, Giannakos, and Pateli (2013) argue that hedonic elements are significant when considering the platforms through which product browsing and e-commerce occur. However, even if and when e-commerce stores adhere to all functional elements that customers typically expect, they should not fail to recognize the mediums on which consumers also hope to find inspiration for future purchases (Hirschman & Holbrook, 1982). According to Ajzen (1991), an individual's intention to perform a certain behavior can be derived from what he refers to as behavioral intention. Behavioral intention is a key component of the TPB, as explained in section 2.3., and refers to factors that motivate behavior. Since hedonic motivations are found to influence consumers' intention to act (Setyani et al., 2019; Vinereana & Opreana, 2014), we argue that Ajzen's (1991) behavioral intentions could help explain consumers' motivation to respond to a personalized advertisement on Facebook. Hence, as argued by Hirschman and Holbrook (1982), since social media makes it possible for greater user participation, which is intrinsically enjoyable, it can be said that an individual's hedonic motivation to engage with a brand, is expected to effectively influence their intention to act upon a personalized advertisement on Facebook. Therefore, we hypothesize that:

**H2:** There is a strong correlation between hedonic motivation and millennials' intention to act upon a personalized advertisement on Facebook

Furthermore, Pappas (2018) identified that trust is a key reason why consumers choose to continue purchasing online. Koufaris and Hampton-Sosa (2004) also argue for the importance of trust, as an individual's readiness to trust has been found to influence customers' trust in online shopping (Lee & Turban, 2001). Koufaris and Hampton-Sosa (2004) also discovered that trust positively affects customer's attitude towards companies, resulting in customers being more inclined to buy from a company's website. Moreover, Aguirre et al. (2015), as well as Tucker (2014), established that click-through intentions increased when companies were open about their information collection strategies, emphasizing the importance of trust. These findings suggest that trust can be referred to as trust in both the business' communication and data collection strategy. A study by Giampietri et al. (2018), applied the TPB in order to measure the role of trust in consumers' purchasing choices. The study found that trust is a significant factor in consumers' purchase intention. Accordingly, it can be argued that high levels of trust from consumers are likely to increase their intention to respond to personalized advertisements on Facebook. Therefore, we hypothesize that:

**H3:** There is a strong correlation between trust and millennials' intention to act upon a personalized advertisement on Facebook

Researchers describe 'experience' as the interaction between a company and its customers through multiple channels (Klaus and Maklan, 2013), as well as the consumers' interpretation or cognitive and affective assessment of the interaction (Da Motta Filho, 2017; Klaus & Maklan, 2013). However, Maklan and Klaus (2011) found that experience goes beyond just the interaction between a product or brand; it could also be direct or indirect contact with an organization through multiple channels. Tyrväinen, Karjaluoto, and Saarijärvi (2020) state consumers' cognitive experience, for instance, could influence the way they process information and, subsequently, their behavior. Pappas (2018) established that consumers' past experience with a brand influences their behavioral intentions and that positive experiences with a brand could lead to a continued shopping journey. Similarly, Behera et al. (2019) explain that personalized experiences ensure customers feel valued and that their mind has been read, leading to a better e-shopping experience. Ajzen's TPB also explicates that a consumer's past experience can be explained through their perceived behavioral control (Ajzen, 1991). For instance, Leeraphong and Mardjo (2013) identified that a positive past experience with a product or brand increases consumers' intention to make an online purchase. This argument is supported by Giantari, Rahayu, and Solimum (2013) who claim that a positive past experience, based on the consumers' perceived behavioral control, is likely to positively influence their intention and perception of online shopping. Therefore, we hypothesize that:

**H4:** There is a strong correlation between past experiences and millennials' intention to act upon a personalized advertisement on Facebook

Several studies suggest that price and promotion are key attributes when designing a personalized advertisement (Chen, Hsu & Lin, 2010; Chen & Hsieh, 2012; Pennanen, Tiainen & Luomala, 2007; Shen, 2014). Chen, Hsu, and Lin (2010), for instance, explain that price is a typical attribute that influences consumers' purchasing intentions and ultimately, their purchasing decisions. Furthermore, Nguyen, Emberger-Klein, and Menrad (2019) identified that personalized price promotions increase sales, compared to untargeted price promotions. Similarly, Choi, Kwon and Shin (2017) found that location-based systems that offer personalized pricing information, results in more informed decisions by consumers. Pappas, Kourouthanassis, Giannakos, and Chrissikopoulos (2016) also emphasize that personalization increases consumer's intention to purchase, while Shen (2014) states that recommendations that fit a consumer's price expectations lead to customer satisfaction. When interviewing marketing professionals, Chen and Hsieh (2012) discovered that price and promotions were key attributes for marketers when designing personalized advertisements. Price sensitivity, as reported by Hsu, Chang, and Yansritakul (2017), influences attitude, subjective norm, and perceived behavioral control, which ultimately affects purchase intention. Chen and Hsieh (2012) explain that in addition to price and promotion, preference and interest are two other essential attributes to consider when designing a personalized advertisement. Personalization is said to ensure consumers' needs are met by retailers and, subsequently, influences consumers' repeated purchase intention (Ha, Muthaly & Akamavi, 2010; Lemke, Clark & Wilson, 2011). Tyrväinen, Karjaluoto and Saarijärvi (2020) claim that personalization reduces the customer's amount of searches as well as product evaluation costs, both leading to an increase in customer loyalty. Shen (2014), on the other hand, discussed the significant influence of PM on consumer preferences and the extent to which this could lead to customer satisfaction. He argues that when brands approach consumers and recommend items that suit their interests, preferences, and expectations, consumers are more likely to view the organization as a credible source that is accurately informed about the recommended items. Furthermore, a study by Bhuyan (2011) revealed that consumers' personal preferences influenced their attitude, leading to an increase in purchase behavior. From the perspective of the TPB, this suggests that consumers' personal preferences or interests, as well as advertisement features like price and promotion, hereafter referred to as advertisement attributes, can lead to an increase in consumers' intention to act, ultimately influencing their behavior. Therefore, we hypothesize that:

**H5:** There is a strong correlation between the advertising attributes and millennials' intention to act upon a personalized advertisement on Facebook

Considering the evident importance of all these factors, we argue that it may be worth also analyzing the combined relationship between all the factors and millennials' intention to act upon personalized advertisements on Facebook. Consequently, we take a more global perspective to gain an understanding of the multiple linear relationship between positive attitude, hedonic motivation, trust, past experience, advertising attributes, and millennials' intention to act. Therefore, we hypothesize that:

**H6:** There is a multiple linear relationship between all PM factors and millennials' intention to act upon a personalized advertisement on Facebook

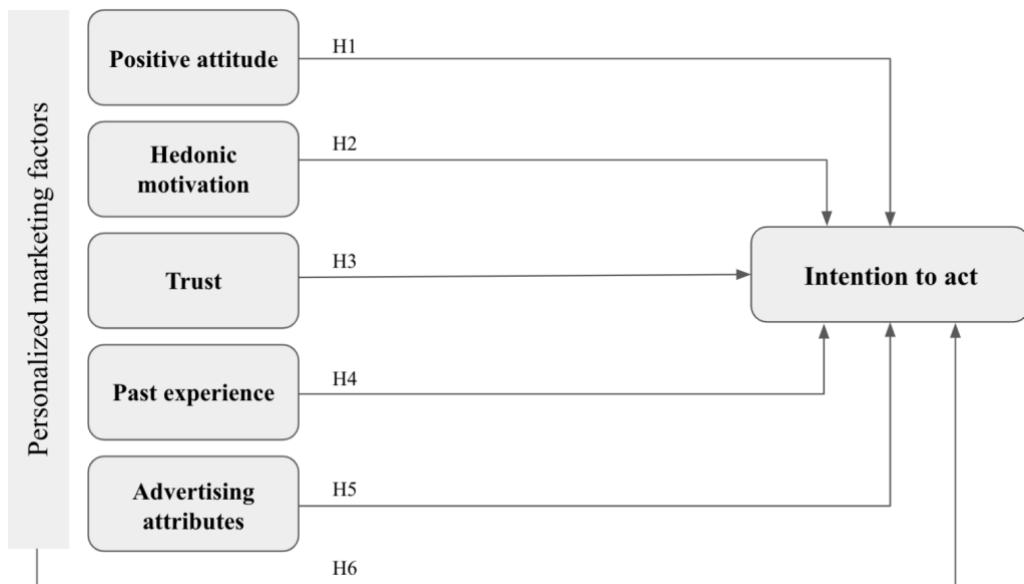


Figure 1: Conceptual Framework

### 3. Methodology

This section aims to familiarize the reader with the selected research tools and methods that we utilized to collect and analyze data, enabling us to test the proposed theoretical framework and hypotheses. We begin by introducing the research approach, a detailed explanation of the research process, and the scale development of our survey items. This section also consists of a detailed description of our survey items, developed to test both the identified items from previous studies and our operationalized items from relevant literature. This is followed by a more in-depth explanation of the data collection strategy, our chosen analytical tools, and the establishment of the validity and reliability conditions.

#### 3.1. Research Philosophy

According to Bell, Bryman and Hartley (2019, p. 25):

[t]he philosophy of social science seeks to make explicit, and understand, assumptions in three spheres, ontology - our understanding of what reality is; epistemology - our understanding of how we know reality; and methodology or research strategy - our understanding of the best way to research our ontological and epistemological assumptions.

In other words, the methods we use to conduct a research influence how we utilize and analyze previous literature.

From an ontological perspective, we argue that our research took a ‘realist’ approach in our understanding of these philosophical concepts. This implies that our understanding of reality is entirely objective and, thus, independent of our own thoughts, ideas, and beliefs. Therefore, we followed the assumption of Easterby-Smith, Thorpe and Jackson (2015, p. 340.), who states that “physical and social worlds exist independently of any observations made about them”.

From an epistemology perspective, we took a positivist approach due to the study's quantitative nature. According to Burns and Burns (2008), when taking a positivist approach, the researcher sees the world as objective as possible, a place with universal laws and causality, and that the researcher is and remains separate from the studied subject. In our case, this implies that we were critical throughout the research process and supported factual and credible data obtained during the data collection process. For instance, this is evidently the case in our empirical study. We argue that our data is quantifiable, therefore, processed in an objective manner through the software program of SPSS. This enabled us to conduct a statistical analysis that is as objective as possible, following the collected empirical data.

All things considered, ontological and epistemological perspectives are not set in stone as they come with certain limitations. For instance, we have to acknowledge the limited time at our disposal to produce this study as well as the availability of other resources, including but not limited to the available tools to both develop and distribute our survey. Our individual experiences in the world could also have consciously or unconsciously influenced our minds and the assumptions that we have made throughout this study, which may have impacted the research process. Nonetheless, we have tried to remain as objective as possible by using a realist and positivist approach.

### 3.2. Research Approach and Method

In the following subsection, the basis on which the research had been built, is introduced. The fundamental aim is to present our perspective and assumptions of the topic, PM, while also discussing the research approach.

As the primary objective of our research is to investigate how strongly the PM factors, positive attitude, hedonic motivation, trust, past experience, and advertising attributes, correlate with millennials' intention to act upon personalized advertisements on Facebook, we believe that a correlation study is most appropriate for our research. A correlation study enables us to uncover the strength of the relationship between the independent variables, the PM factors, and the dependent variable, millennials' intention to act.

We began our research by scrutinizing previous studies to identify existing research gaps and make predictions for further investigation. Hence, throughout this study, we resorted to a deductive research approach. According to Bell, Bryman and Hartley (2019), a deductive research approach starts with a theory, followed by hypotheses, data collection, findings, confirmation or rejection of the hypotheses, and revision of the theory. Similarly, our paper began with an extensive analysis of previous literature to obtain knowledge about PM, including the extent to which this was covered in previous studies. This led to the identification of some of the issues not previously explored and the discovery of several research gaps, enabling us to develop our main research question and research objectives.

An important first step in our research process was obtaining in-depth information by reviewing existing material on our chosen research topic (Burns & Burns, 2008). Therefore, an extensive analysis of previous research on PM made it possible to establish the basis for classifying positive attitude, hedonic motivation, trust, past experience, and advertising attributes as significant factors which correlate with millennials' intention to act upon personalized advertisements on Facebook. These factors have been selected based on the degree to which they have been discussed in previous literature, which led to their conceptualization, allowing for more investigation into their effectiveness in personalized advertisements on Facebook. Furthermore, while several studies covered some of these factors to some degree, they failed to expand their scope by examining how strongly they correlate with consumers' intention to act in comparison to one another.

Following the identification and application of the Theory of Planned Behavior (TPB) by Azjen (1991), we were able to produce the theoretical framework and make predictions in the form of six hypotheses. The TPB allows us to better understand consumer behavior from a socio-psychological perspective. The framework also enabled us to observe how millennials' attitudes, subjective norms, and perceived behavioral control could influence their intention to act upon personalized advertisements on Facebook. Thus, the previously identified PM factors, through the application of the TPB, made it possible to draw the connection between the PM factors and consumers' intention to act. At the same time, the empirical study enabled us to establish the strength between each factor and millennials' intention to act upon a personalized advertisement on Facebook.

Following the identification of the most discussed PM factors in previous literature, we proceeded by determining items related to these factors which have been tested in previous studies. One premise for using the found items was that they had been tested for internal reliability to ensure they fit the factors we aimed to test. We then adapted these items to ensure they were suitable for the aims of our study, for instance, by modifying 'advertisements' to 'personalized advertisements'. For the factors of past experience and advertising attributes, it was proven difficult to obtain four complete suitable items that fit our research aim and/or the findings of previous literature. Therefore, we operationalized all four items for past experience and one item for advertising attributes, from previous literature, see section 3.4.2. These operationalized items were then pre-tested through qualitative interviews to examine their relevance and appropriateness for this research. The qualitative interviews confirmed that these operationalized survey items were suitable for the given study. In fact, relatively small changes had to be made to these statements, namely for clarity and comprehension. However, content-wise, the proposed survey items remained the same as they were originally proposed following the operationalization of the PM factors. The respondents' answers suggest that the items captured the factors we aimed to examine.

Thereafter, the research process proceeded with an official empirical study, developed in the form of a survey on Google Forms. The survey was developed and sent to millennials between the ages of 24-40, enabling us to test our hypotheses and determine the relevance of each item in the theoretical framework. Further explanation of our sampling method is described in section 3.3.3.

### 3.2.1. Research Design

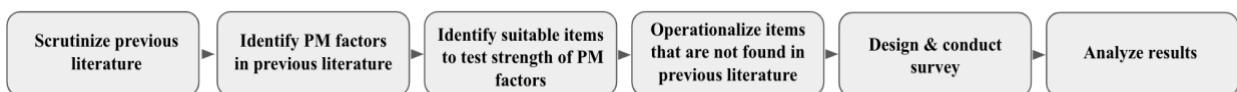
The research design acts as a guideline for the execution of our chosen method and analysis of the collected empirical data. The choice of research design influences the priority given to a set of dimensions in the research process, and the chosen design may influence the study's reliability, validity, and replicability (Bell, Bryman & Hartley, 2019). This is a quantitative study, which makes it possible to test the developed theoretical framework and hypotheses, and, in turn, enable us to answer our research questions. Deductive research, also referred to as a top-down approach, aims to test an existing theory with a large sample size.

