Factors Influence Purchase Intention in Marketing Communication

An Experimental Investigation of Human Images in digital display advertising

XINWEI ZHANG

Lund University
Department of strategic communication
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Abstract

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With the number of digital display advertisements increasing, consumers have become accustomed to ignoring or skipping internet ads. Previous research has investigated the use of different types of human images (like celebrities and social media influencers) in advertising to improve advertising effectiveness. However, existing studies neglect the role of normal people and examine the presence of human images in advertising in general. This study aims to contribute new knowledge about marketing communication. Using the AIDA model and the theory of planned behaviour, the study proposes a new model to explore factors that could influence consumers' purchase intention. The analysis confirms that there is a significant interaction effect between 'attention', 'interest', 'attitude', and 'social norm' with purchase intention. Additionally, an AB testing experiment approach is applied to test the effect of human images on consumers' purchase intention. The experiment suggests that human images appearing in advertising will positively influence the above four factors as well as consumers' purchase intention. The result from the experiment also provides evidence that for consumers who can identify the social media influencer shown in the ad, ads that include social media influencer images could lead consumers to generate higher purchase intent than ads that include normal human images.

Keyword: Marketing Communication, Digital display advertising, Human images, Social media influencers, AIDA model, TPB model, Purchase intention

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1. Introduction

1.1 Background

Every day, through social media, online platforms, or websites, consumers can gather and share billions of information, post and customize their preferences, and communicate with other consumers, product producers, or service providers (Pavlou & Stewart, 2000; Berger, 2014). As these social media, online platforms, and websites are used by many consumers, advertisers will choose to place their ads on these platforms. Digital advertising shows strong growth in all regions and the global digital advertising revenue reach 465,5 billion US$ in 2021 (Statista, 2021a). As a result, the number of online advertisements continues to grow each year, combined with the huge amount of information that consumers will receive every day, consumers have become accustomed to ignoring or skipping internet ads (Resnick & Albert, 2014). Therefore, consumers will make a quick decision about whether to stay on the website within a short period (Bucher & Schumacher, 2006; Lindgaard et al., 2006). In this context, the challenge for advertisers is to attract the attention of consumers. Visual elements could influence consumers' purchase decisions and an aesthetically pleasing design could increase consumers' interest and trust (Townsend & Shu, 2010; Lindgaard, Dudek, Sen, Sumegi, & Noonan, 2011). Thus, to get consumers' attention, more and more ads are following the trend of the times and becoming more and more aesthetical (Huang, 2018).

Moreover, collaborating with traditional celebrities as well as social media influencers (SMIs) to capture the attention of consumers is also one of the ways advertising is often used today (Schouten, Janssen & Verspaget, 2020). SMIs refer to people who have become famous for their presence on social media, as opposed to traditional celebrities famous for sports, movies, music, and TV shows, before they participate in advertising activities (Khamis, Ang & Welling, 2016). As opinion leaders, SMIs can have a purposeful impact on members of a particular community who gather around common interests. Moreover, there are many influencers on social media that are focused on digital product reviews and collaboration with SMIs is more cost-effective and easier to generate content than traditional media ads or celebrity endorsements (Lou, Tan & Chen, 2019). Thus, the strategy of collaborating with SMIs is recognised by most companies (Lou & Chen, 2019).

The smartphone is an important communication tool for today's generation and almost no one can live without it. According to the survey, the average frequency of consumers replacing their mobile phones is 33.6 months in 2020 (Statista, 2020). So, in order to attract new consumers, mobile phone manufacturers are partnering with many traditional celebrities and SMIs to promote their products. Previous research has looked at differences in how consumers perceive different types of people endorsing the same product and the impact of different types of endorsers on consumer perceptions. Existing research related to SMIs focuses on the role of SMIs and how to work with SMIs in the digital marketing communication field, as well as compares SMIs with traditional celebrities. Previous studies neglected to examine the effect of the presence of human images in general, and the effect of the presence of normal people in advertising has been ignored.

Therefore, this study wants to explore the effectiveness of two similar and comparable sets of ad content - ads with human faces vs ads without human faces. And explore the impact of the presence of normal people images in advertising as well as the difference in the impact of images of SMIs and images of normal people on consumers' purchase intentions.