Therefore, our study is more aligned with quantitative deductive research since our predictions are based on previous literature and theory, which are then tested among a large group of millennials between the ages 24 and 40, leading to the confirmation or rejection of our hypotheses (Burns & Burns, 2008).

There are several research designs that may be applied, such as cross-sectional, longitudinal, and case study designs in quantitative research. Since the aim of our paper is to investigate how strongly the identified PM factors correlate with millennials' intention to act on Facebook, we argue that a cross-sectional research design was the most suitable approach. A cross-sectional research design, also known as social survey design, made it possible to test variations in the target group, for instance, between gender and age (Bell, Bryman & Hartley, 2019). This approach is further described by Wang and Cheng (2020, p. S65) as "taking a "snapshot" of a group of individuals" and the subjects in the study are chosen from a population that has "potential relevance to the study question". When conducting cross-sectional research, quantitative surveys are appropriate for data collection as they ensure simultaneous collection of a variety of information (Bell, Bryman & Hartley, 2019). The survey was, therefore, constructed with a demographic section, making it possible for us to examine whether the strength between the found PM factors differed between demographic features. A cross-sectional design is also an effective and inexpensive study due to its quantitative nature and simultaneous data collection method (Wang & Cheng, 2020).

As with any research design, there are certain factors to take into account to ensure the strongest level of reliability and validity as possible. Firstly, when making distinctions between certain demographics in our findings, there is also a need for the sample to be adequate for the chosen demographic variables (Bell, Bryman & Hartley, 2019). Wang and Cheng (2020) further argue that the selected sample needs to derive from a large and heterogeneous population. Therefore, proportionate numbers of samples of a demographic feature, for instance, gender, are also needed to make distinctions between the variations of a population. For this to be possible, the analysis was only based on demographic features with enough respondents to make assumptions about the variations. By limiting the target population to one generation, it was possible for us to obtain a sufficient number of respondents to measure variances in demographic features. Secondly, while Bell, Bryman, and Hartley (2019) argue that a cross-sectional design only examines the relationship between variables, for the aim of our study, we utilized Pearson's correlation to identify the strength of this relationship between the variables (Bell, Bryman & Hartley, 2019; Burns & Burns, 2008). This was done by first collecting ordinal data using a 7-point Likert scale through our survey which we then calculated into a mean value of the survey items for each factor. This allowed us to obtain index values, which are necessary when using Pearson's correlation (Burns & Burns, 2008). Lastly, the sampling process poses risks of selection bias. Selection bias refers to the risk of choosing a sample that does not represent the target population. To tackle this, the survey began with a set of demographic questions that filtered out respondents who did not fit our target population.

Another form of selection bias is nonresponse bias, the risk of nonresponders' answers differing from the responders, which could lead to unrepresentative results of the target population (Wang & Cheng, 2020). To minimize the risk of nonresponse bias, one may utilize incentives for the respondents (Levin, 2006). In our empirical study, we offered respondents a small incentive to the respondents by giving them the opportunity to win a gift card after completing the survey. The hope was also that this incentive reduced the risk of low response rates (Wang & Cheng, 2020). Burns and Burns (2008), however, states that incentives should not negatively affect participants, nor should they be disproportionately large compared to the effort as this may lead to respondents acting in contradiction to their own interests. Therefore, the incentive was to allow participants to enter a draw of 2 gift cards from Amazon of 100 Swedish crowns as we believe this to be an appropriate amount for the effort of completing the survey.



*Figure 2: Research Process*

### 3.3. Data Collection Methods

#### 3.3.1. Primary and Secondary Data

In order to obtain a substantial understanding of PM and establish both its relevance and importance, we analyzed and incorporated secondary data through the identification of relevant previous research literature. Burns and Burns (2008) state that secondary data can be information extracted from, for example, company data on sales, government records, and previous literature found in academic journals and/or through library databases. In our case, secondary data from several well-known databases such as Scopus, a platform that brings together multiple quality scientific research, was used to identify relevant previous research material on PM. Nonetheless, in the central part of our study, we also located statistical data sources, such as Statista, in order to obtain statistics that enhanced our understanding of the extent to which millennials use social media, particularly Facebook.

In addition to the use of secondary material, we also gathered primary data through our own empirical study, consisting of a survey, following the identification of the most relevant survey items. As described by Burns and Burns (2008, p. 65) primary data is “data collected by the researcher for the analysis.” Primary data is also referred to as ‘original data’ or ‘field data.’ According to Easterby-Smith, Thorpe, Jackson, and Jaspersen (2018), while the collection of primary data could be time-consuming and requires more resources to obtain, such data enables researchers to have better control over the data and sample, raising confidence about the extent to which the collected material match the research purpose. Moreover, primary data also made it possible for us to test our predictions against previous literature, enabling us to accept or reject our hypotheses.

In terms of software programs, our survey was designed using Google Forms. As once claimed by Easterby-Smith et al. (2018), using a platform such as Google Forms makes it efficient to withdraw the collected data directly into an analytical program like SPSS. Using a well-equipped program like SPSS reduces the risk of errors, such as transcription errors, that could occur if the collected data is processed without the use of such a software, while also allowing for data interpretation almost instantly (Easterby-Smith et al. 2018). Moreover, given the limited time available to conduct this study, we believe it was most appropriate to use a cross-sectional research design through a one-time survey. As mentioned in section 3.3., a cross-sectional research design makes it possible for the researchers to collect quantitative data and discover patterns and associations between two or more variables (Bell, Bryman & Hartley, 2019).

### 3.3.2. Target Population

Millennials are in this study defined as individuals born between 1981 and 1996 (Dimock, 2019), in other words, 24- to 40-year-olds, who are among the most active users on Facebook (Statista, 2021c) and, therefore, consist of a large number of potential customers for companies of all sizes. Hence, we argue that it is worth studying the strength and importance of the identified PM factors among this generational cohort.

In terms of social media, Facebook is the leading platform in the world and millennials are the most active users on the platform (Statista, 2021b; Statista, 2021c). Therefore, we opted to study the PM factors; positive attitude, hedonic motivation, trust, past experience, and advertising attributes among millennials and how strongly these factors correlate with their intention to act upon personalized advertisements on Facebook. By limiting the target population to millennials on Facebook, we are hoping to limit the sample to a group of individuals who are actively subjected to advertisements on the platform. We also look at the participants' demographic features such as gender, education, and nationality. Such information enabled us to uncover the differences and similarities among millennials.

Facebook users across the world could be regarded as a population that is exposed to the same, or similar, protection regulations on the platform. The advertisement policy and reviewing process that the social media giant has in place are similar globally, regardless of a company's or individual's geographical location (Facebook, n.d.a.). This is due to Facebook's internal Advertising Policies, serving as guidelines for which advertisements are reviewed, accepted, and shared on the platform, based on the kind of data collected from users (Facebook, n.d.a.). In 2018, Facebook also updated its advertisement targeting tools and education to ensure that all advertisements comply with their advertisement principles (Facebook, 2018). For instance, Facebook actively works to reduce the misuse of its advertising platform by deleting fraudulent advertisements (Facebook, 2018). They further limit advertisers to exclude certain audiences from advertisements based on attributes such as ethnicity and religion (Facebook, 2018). In Europe, Facebook is also obligated to comply with the General Data Protection Regulation, also known as GDPR (Facebook, n.d.b.).

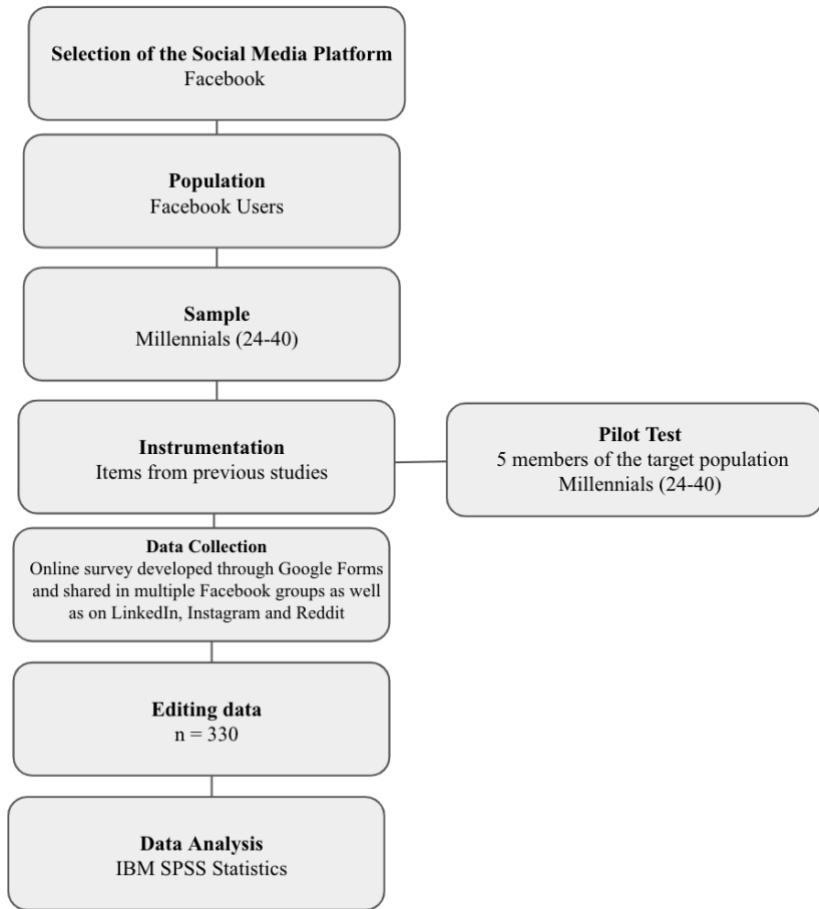
This implies that they are expected to adhere to GDPR in the way that it processes user data, the collection and use of personal data across the continent. Should Facebook fail to adhere to or in any way violate the GDPR, the company faces significant fines (Facebook, n.d.b.). Therefore, particularly in Europe, the company is required to explicitly ask users for their consent when collecting, processing, and using their data.

These arguments imply that advertisements on the social platform undergo similar universal policies and guidelines, meaning that they arguably appear in a similar manner for every user whenever and wherever they are shown. The only difference in the advertisement content, based on geographical location, is that companies may be utilizing user data on Facebook to target certain advertisements based on the users' location. However, we argue that all users are subject to similarly structured advertisements and could be viewed as a group that is fundamentally exposed to advertisements similarly on the social platform. Our target population is, therefore, not restricted to a nationality as we view the platform's users' as 'Facebook natives'.

### 3.3.3. Sampling Method

We have opted for a non-probability sampling process as it was not possible to conduct a probability sampling in person due to COVID-19 as well as a lack of a suitable sampling frame for our target group. The sampling process, therefore, began by first distributing the survey to friends and peers between the ages of 24 and 40, followed by sharing the survey on Facebook, LinkedIn, Instagram and Reddit. In other words, we used a convenience sampling method to reach members of our target population. We also shared the survey in several Facebook and Reddit groups that made it possible for us to reach as many people as possible.

Thereafter, we used a snowball sampling approach by inviting respondents to pass on the survey, as a next step to reach a necessary and appropriate sample size. Snowball sampling makes it possible for our survey to reach more respondents. However, non-probability sampling also poses certain risks compared to probability sampling. For instance, a non-probability sampling method risks making human judgments when selecting possible respondents (Bell, Bryman & Hartley, 2019). Thus, considering that we used both convenience and snowball sampling, it was important to, as closely as possible, reach a representative sample to reduce this human judgment as best as we could. However, it is worth noting that due to the use of a non-probability sampling method, the conducted tests in this study are used as a benchmark rather than generalizable results. To be able to draw generalizable results across a target population, probability sampling methods are preferred. To limit these risks, we aimed to control the representativeness by randomly selecting participants from our final number of respondents, which consisted of 1007 respondents. This was done by randomly selecting participants to reach a sample of equal amounts of respondents based on their gender and age. The smallest group of participants, 55 respondents, were males aged 36 to 40. Therefore, we randomly selected 55 females and males in each of our three age categories: 24 to 29, 30 to 35, and 36 to 40. This was done through Google Sheets, using a function which randomly selected these respondents. In the end, we reached a final sample size of 330 respondents.



*Figure 3: Sampling Process*

### 3.3.4. Sampling Size

According to Burns and Burns (2008), the Central Limit Theorem implies that if the sample size for a study consists of 30 participants, an increase in the distribution of the sample means is likely to result in normal distribution from the same sample size, without the influence of the population from which the sample is drawn. By doing this, the sample size is likely to result in the same sample and population means. Central Limit Theorem is one method that may be used for defining an appropriate sample size. Marañon (2021a) suggests that a sample size of 300 to 500 participants is typically needed for marketing studies. Nevertheless, a minimum of 200 participants is said to be sufficient for such studies (Marañon, 2021a). To further validate the sample size, we have also considered the sample sizes of other studies that were similar to ours. For instance, a study by Chiu, Kim and Won (2018), who investigated consumers' intention to act in e-commerce, had a sample size of 314 valid participants. The sample size of this study aligns well with what is proposed by both Burns and Burns (2008) and Marañon (2021a). However, trusting previous research may mean that we also accept their calculation errors. We, therefore, argue that based on previous research and method literature, a minimum of 300 valid participants was a suitable aim for our sample size.

To draw conclusions from our empirical study, it was necessary to ensure that the sample was equally distributed among individuals of different genders and ages. Therefore, based on the total survey respondents, we randomly selected 50 percent male and 50 percent female respondents, and, similarly, equal amounts of respondents in each of the three age categories: 24 to 29, 30 to 35 and 36 to 40. This ensured that we had sufficient respondents for these demographic features to draw cross-sectional conclusions.

### 3.3.5. Survey Design and Structure

In order to measure the strength of the correlation between the PM factors and millennials' intention to act on personalized advertisements on Facebook, we designed a survey testing each of these variables, see Appendix A. The survey consisted of four items per factor, described in section 3.4., allowing us to test each factor through a multiple-item measure. A 7-point Likert scale was used, making it possible to measure millennials' feelings towards each survey item. Following the structuring of the survey, we sent an initial version of it to a small group of people from our target group, to ensure clarity and comprehension. Thereafter, participants expressed that the item, "Seeing a personalized advertisement on Facebook is thrilling" needed further explanation. Therefore, a Cambridge dictionary explanation of the word 'thrilling' was added. Once the survey was deemed as acceptable, it was officially sent to our target population, millennials between 24 and 40 years old, enabling us to collect primary data to answer our research question.

The survey began with a demographic section, which enabled us to conduct comparison tests across demographic characteristics. This cross-sectional survey design made it possible to study the PM factors, independent variables, and how strongly they correlated with millennials' intention to act, dependent variable, while simultaneously looking at their demographic characteristics, such as gender and education level. This section also contained an opt-out question for age. If the participants answered, '23 or below' or '41 or above', the survey came to an end. This ensured that participants who were not part of our target population were excluded. Next, the survey also contained a short section aiming to capture the respondents' Facebook usage. Thus, in this section, the participants were asked if they are Facebook users, and if they answered 'no', the survey also came to an end. By including this opt-out question, we attempted to limit respondents to those who have been exposed to Facebook advertisements before. Thereafter, a section explaining the meaning of personalized marketing, which included some visual examples, was given to the respondents. This was followed by the PM factors' items and the items for intention to act, namely, the core part of our empirical study.

As presented in the literature review, the TPB, is a well-known socio-psychological theory that aims to predict individuals' behavioral intentions (Ajzen, 1991). According to this framework, attitude, subjective norms and perceived behavioral control are able to influence an individual's intention and, as a result, their behavioral response/outcome on behavior (Ajzen, 1991).

Consequently, the items in the central part of our survey were selected and included to identify the extent to which the PM factors, positive attitude, hedonic motivation, trust, past experience, advertising attributes, correlate with millennials' intention to act upon personalized advertisements on Facebook. Thus, the application of the TPB allowed us to draw the connection between PM factors and millennials' intention to act by determining the strength of their relationship and rank them accordingly.

Nonetheless, there are several challenges and opportunities to take into account when conducting an online survey. For instance, Burns and Burns (2008) discuss that some of the advantages of conducting an online survey, including the fact that a survey is generally inexpensive, easy for cross-cultural research, and often includes automatic analyses of data since data is recorded through the chosen survey platform, as well as less time-consuming compared to other research methods. On the other hand, Burns and Burns (2008) also list some disadvantages, including the fact that participants could submit a survey multiple times, technical issues that could occur, little control over experimental design, as well as ethical and data storage issues. Therefore, we argue that it was necessary to properly prepare for some of the issues we encountered when developing and publishing our survey. An initial challenge in our empirical study included accessibility to sufficient members of the target group in a short period of time. Another challenge was filtering out the number of respondents who were either not part of our target group and those who completed the survey multiple times. However, we did our utmost to minimize the impact of some of these expected challenges by, for instance, ensuring that we had chosen the most optimal survey platform through the comparison of multiple platforms against one another. Google Forums, the chosen survey platform, enabled us to quickly design and publish our survey online to collect and analyze data efficiently. Thereafter, to further ensure these challenges were taken into account, the empirical data was then reviewed, which included the filtering of fraudulent responses and then followed by its input in SPSS for further analysis.

## 3.4. Measurement and Scaling Procedures

### 3.4.1. Scale Development

The survey consisted of items derived from previous literature based on the PM factors, also known as our independent variables, positive attitude, hedonic motivation, trust, past experience, and advertising attributes. Items were only chosen if they had been previously tested for internal reliability with, for instance, Cronbach's alpha. When conducting a test with Cronbach's Alpha, an alpha score of 0.8 is deemed as highly satisfactory and 0.7 is acceptable (Bell, Bryman & Hartley, 2019; Burns & Burns, 2008), these scores were, therefore, presented as the threshold for the items to be accepted. Furthermore, all found items were previously measured by a 7-point Likert scale, with 1 being "strongly disagree" and 7 being "strongly agree". The Likert scale aims to measure respondents' attitudes towards the presented survey statements (Burns & Burns, 2008). Note that attitude in this context is not equivalent to our identified PM factor 'attitude', but rather respondents' general perception of the items tested in our survey.

This reasoning makes it possible to identify respondents' attitude towards our operationalized concepts by using a similar 7-point Likert scale to previous research, as this scale was used in their studies. This enabled us to measure our findings through ordinal data. Once the empirical findings had been summarized, a mean was calculated for the independent and dependent variables. This allowed us to calculate millennials' 'attitudes' towards each factor as well as their intention to act upon personalized advertisements on Facebook. Once the means had been established, we were able to calculate the strength of Pearson's correlation between the PM factors and millennials' intention to act. Below, we present each of the items which have been derived from previous literature, as well as their level of internal reliability.

### *Positive Attitude*

The attitude-related items were included to identify participants' general attitudes towards advertising and to obtain a broad picture of what participants generally feel about personalized advertisements on Facebook. Consequently, these items were derived and adapted from Weise and Akareem (2020) and consisted of items such as, 'In general, I like personalized advertisements on Facebook'. Each of the items measured a construct reliability above 0.80 and were, consequently, deemed as acceptable (Weise & Akareem, 2020).

| Factor            | Items   | Source                              |
|-------------------|---|-------------------------------------|
| Positive attitude | In general, I like personalized advertisements on Facebook  | adapted from Weise & Akareem (2020) |
|                   | I would describe my overall attitude towards personalized advertisements on my Facebook page as favorable | adapted from Weise & Akareem (2020) |
|                   | Personalized advertisements on my Facebook page are interesting to me                                     | adapted from Weise & Akareem (2020) |
|                   | I consider personalized advertisements on my Facebook page a good thing                                   | adapted from Weise & Akareem (2020) |

*Table 1: Positive Attitude Items*

### *Hedonic Motivation*

The subsequent items, regarding participants' hedonic motivation, also applied the 7-point Likert scale and aimed to measure the extent to which participants feel that personalized advertisements on Facebook are thrilling, fun, exciting, and enjoyable. These statements were derived and adapted from Mikalef, Giannakos and Pateli (2013). Composite reliability values are considered acceptable as they all measured above 0.89 (Mikalef, Giannakos & Pateli, 2013).

| Factor             | Items  | Source  |
|--------------------|--|---|
| Hedonic Motivation | Seeing a personalized advertisement on Facebook is fun       | adapted from Mikalef, Giannakos & Pateli (2013) |
|                    | Seeing a personalized advertisement on Facebook is exciting  | adapted from Mikalef, Giannakos & Pateli (2013) |
|                    | Seeing a personalized advertisement on Facebook is enjoyable | adapted from Mikalef, Giannakos & Pateli (2013) |
|                    | Seeing a personalized advertisement on Facebook is thrilling | adapted from Mikalef, Giannakos & Pateli (2013) |

*Table 2: Hedonic Motivation Items*

### *Trust*

Obtaining data regarding millennials' level of trust in personalized advertising on Facebook was the subsequent goal. Therefore, we extracted and adapted trust-related statements from Koufaris and Hampton-Sosa (2004), which measured the degree to which participants strongly disagree or agree that trust in both the social media platform, Facebook, as well as the advertisement source is important. The Cronbach's alpha values were higher than 0.8 indicating highly satisfactory levels of reliability (Koufaris & Hampton-Sosa, 2004).

| Factor | Items  | Source                                      |
|--------|--|---|
| Trust  | I believe in the information that personalized advertisements on Facebook provide me | adapted from Koufaris & Hampton-Sosa (2004) |
|        | Facebook is a trustworthy platform for personalized advertisements                   | adapted from Koufaris & Hampton-Sosa (2004) |
|        | I trust that personalized advertisements on Facebook keep my best interest in mind   | adapted from Koufaris & Hampton-Sosa (2004) |
|        | Personalized advertisements on Facebook keep promises made to me                     | adapted from Koufaris & Hampton-Sosa (2004) |

*Table 3: Trust Items*

### *Past Experience*

Relevant items were not available in previous literature and were, therefore, operationalized for our survey, see section 3.4.2.

### *Advertising Attributes*

Next, advertising attributes, consisting of preference, interests, promotions, and price were tested through four survey items. The first three items, preferences, interests, and promotions were derived from previous literature and adapted from Pappas et al. (2016) to match the aim of our study by identifying the importance of these items in personalized advertisements on Facebook. The items measured composite reliability and Cronbach's alpha values above 0.80, indicating highly satisfactory measures (Tyrväinen, Karjaluoto & Saarijärvi, 2020). The fourth item, for price, was operationalized and pre-tested through qualitative interviews to ensure its relevance and suitability in this study. This is elaborated in detail in section 3.4.2.

| Factor                 | Items  | Source   |
|------------------------|--|--|
| Advertising attributes | A personalized advertisement on Facebook can provide me with information that is tailored to my preferences        | adapted from Tyrväinen, Karjaluoto & Saarijärvi (2020) |
|                        | A personalized advertisement on Facebook can provide me with information that is tailored to my personal interests | adapted from Tyrväinen, Karjaluoto & Saarijärvi (2020) |
|                        | Personalized advertisements on Facebook should provide me with tailored deals that I might like                    | adapted from Tyrväinen, Karjaluoto & Saarijärvi (2020) |

*Table 4: Advertising Attributes Items*

### *Intention to Act*

Finally, items for our dependent variable (DV), intention to act, were extracted and adapted from Weise and Akareem (2020) and Duffett (2015). These statements were particularly included to uncover the degree to which personalized advertisements on Facebook could effectively lead to, for instance, purchase intentions, but also intentions to become a fan or follow a brand on Facebook, visit the advertiser's website, or even plan to make a purchase. For the first items, "Become a fan (or a follower) of the company/brand", "Visit the company/brand's website" and "Purchase the advertised product/service" all measured a construct reliability above 0.80 (Weise & Akareem, 2020). The fourth item, "Plan to purchase the products that are advertised on Facebook" also measured a Cronbach's alpha above 0.80 (Duffet, 2015). All four items, therefore, measured acceptable levels of reliability.

| Factor           | Items   | Source                              |
|------------------|---|-------------------------------------|
| Intention to act | Become a fan (or follow) of the company/brand                 | adapted from Weise & Akareem (2020) |
|                  | Visit the company/brand's website                             | adapted from Weise & Akareem (2020) |
|                  | Purchase the advertised product/service                       | adapted from Weise & Akareem (2020) |
|                  | Plan to purchase the products that are advertised on Facebook | adapted from Duffet (2015)          |

*Table 5: Intention to Act Items*

### 3.4.2. Operationalization of Personalized Marketing Factors

When conducting our literature review, we found that consumers' past experience and the advertising attribute 'price' were important factors that influence consumers' intention to act. It was, therefore, pivotal to include these in our survey. However, relevant and previously tested items were not found in past literature and it was, therefore, vital to operationalize these factors into measurable items. These operationalized constructs have not been tested before in other studies. Hence, we conducted a small, qualitative pre-test with five members of our target group to ensure that items were relevant and suitable for our research. After verifying their relevance and appropriateness, we have included them as survey items in our empirical research. Below, we present findings from previous literature that have helped us construct the survey items.

#### *Past Experience*

When scrutinizing previous literature, it was evident that consumers' past experience with a company and its products/services is vital, particularly in the way such experiences are likely to influence their response to online advertisements. As exhibited in the literature review, past experiences can be defined as "the customer's interpretation of the meanings embedded [...] in the qualities and characteristics of the offering, resulting from the perception emerging from any sort of interaction" (Da Motta Filho, 2017, p.17). Unraveling such an abstract concept as 'experience' in the scope of PM was difficult. However, several researchers argued that consumers' experience is both generated from and evaluated through a previous direct and indirect interaction with a company or a brand (Da Motta Filho, 2017; Klaus & Maklan, 2013; Makland & Klaus, 2011; Tyrväinen, Karjaluoto & Saarijärvi, 2020).

Similarly, many researchers argue that positive product and service experiences are also pivotal in how consumers evaluate their past experiences (Da Motta Filho, 2017; Klaus & Maklan, 2013; Makland & Klaus, 2011; Pappas, 2018; Tyrväinen, Karjaluo & Saarijärvi, 2020), while Maklan and Klaus (2011) argues that consumers' perceived value and the extent to which this aligns with their own values is what influences how consumers generally evaluate their experiences with a company or brand. Therefore, past experience has been conceptualized as indirect interaction, positive service experience, positive product experience, and perceived value.

### *Advertising Attributes*

Since we were unable to find a suitable item to test the advertising attribute ‘price’, we opted to operationalize the concept instead. According to several authors, such as Chen, Hsu, and Lin (2010), Nguyen, Emberger-Klein, and Menrad (2019), Pennanen, Tiainen, and Luomala (2007), and Tamimi and Sebastianelli (2015), price is a vital advertising attribute and could, therefore, effectively increase sales. Since a number of scholars argued for the importance of ‘price’, it was vital to test this advertising attribute in our survey.

| Factor                            | Items  | Source   |
|-----------------------------------|--|--|
| Past experience                   | I am more likely to appreciate a personalized advertisement on Facebook if I have previously heard/seen/read positive things about the advertiser  | Da Motta Filho (2017), Klaus & Maklan (2013), Makland & Klaus (2011) & Tyrväinen, Karjaluo & Saarijärvi (2020)                     |
|                                   | I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience with the advertisers' products/services   | Da Motta Filho (2017), Klaus & Maklan (2013), Makland & Klaus (2011) & Tyrväinen, Karjaluo & Saarijärvi (2020)                     |
|                                   | I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience communicating with the advertiser (e.g. customer service, social media account) | Da Motta Filho (2017), Klaus & Maklan (2013), Makland & Klaus (2011) & Tyrväinen, Karjaluo & Saarijärvi (2020)                     |
|                                   | I am more likely to appreciate a personalized advertisement on Facebook if the advertisers' values correspond with my own values   | Makland & Klaus (2011)   |
| Advertising attributes<br>(price) | Personalized advertisements on Facebook should provide me with clearly communicated prices   | Chen, Hsu & Lin (2010), Nguyen, Emberger-Klein & Menrad (2019), Pennanen, Tiainen & Luomala (2007) & Tamimi & Sebastianelli (2015) |

*Table 6: Items Operationalized for the Official Survey*

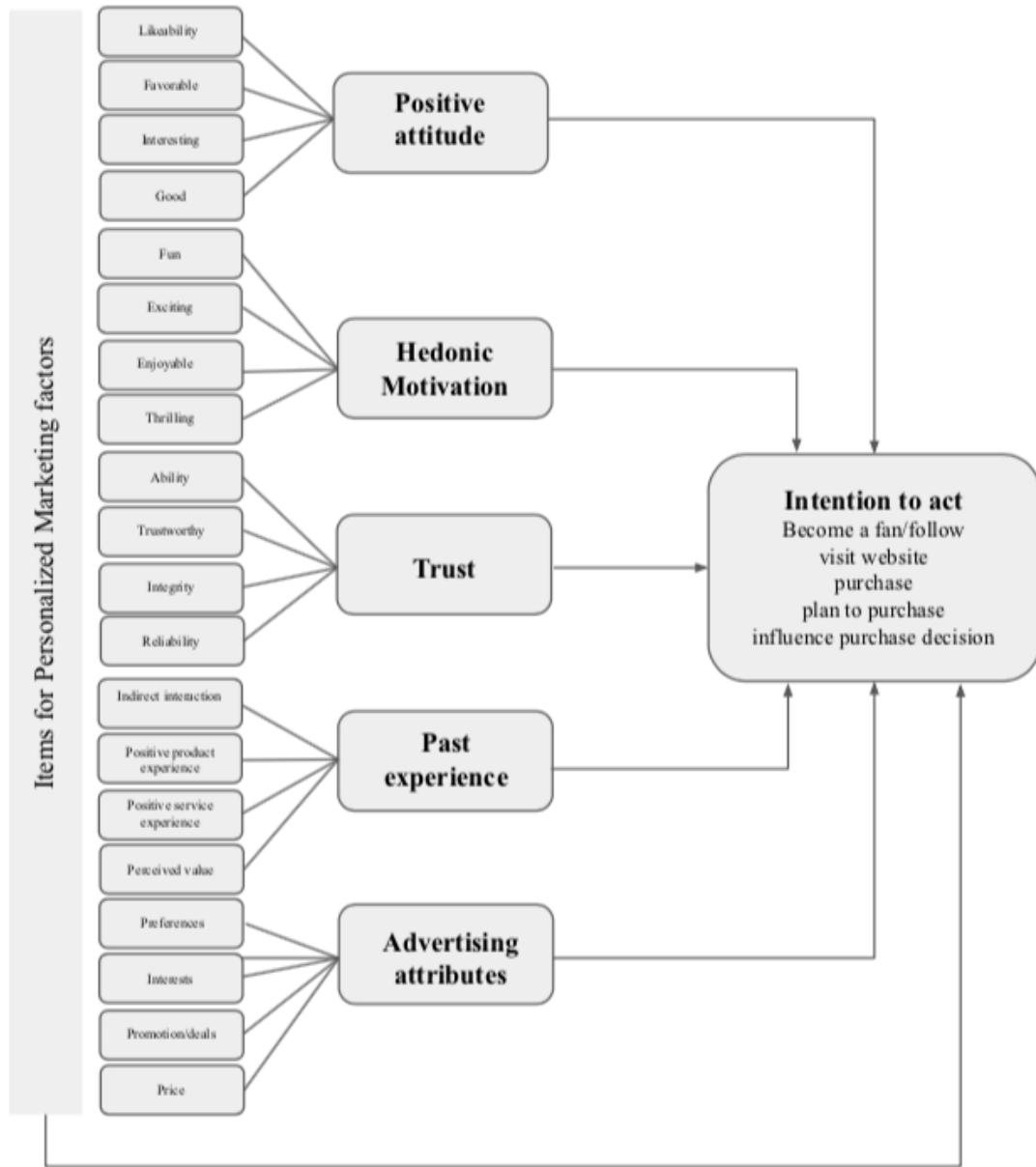


Figure 4: Theoretical Framework

### 3.4.2. Labeling of correlation coefficients

Our proposed hypotheses are structured to answer if the found PM factors strongly correlate with millennials' intention to act upon a personalized advertisement on Facebook. Therefore, it was necessary to identify a method to label the correlation coefficients based on their strength. This also enabled us to subsequently rank the factors based on the strength of the correlation.

Several researchers argue that correlation coefficients, in absolute value, can be categorized in four different levels or strengths: low or weak correlation, moderate correlation, high or strong correlation and very high or strong correlation.

There are, however, different ways of defining these levels of correlation. Marañon (2021b) defines a correlation with an absolute value between 0.20 and 0.40 as low or weak correlation, 0.40 to 0.70 represents moderate correlation, 0.70 to 0.90 is high or strong correlation, while values above 0.90 are defined as very high or strong correlations. Others argue that a low or weak correlation are instead absolute values equal to or below 0.35, moderate correlation is between 0.36 and 0.67, high or strong correlation is between 0.67 and 0.90, and very high or strong correlation are values above 0.90 (Mason, Lind & Marchal, 1983; Weber & Lamb, 1970 cited in Taylor, 1990).

### 3.5. Reliability and validity

Reliability and validity are key factors for quality when conducting research (Burns & Burns, 2008). Reliability is, as explained by Bell, Bryman, and Hartley (2019), the repeatability of the study through the three meanings: stability, internal reliability, and inter-rater reliability. Stability refers to the strength of a study if it is repeated, meaning that a study is stable if the same, or almost the same, results are given when the study is repeated (Bell, Bryman & Hartley, 2019). The research aims to provide clear blueprints, through our methodology, of how the study was conducted, to ensure that if the research is recreated, similar results can be achieved. This is done through a clear presentation of how our factors are operationalized, providing insights as to how the sample will represent the target population, as well as a detailed explanation of our data collection process. The goal is that this sort of transparency enables researchers to successfully recreate or build upon this study.

The second measure of reliability, internal reliability, can be calculated through Cronbach's Alpha (Bell, Bryman & Hartley, 2019). Cronbach's Alpha is defined by Bell, Bryman & Hartley (2019) as a test for internal reliability for multiple-item measures. For our paper, Cronbach's Alpha can be used to test coherence and if the concepts relate to the same factor (Bell, Bryman & Hartley, 2019). When conducting a test with Cronbach's Alpha, an alpha score of 0.8 is deemed as highly satisfactory and 0.7 is acceptable (Bell, Bryman & Hartley, 2019; Burns & Burns, 2008). In our study, all items measured above the levels of acceptability, indicating internal reliability.

The last measure of reliability, inter-rater reliability, refers to the subjective judgment that could influence the empirical observations (Bell, Bryman & Hartley, 2019). In other words, the more subjective influence on the survey design and the analysis of its results, the weaker the inter-rater reliability. For our survey, all questions related to the PM factors and consumers' intention to act were close ended, minimizing the risk of subjective judgment as there was no need to code the answers. However, the statements/survey questions were operationalized through our subjective view on the concepts found in previous literature. To minimize our own subjective judgment, the aim was to ensure the statements closely resembled those that have been tested for internal reliability in previous studies.

Measurement validity is defined by how well the concept is actually measured through the tested concept (Bell, Bryman & Hartley, 2019). As we are conducting a cross-sectional study to investigate if there are variations in our findings between different demographics, internal validity, and external validity are the most notable validity aspects to consider (Bell, Bryman & Hartley, 2019). Internal validity refers to how well a conclusion can be said to indicate an apparent causal relationship between two or more variables (Bell, Bryman & Hartley, 2019). In other words, how confident we can be that an independent variable affects the dependent variable. In cross-sectional studies, this is typically weak as they produce associations rather than findings of causal inference (Bell, Bryman & Hartley, 2019). To test for internal validity, we used statistical tools such as Pearson's correlation and multiple linear regression. This allowed us to measure the relationship between the independent and dependent variables. Burn and Burns (2008) also emphasize the importance of large sample sizes as they lead to a higher chance of finding relationships between variables. They further state that small samples limit the statistical power and may cause type II errors. Type II errors mean failing to identify an existing association (Burns & Burns, 2008). Therefore, we aimed to minimize this risk by collecting an appropriate sample size of above 300 participants.

Finally, external validity refers to how strongly a study can be generalized beyond our research question and is typically concerned with the sampling process (Bell, Bryman & Hartley, 2019). To ensure strong external validity, randomly selected samples are, according to Bell, Bryman, and Hartley (2019), preferred. Our study uses non-random methods such as convenience sampling and snowball sampling rather than random methods due to the unavailability of a sampling frame. It was, therefore, necessary to obtain a sample that closely resembles the target population, strengthening our external validity. This was done by randomly selecting equal amounts of participants based on their age and gender, which had been used for the empirical study. We understand that a non-random method also limits us from generalizing the results and therefore interferes with our external validity (Burns & Burns, 2008).

### 3.6. Data and Analytical Methods

As described before, in order to analyze our empirical data and prevent as much personal bias as possible, the collected data was analyzed through the statistical program SPSS. However, before analyzing the gathered information, it was necessary to first screen the data and discard any irrelevant or fraudulent answers. A detailed explanation of this process is provided in section 4.1.

#### 3.6.1. Descriptive Statistics

After discarding irrelevant and fraudulent answers and arriving at an acceptable number of respondents that could be computed for further analysis, we proceeded with a descriptive analysis of participants' demographic information, including their age, gender, education, and nationality. In addition to participants' demographic information, it was also fascinating to measure the extent to which each participant uses Facebook, including how long they have been on the platform and approximately how many hours they spent on Facebook each day.

The descriptive statistics made it possible for additional statistical analysis to take place, allowing us to determine whether or not there is significant difference in the intended behavior of participants of different ages and gender.

### 3.6.2. Cronbach's Alpha

Following the presentation and discussion of the descriptive statistics, we proceeded by testing the PM factors through a multiple-item measure. Cronbach's alpha enabled us to gain insights into the degree to which the items were suitable and allowed for an evaluation of their internal reliability and consistency. Cronbach's alpha is defined by Bell, Bryman, and Hartley (2019) as a test for internal reliability for multiple-item measures. For example, Cronbach's alpha can be used to test coherence and if the concepts relate to the same factor (Bell, Bryman & Hartley, 2019). As previously presented, when conducting a test with Cronbach's alpha, an alpha score of 0.8 is deemed as highly satisfactory and 0.7 is acceptable (Bell, Bryman & Hartley, 2019; Burns & Burns, 2008). Therefore, considering the importance of such an analytical tool, it was necessary for us to test all items of both independent variables, namely, positive attitude, hedonic motivation, trust, past experience, advertising attributes, and the dependent variable, intention to act, to determine whether or not we measured exactly what was intended to be measured.

### 3.6.3. Correlation

Burns and Burns (2008, p. 349) describe correlation as “a measure of the degree of correspondence between variables”, in other words, the relationship between two variables. Due to the formulation of our proposed hypotheses, aiming to measure the correlation between the found PM factors and consumers’ intention to act, this was a suitable measure of our empirical data. Correlation measurements made it possible for us to analyze both the strength and direction of the found relationships (Burns & Burns, 2008). The correlation was measured by first conducting a survey using a 7-point Likert scale, giving us ordinal data. The results for each of the items were then calculated as a mean for each of the factors, giving us a multiple-item measure. The calculated means enabled us to obtain index values, and, therefore, we used Pearson’s correlation and coefficients of determination,  $R^2$ , to measure the strength of the correlation between the PM factors and millennials’ intention to act. The coefficient of determination,  $R$ , also allowed us to make a more precise calculation of the strength of the relationships between variables as it measures the percentage of the total variance in the dependent variable due to the variance of our independent variables (Burns & Burns, 2008).

The correlation and coefficient of determination has been calculated for all participants, as well as for each gender, female and male, and our three age ranges: 24 to 29, 30 to 35, and 36 to 40. These demographics were chosen as we obtained sufficient respondents to make assumptions about the variations.

### 3.6.4. Multiple Linear Regression

Multiple linear regression is explained by Burns and Burns (2008, p. 388) as “a technique for estimating the value on the criterion variable from values on two or more other variables”. For our study, this test allowed us to examine how all factors influence millennials’ intention to act. In other words, we were able to quantify each of the factors’, or independent variables’, impact on the dependent variable, millennials’ intention to act. This measure made it possible for us to “determine the statistical significance of both the overall multiple correlation coefficient, R, as well as for each beta individually” (Burns & Burns, 2008, p. 389). Furthermore, multiple linear regression also enabled us to measure if there was a significant multiple linear regression through ANOVA, the strength of the relationships between the independent variables and the dependent variable through adjusted R<sup>2</sup>, as well as determine which independent variable was the strongest or weakest predictor of the dependent variable. It is also of importance when conducting a standard multiple linear regression analysis to take into account certain assumptions. Burns and Burns (2008) state that these are, linearity of relationship, homoscedasticity, normality of error distribution, and multicollinearity. In the results section, these assumptions have been tested and met, enabling us to conduct a multiple linear regression analysis.

## 4. Results

In the previous section, we familiarized the reader with the various data and analytical tools that were used in this thesis to both collect and analyze data. This section, however, is meant to discuss the statistical results from our empirical study. Therefore, we start by presenting and discussing the descriptive statistics of participants' demographic information, which includes an overview of their age, gender, nationality, and educational background, followed by their Facebook usage status. Thereafter, the results from the various performed tests, including the Cronbach's alpha, Pearson's correlation, and multiple linear regression are provided and discussed in an effort to help us find support to accept and/or reject our hypotheses and, consequently, answer our main research question.

### 4.1. Descriptive Analysis

The goal of our empirical research was to obtain 300 to 500 participants between the ages 24 and 40, who use Facebook. After sharing our survey on multiple platforms, as described in section 3.3.3., we obtained a total of 1007 respondents, from which 152 were considered invalid either because they were not part of our target group, not Facebook users, considered fraudulent or because they submitted answers to our survey more than once. Several criteria were taken into account to categorize an answer as fraudulent. Firstly, multiple entries of the same respondent were deemed as invalid, as in some instances, respondents' demographic answers differed between entries. Secondly, respondents who provided the same answer for each question indicated that there had been no real thought process. Thirdly, in some instances, the open-ended questions were not answered 'correctly', for example, when asked to specify nationality or provide an email address, respondents answered with the link to the survey. This could mean that the respondents were not properly reading the questions or were a bot.

Thereafter, in an effort to obtain a proportionate number of participants for each age category and gender to be able to make distinctions between the variations of the population, we narrowed down the list further. For instance, when summarizing the results, only 33 participants identified as non-binary, other, or preferred not to say. As these were insufficient to draw any conclusions, we discarded their answers. To further proportionate the sample, we randomly selected participants from our sample. As the category males aged 36-40 only contained 55 valid respondents, we randomly selected 55 participants from each age and gender category to ensure that we included the largest possible sample as well as to obtain an equal distribution. Consequently, we randomly selected 55 male and 55 female participants for each age category, 24 to 29, 30 to 35, and 36 to 40 (2 genders x 55 participants =  $110 \times 3 = 330$ ), resulting in the final number of 330 participants respectively.

|                                | Frequency  | Percent (%)  | Cumulative percent (%) |
|--------------------------------|------------|--------------|------------------------|
| <b>Gender</b>                  |            |              |                        |
| Female                         | 165        | 50.0         | 50.0                   |
| Male                           | 165        | 50.0         | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |
| <b>Age</b>                     |            |              |                        |
| 25 - 29                        | 110        | 33.3         | 33.3                   |
| 30 - 35                        | 110        | 33.3         | 66.7                   |
| 36 - 40                        | 110        | 33.3         | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |
| <b>Education</b>               |            |              |                        |
| High school / Secondary school | 39         | 11.8         | 11.8                   |
| Bachelor's degree              | 162        | 41.1         | 60.9                   |
| Master's degree                | 124        | 37.6         | 98.5                   |
| Other                          | 5          | 1.5          | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |
| <b>Facebook usage length</b>   |            |              |                        |
| Less than 1 year               | 8          | 2.4          | 2.4                    |
| Between 1 and 2 years          | 80         | 24.2         | 26.6                   |
| Between 3 and 4 years          | 120        | 36.4         | 63.0                   |
| Between 5 and 6 years          | 38         | 11.5         | 74.5                   |
| More than 6 years              | 84         | 25.5         | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |
| <b>Facebook usage per week</b> |            |              |                        |
| 2 hours or less                | 83         | 25.2         | 25.2                   |
| 3 to 5 hours                   | 166        | 50.3         | 75.5                   |
| 6 hours or more                | 81         | 24.5         | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |
| <b>Most used device</b>        |            |              |                        |
| Computer                       | 70         | 21.2         | 21.2                   |
| Smart tablet                   | 93         | 28.2         | 49.4                   |
| Smartphone                     | 165        | 50.0         | 99.4                   |
| Other                          | 2          | 0.6          | 100.0                  |
| <b>Total</b>                   | <b>330</b> | <b>100.0</b> |                        |

Table 7: Sample Descriptives

As exhibited in Table 7, in terms of the participants' educational background, 11.8 percent indicated that they have either a high school or secondary school diploma, 41.1 percent hold a bachelor's degree, 37.6 percent hold a master's degree, and 1.5 percent of them answered 'other'. This shows that most of the participants either hold a bachelor's or a master's degree.

When analyzing the respondents Facebook usage, 36.4 percent stated that they have been using the social platform between 3 and 4 years, 25.5 percent for more than 6 years, 24.2 percent between 1 and 2 years, 11.5 percent between 5 and 6 years, and, lastly, 2.4 percent for less than a year. Furthermore, 50.3 percent of respondents also answered that they used Facebook for roughly 3 to 5 hours per week, while 25.2 percent answered 2 hours or less, and 24.5 percent 6 hours or more. Most respondents, therefore, have had a Facebook account for 3 to 4 years, and use the platform for roughly 3 to 5 hours per week.

Finally, when asked about which device they use most to access Facebook, 50 percent of the participants responded that they mostly use their smartphone, 28.2 percent said they use a smart tablet, 21.2 percent mostly use their computer, and only 0.6 percent answered ‘other’. Thus, the results show that most of the respondents use a smartphone to access Facebook.

## 4.2. Cronbach's Alpha

To compute the internal reliability of the multi-item measures, we conducted a Cronbach's alpha test to examine whether the items are measuring the same variable. As presented in section 3.5.1., an acceptable alpha score is above 0.7, while scores above 0.8 are highly satisfactory. Our study shows, see Table 8, that all scores measured above 0.8 and, therefore, the items are deemed as reliable in measuring each of the independent variables and the dependent variable. The Cronbach's alpha for each of the items, if they were deleted, was also calculated to ensure that there were not any irrelevant items, see Appendix B. Each of the alpha scores measured above 0.7, meaning that none of the items had to be discarded.

| Multi-item measures    | Items | $\alpha$ | Mean  | Min* | Max* | SD    |
|------------------------|-------|----------|-------|------|------|-------|
| Positive attitude      | 4     | 0.904    | 4.606 | 1    | 7    | 1.441 |
| Hedonic motivation     | 4     | 0.926    | 4.413 | 1    | 7    | 1.656 |
| Trust                  | 4     | 0.912    | 4.514 | 1    | 7    | 1.602 |
| Past experience        | 4     | 0.893    | 5.036 | 1    | 7    | 1.352 |
| Advertising attributes | 4     | 0.858    | 4.930 | 1    | 7    | 1.313 |
| Intention to act       | 4     | 0.908    | 4.642 | 1    | 7    | 1.477 |

Notes: n = 330; \*7-point Likert scale: 1 = strongly disagree to 7 = strongly agree; SD = standard deviation

*Table 8: Cronbach's Alpha and Mean Values*

## 4.3. Correlation

For this given study, measuring the strength of the relationship between the independent variables (IV) and the dependent variable (DV) was the primary aim. A correlation study, as described previously, is therefore suitable for helping us answer our research questions. Hence, with the previously identified and operationalized survey items, and through the application of the TPB, we have been able to measure the strength of the correlation between the PM factors and millennials' intention to act upon personalized advertisements on Facebook. As described in the methodology section, a correlation test, according to Burns and Burns (2008), makes it possible to examine the extent to which the IV and DV correlate with each other. Below, we present the hypotheses that this section aims to test:

**H1:** There is a strong correlation between millennials' positive attitude and their intention to act upon a personalized advertisement on Facebook

**H2:** There is a strong correlation between hedonic motivation and millennials' intention to act upon a personalized advertisement on Facebook

**H3:** There is a strong correlation between trust and millennials' intention to act upon a personalized advertisement on Facebook

**H4:** There is a strong correlation between past experiences and millennials' intention to act upon a personalized advertisement on Facebook

**H5:** There is a strong correlation between the advertising attributes and millennials' intention to act upon a personalized advertisement on Facebook

**H6:** There is a multiple linear relationship between all PM factors and millennials' intention to act upon a personalized advertisement on Facebook

#### 4.3.1. All Participants' Correlation

| Factors                | Pearson Correlation | Spearman's rho | R <sup>2</sup> | Sig. (2-tailed)* |
|------------------------|---------------------|----------------|----------------|------------------|
| Positive attitude      | 0.830               | 0.840          | 0.689          | 0.000            |
| Hedonic motivation     | 0.841               | 0.859          | 0.707          | 0.000            |
| Trust                  | 0.843               | 0.866          | 0.711          | 0.000            |
| Past experience        | 0.712               | 0.731          | 0.507          | 0.000            |
| Advertising attributes | 0.745               | 0.777          | 0.555          | 0.000            |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 9: Correlation Values for All Participants*

As presented in section 3.4.2., for a correlation to be regarded as strong, the correlation needs to measure an absolute value between 0.70 and 0.90 (Marañon, 2021b), or as argued by Mason, Lind, and Marchal (1983) as well as Weber and Lamb (1970, cited in Taylor, 1990) 0.67 and 0.90. The empirical study has shown, as exhibited in Table 9, through both Pearson's correlation (r) and Spearman's rho, that there is a strong correlation between all PM factors and millennials' intention to act upon personalized advertisements on Facebook. Furthermore, all factors are also shown to have statistically significant correlations as p < 0.05. We can, therefore, argue that hypotheses H1 to H5 can all be accepted when analyzing the results from the perspective of all our participants.

Taking into account all of the PM factors, the IVs, in Table 9, the following is evident; trust is the factor with the strongest correlation with millennials' intention to act (r = 0.843). Trust and intention to act's R<sup>2</sup>, 0.711, indicates that 71.1 percent of the total variance in millennials' intention to act is explained by the variance in this IV's mean. Thereafter, hedonic motivation and millennial's intention to act correlation was the strongest with a correlation of 0.841 and the R<sup>2</sup> was 0.707, followed by positive attitude and millennial's intention to act (r = 0.830; R<sup>2</sup> = 0.689), advertising attributes and millennial's intention to act (r = 0.745; R<sup>2</sup> = 0.555), and lastly, past experience and millennial's intention to act (r = 0.712; R<sup>2</sup> = 0.507). Table 10 shows the ranking of the PM factors based on the responses of all participants.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Trust                  | 0.843                      | 0.711                | 1              |
| Hedonic motivation     | 0.841                      | 0.707                | 2              |
| Positive attitude      | 0.830                      | 0.689                | 3              |
| Advertising attributes | 0.745                      | 0.555                | 4              |
| Past experience        | 0.712                      | 0.507                | 5              |

*Table 10: Ranking of Factors for All Participants*

#### 4.3.2. Female Correlations

##### Females

| <b>Factors</b>         | <b>Pearson Correlation</b> | <b>Spearman's rho</b> | <b>R<sup>2</sup></b> | <b>Sig. (2-tailed)*</b> |
|------------------------|----------------------------|-----------------------|----------------------|-------------------------|
| Positive attitude      | 0.816                      | 0.832                 | 0.666                | 0.000                   |
| Hedonic motivation     | 0.838                      | 0.855                 | 0.702                | 0.000                   |
| Trust                  | 0.835                      | 0.862                 | 0.697                | 0.000                   |
| Past experience        | 0.677                      | 0.671                 | 0.458                | 0.000                   |
| Advertising attributes | 0.728                      | 0.765                 | 0.530                | 0.000                   |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 11: Correlation Values for Female Participants*

Taking into account the respective genders of the participants, it was also of interest to examine the strength of each PM factor among both male and female respondents. Starting with our female respondents, it was evident that each PM factor strongly correlated with their intention to act upon personalized advertisements on Facebook, if we take into account the arguments from Mason, Lind, and Marchal (1983) as well as Weber and Lamb (1970 cited in Taylor, 1990), meaning that H1 to H5 are accepted. However, if using the arguments of Marañon (2021b), one may also argue that the correlation between past experience and females' intention to act is only moderate, which would mean that we reject H4. This is evident through both Pearson's correlation and Spearman's rho. Additionally, similarly to the results from all participants, all factors have statistically significant correlations as p < 0.05.

For female participants, see Table 11, hedonic motivation had the strongest correlation with their intention to act, with a correlation of 0.838. Furthermore, hedonic motivation and intention to act's R<sup>2</sup>, 0.702, states that 70.2 percent of the total variance in female millennials' intention to act is explained by hedonic motivation's mean. Trust and intention to act present the second strongest correlation with a correlation of 0.835 and a R of 0.697, followed by positive attitude and intention to act (r = 0.816; R = 0.666), advertising attributes and intention to act (r = 0.728; R = 0.530) and lastly, past experience and intention to act (r = 0.677; R = 0.458).

For female participants, H4, regarding past experience correlation with intention to act, may be rejected if using the arguments of Marañon (2021b). Below, in Table 12, we have ranked each of the PM factors based on their correlation with females' intention to act upon a personalized advertisement on Facebook.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Hedonic motivation     | 0.838                      | 0.702                | 1              |
| Trust                  | 0.835                      | 0.697                | 2              |
| Positive attitude      | 0.816                      | 0.666                | 3              |
| Advertising attributes | 0.728                      | 0.530                | 4              |
| Past experience        | 0.677                      | 0.458                | 5              |

*Table 12: Ranking of Factors for Female Participants*

#### 4.3.3. Male Correlations

| <b>Males</b>           |                            |                       |                      |                         |  |
|------------------------|----------------------------|-----------------------|----------------------|-------------------------|--|
| <b>Factors</b>         | <b>Pearson Correlation</b> | <b>Spearman's rho</b> | <b>R<sup>2</sup></b> | <b>Sig. (2-tailed)*</b> |  |
| Positive attitude      | 0.844                      | 0.847                 | 0.712                | 0.000                   |  |
| Hedonic motivation     | 0.844                      | 0.855                 | 0.712                | 0.000                   |  |
| Trust                  | 0.854                      | 0.869                 | 0.729                | 0.000                   |  |
| Past experience        | 0.750                      | 0.781                 | 0.563                | 0.000                   |  |
| Advertising attributes | 0.763                      | 0.792                 | 0.582                | 0.000                   |  |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 13: Correlation Values for Female Participants*

When looking at the results of our male participants, following the arguments from both Mason, Lind, and Marchal (1983) as well as Weber and Lamb (1970, cited in Taylor, 1990) and Marañon (2021b), we could identify that the PM factors all strongly correlate with males' intention to act upon personalized advertisements on Facebook. This is evident in both Pearson's correlation and Spearman's rho tests, as exhibited in Table 13. In this table, we can also see that all factors have statistically significant correlations as p < 0.05.

For male participants, trust was the factor with the strongest correlation as r = 0.854. In addition, it is also evident that trust and intention to act's R<sup>2</sup>, 0.729, implies that 72.9 percent of the total variance in male millennials' intention to act is explained by trust. Thereafter, we can see that both positive attitude and hedonic motivation present the second strongest correlation with intention to act, with a correlation of 0.844 and a R<sup>2</sup> of 0.712, followed by advertising attributes (r = 0.763; R<sup>2</sup> = 0.582) and past experience (r = 0.750; R<sup>2</sup> = 0.563). Thus, for male participants, the correlation between the PM factors and their intention to act are all strong, meaning that hypotheses H1 to H5 are all accepted for this gender group.

Table 14 summarizes the ranking of each of the PM factors based on their correlation with males' intention to act upon a personalized advertisement on Facebook.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Trust                  | 0.854                      | 0.729                | 1              |
| Positive attitude      | 0.844                      | 0.712                | 2              |
| Hedonic motivation     | 0.844                      | 0.712                | 2              |
| Advertising attributes | 0.763                      | 0.582                | 3              |
| Past experience        | 0.750                      | 0.563                | 4              |

*Table 14: Ranking of Factors for Male Participants*

#### 4.3.4. 24 to 29 Year Old's Correlations

##### **Age: 24-29**

| <b>Factors</b>         | <b>Pearson Correlation</b> | <b>Spearman's rho</b> | <b>R<sup>2</sup></b> | <b>Sig. (2-tailed)*</b> |
|------------------------|----------------------------|-----------------------|----------------------|-------------------------|
| Positive attitude      | 0.765                      | 0.752                 | 0.585                | 0.000                   |
| Hedonic motivation     | 0.776                      | 0.753                 | 0.602                | 0.000                   |
| Trust                  | 0.787                      | 0.762                 | 0.619                | 0.000                   |
| Past experience        | 0.586                      | 0.580                 | 0.343                | 0.000                   |
| Advertising attributes | 0.626                      | 0.615                 | 0.392                | 0.000                   |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 15: Correlation Values for Participants aged 24 to 29*

It was also of interest to analyze the results of the study based on the age of our participants. We began this analysis by looking at the correlation of the PM factors and 24-to-29-year old's intention to act upon personalized advertisements on Facebook. The results indicate that positive attitude, hedonic motivation and trust all strongly correlate with 24-to-29-year old's intention to act, while past experience and advertising attributes only moderately correlate with intention to act. For this age range, all factors have statistically significant correlation, as p < 0.05.

Within this age range, trust had the strongest correlation with their intention to act, measuring a correlation of 0.787. Subsequently, 61.9 percent ( $R = 0.619$ ) of the total variance in millennials' intention to act is explained by trust's mean. Furthermore, hedonic motivation and intention to act have the second strongest correlation ( $r = 0.776$ ;  $R = 0.602$ ), followed by positive attitude and intention to act ( $r = 0.765$ ;  $R = 0.585$ ), advertising attributes and intention to act ( $r = 0.626$ ;  $R = 0.392$ ) and past experience and intention to act ( $r = 0.586$ ;  $R = 0.343$ ). For participants aged 24 to 29, H1 to H3 may be accepted, while H4 and H5 are instead rejected as these factors and 24-to-29-year olds' intentions to act are only moderately correlated. Table 16 shows the ranking of the PM factors based on the responses of participants between 24 and 29.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Trust                  | 0.787                      | 0.619                | 1              |
| Hedonic motivation     | 0.776                      | 0.602                | 2              |
| Positive attitude      | 0.765                      | 0.585                | 3              |
| Advertising attributes | 0.626                      | 0.392                | 4              |
| Past experience        | 0.586                      | 0.343                | 5              |

*Table 16: Ranking of Factors for Participants aged 24 to 29*

#### 4.3.5. 30 to 35 Year Old's Correlations

##### Age: 30-35

| <b>Factors</b>         | <b>Pearson Correlation</b> | <b>Spearman's rho</b> | <b>R<sup>2</sup></b> | <b>Sig. (2-tailed)*</b> |
|------------------------|----------------------------|-----------------------|----------------------|-------------------------|
| Positive attitude      | 0.833                      | 0.853                 | 0.694                | 0.000                   |
| Hedonic motivation     | 0.797                      | 0.807                 | 0.635                | 0.000                   |
| Trust                  | 0.825                      | 0.849                 | 0.681                | 0.000                   |
| Past experience        | 0.753                      | 0.727                 | 0.567                | 0.000                   |
| Advertising attributes | 0.771                      | 0.788                 | 0.594                | 0.000                   |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 17: Correlation Values for Participants aged 30 to 35*

When looking at the second age group, millennials between 30 and 35, it is evident that all factors have statistically significant correlations, as p < 0.05. Following the arguments from Mason, Lind, and Marchal (1983) as well as Weber and Lamb (1970, cited in Taylor, 1990) and Marañon (2021b), all the PM factors also strongly correlate with millennials between 30 to 35's intention to act. The results for participants in this age group suggest that positive attitude has the strongest influence, with a correlation of 0.833 and R<sup>2</sup> is 0.694, followed by trust (r = 0.825; R<sup>2</sup> = 0.681), hedonic motivation (r = 0.797; R<sup>2</sup> = 0.635), advertising attributes (r = 0.771; R<sup>2</sup> = 0.594), and past experience (r = 0.753; R<sup>2</sup> = 0.567). Thus, as mentioned before, for this age group, the correlation between the PM factors and their intention to act are all strong, implying that hypotheses H1 to H5 are accepted. Table 18 summarizes the ranking of each of the PM factors based on their correlation with 30-to-35-year old's intention to act upon a personalized advertisement on Facebook.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Positive attitude      | 0.833                      | 0.694                | 1              |
| Trust                  | 0.825                      | 0.681                | 2              |
| Hedonic motivation     | 0.797                      | 0.635                | 3              |
| Advertising attributes | 0.771                      | 0.594                | 4              |
| Past experience        | 0.753                      | 0.567                | 5              |

*Table 18: Ranking of Factors for Participants aged 30 to 35*

#### 4.3.6. 36 to 40 Year Old's Correlations

##### **Age: 36-40**

| <b>Factors</b>         | <b>Pearson Correlation</b> | <b>Spearman's rho</b> | <b>R<sup>2</sup></b> | <b>Sig. (2-tailed)*</b> |
|------------------------|----------------------------|-----------------------|----------------------|-------------------------|
| Positive attitude      | 0.851                      | 0.843                 | 0.724                | 0.000                   |
| Hedonic motivation     | 0.904                      | 0.883                 | 0.817                | 0.000                   |
| Trust                  | 0.868                      | 0.865                 | 0.753                | 0.000                   |
| Past experience        | 0.771                      | 0.833                 | 0.594                | 0.000                   |
| Advertising attributes | 0.827                      | 0.869                 | 0.684                | 0.000                   |

Notes: R<sup>2</sup> is calculated through Pearson Correlation; \*Pearson Correlation is significant at the 0.01 level (2-tailed)

*Table 19: Correlation Values for Participants aged 36 to 40*

For the last age group, millennials aged 36 to 40, all factors strongly correlate with the participants' intention to act upon personalized advertisements on Facebook as r is above 0.70. The factors also all have significantly significant correlations, as p < 0.05. Therefore, for this age group, we can argue that hypotheses H1 to H5 can all be accepted. The factor presenting the strongest correlation with these participants' intention to act was hedonic motivation, as r was 0.904 and R measured 0.817. This indicates that 81.7 percent of the total variance in millennials' intention to act is explained by the variance in hedonic motivation's mean. For millennials aged 36 to 40's intention to act, the second strongest correlation was trust (r = 0.868; R = 0.753), followed by positive attitude (r = 0.851; R = 0.724), advertising attributes (r = 0.827; R = 0.684) and lastly, past experience (r = 0.771; R = 0.594). Finally, Table 20 shows the ranking of the PM factors based on their correlation with 36-to-40-year old's intention to act upon a personalized advertisement on Facebook.

| <b>Factor</b>          | <b>Pearson Correlation</b> | <b>R<sup>2</sup></b> | <b>Ranking</b> |
|------------------------|----------------------------|----------------------|----------------|
| Hedonic motivation     | 0.904                      | 0.817                | 1              |
| Trust                  | 0.868                      | 0.753                | 2              |
| Positive attitude      | 0.851                      | 0.724                | 3              |
| Advertising attributes | 0.827                      | 0.684                | 4              |
| Past experience        | 0.771                      | 0.594                | 5              |

*Table 20: Ranking of Factors for Participants aged 30 to 35*

#### 4.4. Multiple Linear Regression

As discussed in section 3.5.4., a multiple linear regression makes it possible for us to measure the effect of all the factors, or IVs, on the DV, millennials' intention to act. This analytical tool also makes it possible for us to "determine the statistical importance of both the total multiple correlation coefficient, R, and each beta individually" (Burns & Burns, 2008, p. 389).

In addition, a multiple linear regression test enables us to decide if there is a meaningful multiple linear regression (ANOVA), determine the strength of the relationships between the IVs and the DV (adjusted R<sup>2</sup>), and which IV is the strongest or weakest predictor of the DV.

To test for the assumptions necessary when conducting a multiple linear regression analysis, we first performed ocular inspections for linearity of relationship, homoscedasticity and normality of error distribution. The linearity of relationship, see Appendix C, shows signs of positive skewness. This implies that the data consists of a single mode, which is shown by the peak of the curve. Since the data indicates ‘normal’ distribution, we see a symmetrical histogram that appears like a bell. This enables us to use the term for a normal distribution, also known as a ‘bell curve’. Thereafter, we could determine that there is homoscedasticity, see Appendix D, which implies that variability of scores in one or more variables is, to some extent, similar across the values of other variable(s). Due to an even distribution of the points for standardized residuals and predicted values, the scatterplot shows evident signs of homoscedasticity. Furthermore, in Appendix E, we can qualitatively observe that there is evident random distribution of points and normality of error distribution. Consequently, we can say that there is no increase or decrease in pattern. This implies that the variance stays constant across the range of values.

Before conducting a multiple linear regression test, it was also fundamental to check if we had a multicollinearity problem, which could indicate if the IVs are overlapping. There are three ways to check for multicollinearity problems, VIF values greater than 10, condition index values greater than 30 and tolerance indexes less than 0.10. In our case, each of these values were above or below the recommended levels, see Table 21 and Table 22. Therefore, we can argue that we did not have a multicollinearity problem and did not need to make further adjustments before conducting our multiple linear regression analysis.

|                               | Unstandardized Coefficient |            | Standardized Coefficients |       | Collinearity statistics |           |       |
|-------------------------------|----------------------------|------------|---------------------------|-------|-------------------------|-----------|-------|
|                               | B                          | Std. Error | Beta                      | t     | Sig.                    | Tolerance | VIF   |
| (Constant)                    | 0.401                      | 0.156      |                           | 2.568 | 0.011                   |           |       |
| <b>Positive attitude</b>      | 0.234                      | 0.063      | 0.228                     | 3.692 | 0.000                   | 0.179     | 5.594 |
| <b>Hedonic motivation</b>     | 0.219                      | 0.062      | 0.245                     | 3.555 | 0.000                   | 0.144     | 6.961 |
| <b>Trust</b>                  | 0.296                      | 0.059      | 0.321                     | 5.028 | 0.000                   | 0.168     | 5.951 |
| <b>Past experience</b>        | 0.138                      | 0.057      | 0.126                     | 2.414 | 0.016                   | 0.251     | 3.988 |
| <b>Advertising attributes</b> | 0.034                      | 0.066      | 0.030                     | 0.518 | 0.605                   | 0.201     | 4.971 |

Note: Dependent variable: Intention to Act

*Table 21: Regression Coefficients*

| Dimension | Eigenvalue | Condition Index | (Constant) | Att  | Mot  | Tru  | Exp  | Adv  |
|-----------|------------|-----------------|------------|------|------|------|------|------|
| 1         | 5.854      | 1.000           | 0.00       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2         | 0.082      | 8.447           | 0.41       | 0.01 | 0.05 | 0.03 | 0.01 | 0.00 |
| 3         | 0.31       | 13.848          | 0.58       | 0.00 | 0.05 | 0.05 | 0.19 | 0.08 |
| 4         | 0.14       | 20.249          | 0.00       | 0.62 | 0.02 | 0.48 | 0.06 | 0.01 |
| 5         | 0.10       | 23.938          | 0.01       | 0.37 | 0.86 | 0.43 | 0.02 | 0.03 |
| 6         | 0.009      | 25.497          | 0.00       | 0.01 | 0.02 | 0.00 | 0.73 | 0.88 |

Notes: Dependent variable: Intention to Act; Att = Positive attitude; Mot = Hedonic motivation; Tru = Trust; Exp = Past experience; Adv = Advertising attributes

Table 22: Collinearity Diagnostics

Firstly, looking at Table 23 we can conclude that the F statistic,  $F = 227.722$ , and the level of significance,  $\text{sig.} < 0.05$ , indicate that we have a multiple linear regression model, at a significance level of 0.05. Furthermore, Table 24 summarizes both the R (0.778) and the adjusted R (0.775). These values are both high, with the adjusted R indicating that 77.5 percent of the variation of millennials' intention to act can be explained by the five PM factors; positive attitude, hedonic motivation, trust, past experience, and advertising attributes. Thereafter, we can analyze the standardized beta coefficient in Table 21 to rank the factors from strongest to weakest predictor. Trust has the largest standardized beta,  $\beta = 0.321$ , and has a significant level below 0.05, and is, therefore, the strongest predictor of millennials' intention to act. Thereafter, hedonic motivation is the second strongest predictor ( $\beta = 0.245$ ;  $\text{sig.} = 0.000$ ), followed by positive attitude ( $\beta = 0.228$ ;  $\text{sig.} = 0.000$ ) and past experience ( $\beta = 0.126$ ;  $\text{sig.} = 0.016$ ). The weakest predictor is advertising attributes as it has the lowest standardized beta ( $\beta = 0.030$ ), and a significant level above 0.05 ( $\text{sig.} = 0.605$ ). This indicates that we cannot conclude that advertising attributes have a statistically significant association with intention to act.

#### ANOVA

| Model      | Sum of Squares | df  | Mean Square | F       | Sig.  |
|------------|----------------|-----|-------------|---------|-------|
| Regression | 558.900        | 5   | 111.780     | 227.722 | 0.000 |
| Residual   | 159.040        | 324 | 0.491       |         |       |
| Total      | 717.940        | 329 |             |         |       |

Table 23: Multiple Linear Regression - ANOVA

#### Model Summary

| R     | R <sup>2</sup> | Adjusted R Square | Std. Error of the Estimate |
|-------|----------------|-------------------|----------------------------|
| 0.882 | 0.778          | 0.775             | 0.70062                    |

Table 24: Multiple Linear Regression - Model Summary

## 5. Discussion

This study aimed to examine the strength of the correlation between the PM factors; positive attitude, hedonic motivation, trust, past experience, and advertising attributes, and millennials' intention to act upon personalized advertisements on Facebook. In order to achieve this goal, it was important to dissect the extent to which previous research covered the concept of personalization in the past, including each of the classified PM factors in the context of advertising, particularly on social media. After establishing an understanding of previous research on PM, identifying the most relevant and important factors by several scholars, and conducting an empirical study of our own, we were able to find answers to our research questions as well as support for our proposed hypotheses.

As discussed in section 2.1, during recent years, social media has become a prominent part of the marketing strategies for a number of companies, resulting in many marketers now effectively using social media marketing (SMM) to reach individuals of different demographics across the internet. As claimed by Vinereana (2017), social media marketing, is defined as the connection between an organization and its current as well as potential customers, could positively influence customer equity, loyalty, and, ultimately, their purchase intentions. A number of previous studies have argued for the importance of SMM and its positive influence on consumers' intention and behavior (Assaad & Gómez, 2011; Clark & Melancon, 2013; Saravanakumar & SuganthaLakshmi, 2012). In terms of social media platforms, Curran, Graham, and Temple (2011) discuss that Facebook, the leading social media platform in the world, makes targeting of specific groups extremely efficient through personalized advertisements.

As stated by Wirtz, Göttel and Daiser (2017), frequent Facebook users are more likely to accept and engage with personalized advertisements. In addition, millennials, in general, are among the most active users on Facebook (Statista, 2021c). Our results show that 75 percent of our respondents use Facebook for more than three hours per week. More specifically, 50.3 percent use Facebook between three and five hours, and 24.5 percent spend six or more hours per week on the platform. Furthermore, 36.4 percent answered that they have been using Facebook for three to four years, and roughly 73 percent of respondents have been using Facebook for more than three years. This suggests that our respondents are relatively active Facebook users, which may be the reason why they generally responded positively to all items. For instance, as seen in Appendix B, all means of the items measured above '4'. These findings could, however, yield different results if we would have included members from a different generation for our survey or if the respondents would have been less active on Facebook in general.

### 5.1. The Importance of the PM Factors

As mentioned, a number of scholars have argued for the importance of several factors in personalized marketing, namely, positive attitude, hedonic motivation, trust, past experience, and advertising attributes and their influence on consumers' intention to act in the context of personalized advertisements.

Through the application of the Theory of Planned Behavior (TPB), a well-known socio-psychological theory, we are able to gain an understanding of the strength of the correlation between the PM factors and millennials' intention to act, helping us recognize the extent to which these factors could also predict their behavior.

In the subsequent section, we discuss the results of our research and describe the extent to which our empirical data provide answers to our research questions based on the findings of previous literature.

### *Positive Attitude*

As presented in the literature review, consumers' attitude has been studied by several scholars in the past. In fact, consumers' attitudes, when favorable, have been proven to positively influence their perception, intention, and ultimately their behavior (Ajzen, 1991; Cherian & Jacob, 2012). Consumers' attitude, in the context of advertising, has also been discussed in a number of studies, including Krugman, Bauer, and Greyser (1969), who were among the first scholars to examine consumers' attitudes towards advertising. In recent years, however, several studies, including those from Tran (2017) and Pappas (2018), have begun to investigate consumers' attitude towards PM and its subsequent role in determining the effectiveness of personalized advertisements. The relationship between positive or favorable attitudes on consumers' behavioral intentions has also been studied before, which could help predict and explain consumers' behavioral responses (Ajzen, 1991; Tran, 2017). Our empirical study shows that not only is there an evident, strong correlation between millennials' attitudes and their intention to act upon personalized advertisements on Facebook, but, as shown by previous research, that these intentions are likely to result in a specific set of actions. As exhibited in section 4.3.1., overall, consumers' positive attitude is the third strongest PM factor among all our survey participants. For our male participants, however, positive attitude ranked second among all PM factors, while for participants between 24 and 29, as well as 30 and 35, positive attitude measured the strongest correlation with intention to act. These results support and verify the findings of previous studies, suggesting that for personalized advertisements to be effective on Facebook, marketers need to tackle consumers' attitudes towards personalized advertisements on the platform, in order to maximize their marketing efforts. Consumers' attitude, whether positive or negative, is thus likely to affect the way they react to personalized advertisements on Facebook. Our empirical findings also suggest that the more positive an individual's attitude is towards the advertisement source or social platform, the higher their intentions to act upon advertised items, more specifically, the extent to which the consumer likes the advertised items and finds them interesting. This has also been explained before by Ajzen (1991), from the perspective of the TPB, claiming that favorable attitudes could help predict and explain individuals' intentions and behavior in a given situation. Therefore, marketers must tailor their advertisements to influence consumers' attitudes to ensure that they are perceived well among members of their target audience. By effectively influencing consumers' attitudes, marketers could increase advertising effectiveness and, potentially, increase the obtained response from consumers in the form of concrete actions.

### *Hedonic Motivation*

In addition to consumers' attitudes, a number of scholars have also discussed the need to target consumers' motivation in order to influence their intentions and, subsequently, their behavior. For instance, To, Liao, and Lin (2007) discussed the importance of consumers' hedonic motivation and how it could lead to happiness, awakening, and enjoyment. Similarly, other researchers, such as Arnold and Reynolds (2003), discussed how hedonic motivation refers to consumers looking for the next 'great deal'. Hedonic motivation has also been proven to strongly influence customers' satisfaction and loyalty (Vinereana and Opreana, 2014), while Setyani et al. (2019), who studied the effects of consumers' motivation and its influence on their intention to act, showed that hedonic motivation is a strong predictor of consumers' impulsive buying behavior. They concluded that tackling consumers' hedonic motivation through personalized advertisements could result in higher customer satisfaction, loyalty and click-through rates. Our survey results support these findings. As exhibited in Table 10, in section 4.3.1., hedonic motivation ranked as the second strongest factor, due to its correlation with millennials' intention to act upon personalized advertisements on Facebook. If we examine participants' age and gender, we can see that hedonic motivation measured the absolute strongest correlation with intention to act for both female participants as well as all participants between the ages of 36 and 40. These results indicate that it is of absolute importance for marketers to target millennials' motivation in their personalized advertisements on Facebook by, for example, ensuring that their advertisements are fun, exciting, enjoyable, and thrilling for consumers. Consequently, marketers could increase the effectiveness of personalized advertisements by targeting consumers' hedonic motivation and enhancing their credibility by providing tailored, creative and entertaining content (Setyani et al., 2019). As the goal of PM is to identify a need and meet those needs for each consumer (Tang, Liao & Sun, 2013), it is not surprising that tailored and entertaining content, through hedonic motivation, have an effect on millennials' intention to act. The results from our survey also show that the correlation between millennials' hedonic motivation and their intention to act is arguably strong, supporting the arguments by Ajzen (1991) who discussed consumers' motivation as an essential factor that influences their intentions and subsequently, their behavior.

### *Trust*

The importance of consumers' trust in the context of online marketing has been studied by a number of scholars (Soh, Reid & King, 2009; Shen, 2014; Bleiera & Eisenbeiss, 2015). Consumers' trust has a significant role in the way they perceive advertisements, which could influence the level of confidence they have towards the advertisement source and the promoted items and, as a result, their intention and behavior (Soh, Reid & King, 2009). Similarly, Shen (2014) argued that in order for consumers to have trust, they need to perceive the advertisement source, namely a brand or company, as 'credible', while Bleiera and Eisenbeiss (2015) discovered that consumers' trust in a particular brand depends on the extent to which they trust that the brand handles their personal data appropriately. Furthermore, according to Tucker (2014), high levels of trust towards a brand have proven to influence consumers' intentions, and ultimately their behavior.

Tucker (2014) and Aguirre et al. (2015) also discovered that click-through rates tend to increase when consumers are informed and in control of the data they share. When looking at outcomes from our empirical study, taking into account the findings from the participants altogether, the results show that trust has the strongest correlation with millennials' intention to act upon personalized advertisements on Facebook and, thus, is the most important PM factor. Taking into consideration the results per age and gender groups, it is evident that trust is more important to male participants than female participants. Trust is also more important to individuals between the ages of 24 and 29 than for those between 30 and 35, as well as 36 and 40. Nonetheless, regardless of where this factor has landed on the different rankings, our empirical findings clearly shows that trust strongly correlates with millennials' intention to act upon personalized advertisements on Facebook, supporting both our third hypothesis as well as the findings of previous studies. Therefore, it is vital for marketers to target consumers' trust in personalized advertisements by, for instance, being transparent about their data collection strategies as well as by ensuring that they are perceived as 'credible' among members of their target group. As Facebook (2021b) and Tucker (2014) state, Facebook has recently implemented new and stricter data collection strategies, aiming to increase consumers' control over the data they share on the platform. Consequently, as the use of social media platforms increases, consumers become more available but also vulnerable to companies using their data to design personalized advertisements. Therefore, as argued by Giampietri et al. (2018), consumers' trust is vital for them to, for instance, click on an advertisement on Facebook or to make a purchase.

### *Past Experiences*

As previously mentioned, several researchers have argued for the effect of past experience on consumers' behavioral intentions (Giantari, Rahayu & Solimum, 2013; Leeraphong & Mardjo, 2013; Pappas, 2018; Tyrväinen, Karjaluoto & Saarijärvi, 2020). For instance, Tyrväinen, Karjaluoto, and Saarijärvi (2020) found that a consumer's cognitive experience influences their way of processing information, while Pappas (2018) as well as Leeraphong and Mardjo (2013) identified that a consumer's past experience with a brand influences their behavioral intentions. Ajzen (1991) also argues for the importance of consumer's past experience on their perceived behavioral control, which increases their intention to act. Similarly, the findings from our empirical study show that past experience strongly correlates with all our participants' intention to act. Yet, for all participants, the same factor measured the lowest correlation among all other PM factors. These findings were also similar for males as well as for 30-to-35-year olds and 36-to-40-year olds, indicating a strong correlation with their intention to act upon an advertisement on Facebook, but ranked the lowest out of the factors. For female participants, however, the correlation could be argued as strong if using the arguments of Mason, Lind and Marchal (1983) as well as Weber and Lamb (1970 cited in Taylor, 1990), while only moderate using the arguments of Marañon (2021b). Lastly, for 24-to-29-year olds, past experience only had a moderate correlation with their intention to act. Hence, these findings suggest that consumers' past experience with a brand has a strong effect on their intention to act upon personalized advertisements on Facebook, even though it ranked the lowest out of all tested factors.

One may, therefore, argue that consumers' past experience is of importance and companies should ensure satisfactory experiences through both direct and indirect interactions with consumers. Consequently, we believe that experience in this context does not necessarily only refer to satisfactory previous purchases, but to all forms of communication and interaction with a given brand. More specifically, we argue that experience can be built by communication through customer service, posts not related to advertising purposes, as well as responses to comments on the brand's Facebook page. Furthermore, as argued by Maklan and Klaus (2011), it is also important for marketers to understand consumers' values and, thereafter, market to those who fit the brand's own values. Nonetheless, as shown by our empirical findings, as the goal of personalized marketing is to cater to the needs of each consumer, past experience may not be as important for a younger, female demographic.

### *Advertising Attributes*

The last PM factor, advertising attributes, has also been identified by researchers as having a correlation with consumers' intention to act. Chen, Hsu, and Lin (2010), Nguyen, Emberger-Klein, and Menrad (2019), and Choi, Kwon and Shin (2017) established the importance of price and promotions when designing personalized advertisements as they influence consumers' purchase intentions, resulting in more sales. Furthermore, personalization, through consumers' preference and interest, has also shown to have an effect on consumers' repeated purchase intention (Ha, Muthaly & Akamavi, 2010; Lemke, Clark & Wilson, 2011). Bhuyan (2011) similarly found that consumers' personal preferences influence their attitude, and, in turn, their purchase behavior. Our empirical study identified advertising attributes to have a strong correlation with all participants' intention to act. However, advertising attributes measured the second lowest correlation with intention to act compared to the other PM factors. This result was similar for all demographic groups, such as gender and age, except for participants aged 24 to 29. For this age range, advertising attributes only measured a moderate correlation with their intention to act, but still placed second to last in terms of our ranking. The findings indicate the importance of taking advertising attributes into account when designing personalized advertisements, such as personalizing the content based on the target groups' preferences and interests, but also price and promotion, as it has shown to positively influence consumer's purchase intentions. From a business perspective it has become evident in this study that tailoring the promotions and price is significant for the effectiveness of personalized advertisements on Facebook. For this to be possible, it is necessary for marketers to gain a comprehensive understanding of the members of their target group. From a consumer perspective, our research has shown that a platform like Facebook is well suited for marketers to gain knowledge about consumers' preference and interest, and, in turn, use it to develop a more personalized advertising experience.

### *Multiple Linear Regression*

It was also important to investigate the multiple linear relationship between the DV and IVs, to uncover the causes of variation in the DV and, subsequently, identify which IV is the strongest as well as the weakest predictor. As both literature and our empirical findings suggest, the PM factors all correlate with millennials' intention to act upon personalized advertisements on Facebook. Our findings suggest that all factors are important in terms of PM, and, as argued by de Pechpeyrou (2009), a personalized experience makes customers feel valued, resulting in an increase of intention to act. Our multiple linear regression analysis, however, looks at each of the five factors collectively in order to rank their influence on intention to act.

The strongest predictor, as well as the factor with the strongest correlation, was trust, further showing the importance of this factor. The weakest predictor was advertising attributes, which showed no statistically significant association with millennials' intention to act. This could indicate that the relationship between advertising attributes and intention to act may be weakened when including the influences of the other PM factors. Therefore, future research could benefit from re-running the same test without adding advertising attributes, to see if the results would yield even stronger effects on millennial's intention to act.

## 6. Conclusion

An observation of previous literature discussing the growing importance of PM across the internet sparked our curiosity, leading to the development of this thesis. As consumers are bombarded with numerous advertisements every day, the necessity to provide personalized advertisements tailored to the needs of each and every person is continuously on the rise. This research has, therefore, examined the factors deemed as most important by scholars who have conducted similar studies in the past. Following the discovery of several gaps within previous research, we recognized the need to study the strength of each of the identified PM factors more in-depth, including the extent to which they correlate with millennials' intention to act upon personalized advertisements on Facebook. Therefore, the following sections consist of our final thoughts based on both our primary and secondary research.

### 6.1. Research Aims

The primary aim of this research was to uncover, and, thereafter, determine the strength of the correlation between the PM factors, positive attitude, hedonic motivation, trust, past experience, and advertising attributes, and millennial consumers' intention to act upon personalized advertisements on Facebook. This allowed us to rank each of these factors, depending on their individual strengths, across different age and gender groups of our sample. Following an in-depth analysis of previous research on the given topic and the discovery of a number of research gaps, we were able to make several predictions for our own study in the form of six hypotheses. After conducting an empirical research in the form of a survey among millennials, the most active Facebook users in the world, we found that every factor strongly correlates with their intention to act upon personalized advertisements on Facebook. This implies that it is pivotal for marketers to consider these factors in order to maximize their efforts on Facebook. After analyzing the strength of these factors among all participants, the results showed that trust measured the strongest correlation, followed by hedonic motivation, positive attitude, advertising attributes, and past experience respectively. However, how they each ranked also differed depending on participants' gender and age group. For instance, for male participants, it was evident that trust was most important, while for female participants, hedonic motivation was more important. Following these outcomes, based on all participants, we were able to accept all six hypotheses as well as confirm the findings of previous research arguing for the importance of each PM factor respectively. Hence, our thesis, built on the evidence of previous research, shows that successful marketers are those who utilize their time to learn as much as possible about their target groups in order to tailor advertisements specifically to their needs by truly being able to influence their attitudes, understanding their motivations, gaining their trusts, providing them with a one-of-a-kind experience and maximizing the advertising attributes.

## 6.2. Implications

### 6.2.1. Research Implications

This thesis took a more holistic, overall view of each of the PM factors' correlation with millennials' intention to act upon personalized advertisements on Facebook. Our study is unique, as previous studies have mainly focused on consumers' attitude, trust and motivation, while our study has opted to combine these factors with consumers' past experience as well as advertising attributes. This was done, due to the abundant research on these factors when studying the topic of PM. Hence, we felt the need to combine all five factors in one cohesive study to expand on the knowledge of their effect on consumers, or in our study millennials' intention to act.

As millennials are among the most active on Facebook, our empirical study focused on millennials between the ages of 24 and 40, while investigating both the demographic differences and similarities in terms of their gender and age. We took this approach since previous literature was limited in their target samples, oftentimes including individuals of either one nationality or a very specific age group. Therefore, by involving participants from a specific generational cohort, regardless of their nationality, our study adds to already existing research and, therefore, deepens the knowledge of the topic of PM from a more global perspective. It is, however, recommended that future research looks at other features, such as participants' educational background and Facebook usage, to uncover the extent to which these could yield different research results.

We have also conducted this study through the application of the Theory of Planned Behavior, which, while widely popular among academics and practitioners, still faces some critiques in the degree to which the framework could effectively predict consumers' intentions and, subsequently, their behavior. Our research complements previous literature by applying the TPB and PM, as we collectively examine the five most prominent factors in one cohesive study. Subsequently, it could be interesting for future research to examine whether the application of other theories, such as the consumer cultural theory, yield different outcomes.

### 6.2.2. Managerial Implications

As there is a growing importance of personalized advertisements on social media, it is of essence for marketers to better understand how to maximize the use of PM. Our findings have been able to measure the strength of the relationship between the PM factors and millennials' intention to act. Subsequently, we were able to rank them accordingly, both for all our participants, but also based on their gender and age. Furthermore, our findings have identified the strongest and the weakest predictor of millennials' intention to act. The outcomes from our research could serve as a blueprint for companies aiming to better their PM strategies.

By understanding how different demographics and generational cohorts measure the presented PM factors, marketers can better design their advertisements to specific groups of consumers. Trust, hedonic motivation and positive attitude were the three most important factors for all participants across all demographics, meaning that it is vital to ensure these feelings are met by consumers. Past experience and advertising attributes did not measure as strongly as the three aforementioned factors. Consequently, it may be of importance for marketers to understand which factors to prioritize, which our findings have suggested through our presented rankings.

As described in the introduction section of this paper, larger corporations are often those with a bigger advertising budget compared to smaller, startup companies. This means that they have the ability to take more advertising risks compared to small to medium sized brands because of their advertising budget. Consequently, the knowledge in this paper could be used, especially by startups, to maximize creativity by designing personalized advertisements tailored to the individual needs of each and every customer.

Furthermore, since our study specifically focuses on Facebook, the leading social platform, we believe that our findings could be used to improve the advertising experience on the platform by building and strengthening consumers' trust. For instance, as trust measured the strongest correlation with intention to act, it is relevant for Facebook, as a vital advertising source, to make attempts to build consumers' trust on the platform. As one of our tested items for trust states, "Facebook is a trustworthy platform for personalized advertisements", it is of importance to, not only from a marketers' perspective to build trust, but also for consumers to perceive the social platform where personalized advertisements are displayed as trustworthy.

### 6.3. Limitations and Future Research

The first limitation of our study is our sampling method. By utilizing a non-probability sampling method, the conducted tests in this study are used as a benchmark rather than generalizable results across a whole generation. To be able to draw generalizable results across a target population, probability sampling methods are preferred. However, due to the ongoing pandemic and a lack of a suitable sampling frame, non-probability sampling was the chosen method. Therefore, the results in this study are limited to the sample of our study. Hence, future research could benefit from using a probability sampling method to ensure that the findings can be generalized further.

As our study also aimed to randomly select participants from our total number of valid responses, we opted to choose 55 respondents from each gender, as well as age category. This was mainly done due to the 55 male respondents in the age category of 36 and 40. This, however, meant that this demographic was not randomly selected, as the other groups were. Future research could, therefore, benefit from having an even larger group of respondents from each demographic set to be able to randomly select the final respondents. This would further reduce the human judgement of selection bias.

Another limitation is the chosen target population, millennials between the ages of 24 and 40, as Facebook users consist of all ages. Future research could, therefore, focus on studying other generational cohorts or several generations to test if the findings would differ further between people of different ages. As the outcomes of our research suggested, there were differences between our three age ranges, and, therefore, conducting the study across several generations could irradiate a better understanding of how PM strategies can be more effective across different target populations.

Future research could also include individuals from a specific country, region or group of countries altogether to draw further conclusions based on participants' nationality or country of origin. Our research asked participants for their nationality, in hopes of drawing conclusions across nationalities. However, the empirical study did not yield enough respondents from different nationalities to confidently draw such conclusions. Therefore, future research could have a narrower niche of nationalities in their target population to ensure there are enough respondents to measure the strength of the correlation between the PM factors and different nationalities' intention to act upon personalized advertisements on Facebook. Similarly, future research could aim to investigate how participants' responses would differ depending on consumers' educational background, as such comparisons were not made in this study.

Furthermore, our study focused solely on the social media platform Facebook. For further studies on this topic, it would be of interest to conduct a similar study using a different social platform or several platforms, for comparison. As social media marketing is of growing importance, it is, therefore, of interest to understand how marketers can more effectively design personalized advertisements across different platforms, such as Instagram, Twitter, YouTube and TikTok.

For this thesis, we have also not tested the PM factors and millennials' intention to act in relation to a specific product or industry. Thus, an idea for researchers who wish to expand on this study is to focus on a specific industry, such as the fashion industry or a specific product category, like clothing, cars or food, and examine the extent to which such a study could yield different results.

Lastly, our multiple linear regression analysis indicated that advertising attributes showed no statistically significant association with intention to act. Further research could, therefore, benefit from re-running the multiple linear regression test without the factor advertising attribute to investigate if there would be further improvement of the model. This would allow for a comparison to be made between the two results, and lead to further improvements in terms of parsimony. The test suggests that the relationship between the PM factors and intention to act may be improved if eliminating advertising attributes. Consequently, future research could investigate such questions further.

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# Appendices

## Appendix A - Survey Questions

### **Master Thesis Study: Personalized Marketing on Facebook**

Dear participant,

Thank you for agreeing to take part in this study. We are Lorenzo and Lovisa, Master's students (MSc) in International Marketing & Brand Management at Lund University, Sweden. As part of our master's thesis, we are conducting a survey among millennials (individuals born between 1981 and 1996). This study is designed to help us identify the strength of the relationship between personalized marketing factors and consumers' intention to respond to a personalized advertisement on Facebook.

This study should not take more than 10 minutes to complete. Please note that you must be born between 1981 and 1996, but also a Facebook user, to participate.

At the end of this survey, you are welcome to leave your email address for a chance to win an Amazon gift card worth 100 SEK or €10. Two respondents will be chosen at random and contacted in approximately two weeks. Entering the survey several times will not increase your chances of winning.

If you have any questions or thoughts, please contact us:

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Lovisa Svensson, Lo0143sv-s@student.lu.se

### **Section I**

This section is designed to ensure that we are reaching our correct target group (millennials on Facebook), for this to be possible, it is important for you to answer all questions.

Please note! If you are not 24 to 40 years-old the survey will end after this section.

1. What is your gender?

- Male
- Female
- Nonbinary
- Other
- Prefer not to say

2. How old are you?

- 23 or below - *opt out*
- 24 - 29
- 30 - 35

- 36 - 40
  - 41 or above - *opt out*
3. What is your nationality?  
*Open question*
  4. What is your highest educational level? (E.g., Bachelor's degree)
    - High school / Secondary school
    - Bachelor's degree
    - Master's degree
    - Other

**Section II** - In this section, please indicate the extent to which you use Facebook  
Please note! If you are not a Facebook user, the survey will end after this section.

1. Do you use Facebook?
  - Yes
  - No - *opt out*
2. For how long have you been using Facebook?
  - Less than a year
  - Between 1 and 2 years
  - Between 3 and 4 years
  - Between 5 and 6 years
  - More than 6 years
3. How often do you use Facebook per week?
  - 2 hours or less
  - 3 - 5 hours
  - 6 hours or more
4. Which device do you use to access Facebook the most?
  - Computer
  - Smart table
  - Smartphone
  - Other

### What is Personalized Marketing?

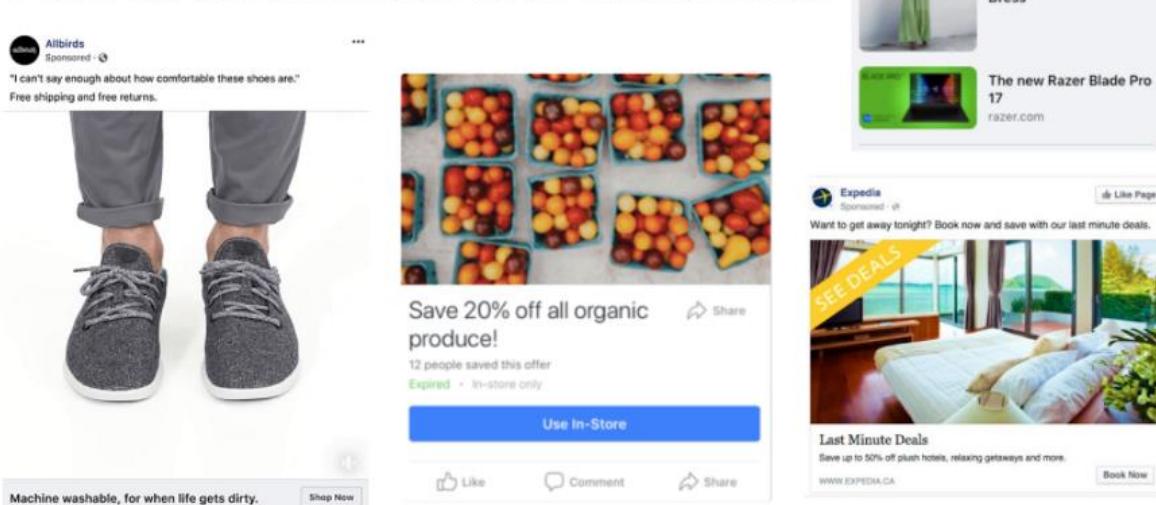
Personalized marketing is, “the process of delivering targeted products and services to a customer based on the customer’s profile” (Tang, Liao, and Sun, 2013).

In other words, personalized marketing includes advertisements that are designed to fit customers based on, for instance, their likes, preferences, and interests. To do so, the advertisement may use your profile, location, or search history to create an advertisement specifically for you.

Personalized advertisements can be found nearly everywhere on the internet, including social media. In this study, however, we are examining personalized advertisements on Facebook. Therefore, we ask you to keep this social media platform in mind when answering the questions below.

It is important to note that personalized advertisements may be subtle in their way of using your data or cookies, showing, for instance, product categories you have previously been browsing. You might also come across an advertisement that is targeted towards you based on your current location, or being personal by mentioning your name.

## Examples of Personalized Advertisements on Facebook



### Section III

Below we will present you with statements where we wish for you to keep Facebook in mind as you provide an answer. We kindly ask you to indicate the extent to which you strongly agree (7) or strongly disagree (1) with the following statements.

#### *Attitude*

1. In general, I like personalized advertisements on Facebook
2. I would describe my overall attitude towards personalized advertisements on my Facebook page as favorable
3. Personalized advertisements on my Facebook page are interesting to me
4. I consider personalized advertisements on my Facebook page a good thing

#### *Motivation*

1. Seeing a personalized advertisement on Facebook is fun

2. Seeing a personalized advertisement on Facebook is exciting
3. Seeing a personalized advertisement on Facebook is enjoyable
4. Seeing a personalized advertisement on Facebook is thrilling

*Trust*

1. I believe in the information that personalized advertisements on Facebook provide me
2. Facebook is a trustworthy platform for personalized advertisements
3. I trust that personalized advertisements on Facebook keep my best interest in mind
4. Personalized advertisements on Facebook keep promises made to me

*Past Experience*

1. I am more likely to appreciate a personalized advertisement on Facebook if I have previously heard/seen/read positive things about the advertiser
2. I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience with the advertisers' products/services
3. I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience communicating with the advertiser (e.g. customer service, social media account)
4. I am more likely to appreciate a personalized advertisement on Facebook if the advertisers' values correspond with my own values

*Advertising Attributes*

1. A personalized advertisement on Facebook can provide me with information that is tailored to my preferences
2. A personalized advertisement on Facebook can provide me with information that is tailored to my personal interests
3. Personalized advertisements on Facebook should provide me with tailored deals that I might like
4. Personalized advertisements on Facebook should provide me with clearly communicated prices

**Section IV - When I come across a personalized advertisement on Facebook, I am more inclined to...**

1. Become a fan (or follow) of the company/brand
2. Visit the company/brand's website
3. Purchase the advertised product/service
4. Plan to purchase the products that are advertised on Facebook

**Thank you for your participation!**

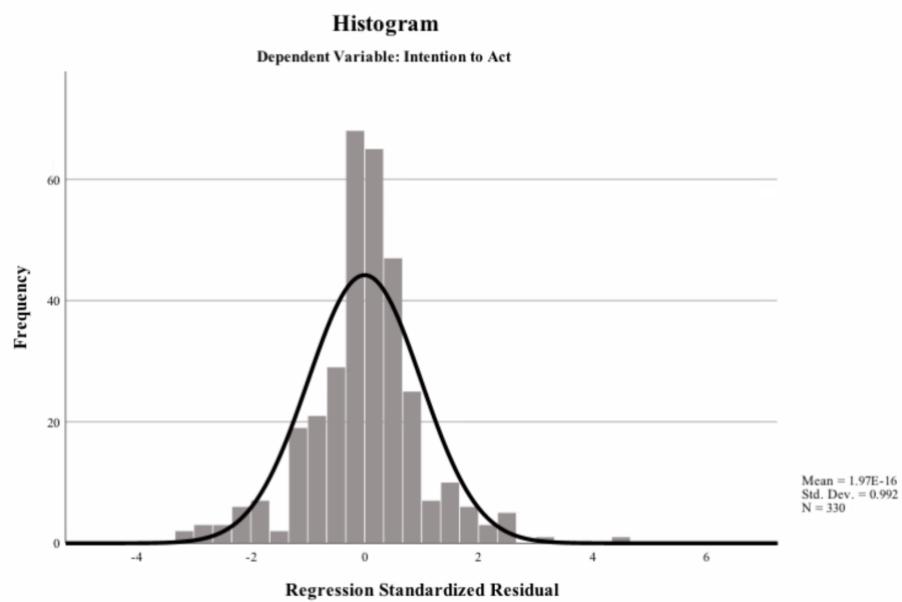
We appreciate that you have taken the time to complete our study. Should you have any feedback or general recommendations for us, based on, for example, statements that were unclear, grammar-related issues, and/or others, please indicate this in the box below. You can also get in touch with us if you wish to obtain more information: Lo5337di-s@student.lu.se /

Lo0143sv-s@student.lu.se. For SurveyCircle users ([www.surveycircle.com](http://www.surveycircle.com)): The Survey Code is: DT7D-MU14-MM12-5B4W

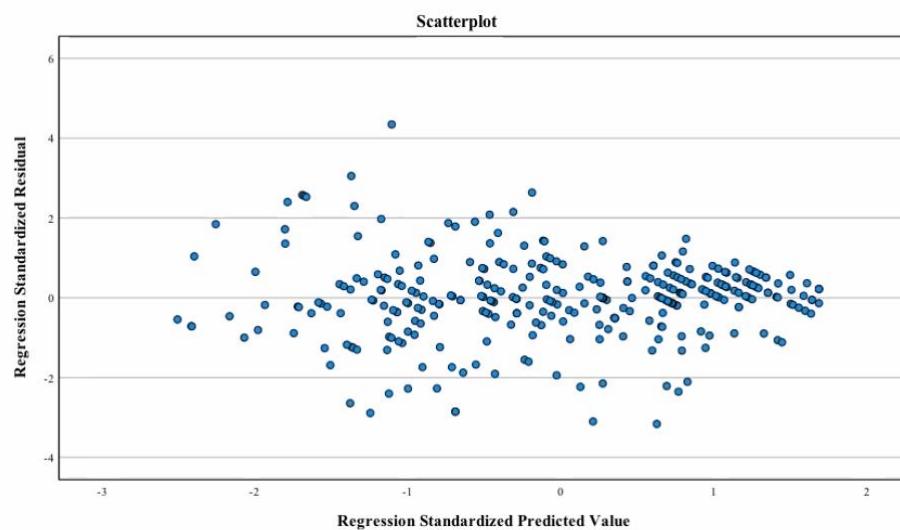
## Appendix B - Cronbach's Alpha and Mean Values for All Items

| Items  | Mean value | $\alpha$ if item is deleted |
|--|------------|-----------------------------|
| Positive attitude  | 4.606      |                             |
| In general, I like personalized advertisements on Facebook   | 4.65       | 0.877                       |
| I would describe my overall attitude towards personalized advertisements on my Facebook page as favorable  | 4.57       | 0.880                       |
| Personalized advertisements on my Facebook page are interesting to me  | 4.58       | 0.875                       |
| I consider personalized advertisements on my Facebook page a good thing  | 4.63       | 0.872                       |
| Hedonic motivation   | 4.413      |                             |
| Seeing a personalized advertisement on Facebook is fun   | 4.47       | 0.898                       |
| Seeing a personalized advertisement on Facebook is exciting  | 4.40       | 0.905                       |
| Seeing a personalized advertisement on Facebook is enjoyable   | 4.40       | 0.902                       |
| Seeing a personalized advertisement on Facebook is thrilling   | 4.38       | 0.909                       |
| Trust  | 4.514      |                             |
| I believe in the information that personalized advertisements on Facebook provide me   | 4.51       | 0.891                       |
| Facebook is a trustworthy platform for personalized advertisements   | 4.54       | 0.883                       |
| I trust that personalized advertisements on Facebook keep my best interest in mind   | 4.42       | 0.883                       |
| Personalized advertisements on Facebook keep promises made to me   | 4.58       | 0.888                       |
| Past experience  | 5.036      |                             |
| I am more likely to appreciate a personalized advertisement on Facebook if I have previously heard/seen/read positive things about the advertiser        | 5.02       | 0.860                       |
| I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience with the advertisers' products/services | 5.05       | 0.862                       |
| I am more likely to appreciate a personalized advertisement on Facebook if I have had a positive past experience communicating with the advertiser       | 5.05       | 0.876                       |
| I am more likely to appreciate a personalized advertisement on Facebook if the advertisers' values correspond with my own values                         | 5.02       | 0.851                       |
| Advertising attributes   | 4.930      |                             |
| A personalized advertisement on Facebook can provide me with information that is tailored to my preferences  | 4.91       | 0.807                       |
| A personalized advertisement on Facebook can provide me with information that is tailored to my personal interests                                       | 4.86       | 0.796                       |
| Personalized advertisements on Facebook should provide me with tailored deals that I might like  | 4.87       | 0.817                       |
| Personalized advertisements on Facebook should provide me with clearly communicated prices   | 5.08       | 0.853                       |
| Intention to act   | 4.642      |                             |
| Become a fan (or follow) of the company/brand  | 4.52       | 0.878                       |
| Visit the company/brand's website  | 4.85       | 0.900                       |
| Purchase the advertised product/service  | 4.58       | 0.876                       |
| Plan to purchase the products that are advertised on Facebook  | 4.61       | 0.868                       |

## Appendix C - Histogram of Regression



## Appendix D - Scatterplot of Regression



## Appendix E - Normal P-P Plot of Regression