1.2 Aim and Research question

Following the background, the main aim purpose of this study is to expand the knowledge of marketing communication research. This study suggests two groups of advertising that are similar and comparative. More specifically, this study wants to compare the influence of ads with human images and ads without human images on consumers' purchase decision process. As well as the influence of ads with normal people images vs ads with SMIs images. The author will draw upon existing studies on digital display advertising and consumer purchase intention to gain a deeper understanding of the effect of the human image. As a result, provide insights into how companies strategically use SMIs or normal people images in ads to increase market acceptance of their products. In order to achieve this purpose, the author seeks to answer the following research questions:

RQ: How to use human images in digital display advertising to increase the effectiveness of advertising and the purchase intention of consumers?

By answering the research question, this thesis contributes to previous studies in three aspects. First, with the help of an experimental method, it observes the impact of different types of human images on consumer purchase intention towards a product. Second, it enhances and extends the application of purchase funnel theory and theory of planned behaviour (TPB) in the context of digital display advertising. Finally, this thesis provides further insights and builds a deeper understanding for academics and practitioners of how human images in advertisements are perceived by consumers. As a result, this thesis will enrich the research field of marketing communication.

1.3 Relevance

Digital display ads are a kind of information that can be seen everywhere. By placing advertisements, companies hope to attract people's attention and in turn get potential consumers to make a purchase decision. Display advertising can have a huge impact on a brand's products and brand image (Bart, Stephen & Sarvary, 2014). Moreover, good use of display adverts can help a company achieve its goals or even upgrade its brand (Scott, 2015). How to improve the effectiveness of ads has also been a popular focus in marketing communication in recent years.

Using experimental methods to explore the differences in the effectiveness of different elements in created scenarios as well as the impact of different elements on consumer perceptions, casual relationships can be explored which is something that observational studies cannot do. By providing empirical evidence, marketers, organisations, academics, and professionals will be helped to recognise the impact of the human image that is included in advertising on the effectiveness of advertising and consumer purchase intention.

Furthermore, the analysis will expand the field of influencer marketing as well as digital display advertising by comparing advertising that contains human images with ads that do not include human images; comparing ads that include SMI images with ads that include normal people images. By finding out if the human image factor has an impact on purchase intentions and to what extent human image will affect the purchase intention. The results of this study can help companies not only in the smartphone industry but also in all industries to improve the effectiveness of their display advertising which is a contribution to the existing marketing communication knowledge.

Hallahan et al. (2007) define strategic communication as a way that helps organizations reach their objectives and mission. Marketing communication is one of the research areas under strategic communication. From a strategic communications perspective, this paper will enhance knowledge in marketing communication which also enhances knowledge in strategic communication. Moreover, the result of this study can provide insight into the strategic use of SMIs or human images in ads. This could help the company to improve the effectiveness of its ads and achieve its goals. Therefore, a contribution to this knowledge is a contribution to strategic communication.

1.4 Disposition

The structure of this study is as follows. In the next chapter, a literature review related to the topic will be presented to have a better understanding of digital advertising, and map out the contribution of this study to the existing literature. In the "theoretical framework and hypotheses development" chapter, the AIDA model and TPB model will be presented. Following that is the "methodology" chapter, the methodology, experiment design, sample selection, and data collection will be described. Afterwards is the "results and analysis" chapter, all results from the experiment will be shown and discussed. The "discussion and conclusion" chapter follows, which will compare, discuss, and contrast the statistical findings further with the research question and previous studies. This chapter will also include conclusions, implications, limitations, and suggestions for future research.

2. Literature review

This chapter seeks to offer a comprehensive review of the core research conducted in the field of digital marketing communication to obtain a better grasp of the field and to be able to map out the research gap and how current research contributes to the field. First, the main concepts, definitions, and previous focus of digital display advertising are provided. Following this is a comprehensive review of previous studies about human images in digital display advertising. Afterwards is the influencer marketing section, demonstrating the background, the effectiveness of influencer marketing, and the focuses of previous research. After this section, the impact of visual and verbal elements in digital display ads on consumer attention is reviewed. Lastly, a synthesis is provided with the problem which has not yet been sufficiently analysed, and the contribution are defined.

2.1 Digital display advertising

Digital (Online) display advertising is defined by Goldstein et al. (2014) as "advertisers pay publishers (websites) to run display ads that users (website visitors) see alongside other content" (p. 742), and the graphic elements in the advertisement can differ in size, shape, animation, duration, etc. Moreover, digital display advertising is mostly displayed in online media which are not searching engines, and the form of digital display ads includes banner ads, text ads, media-rich ads, and video ads (Goldfarb, 2014). Among all the forms of digital display ads, banner ads are the most widely used form (Sundar & Marathe, 2010; Lambrecht & Tucker, 2013). In the scope of the present research, the author adheres to the definition of Digital display advertising defined by Goldstein et al. (2014).

Figure 1. Different types of Digital display ads
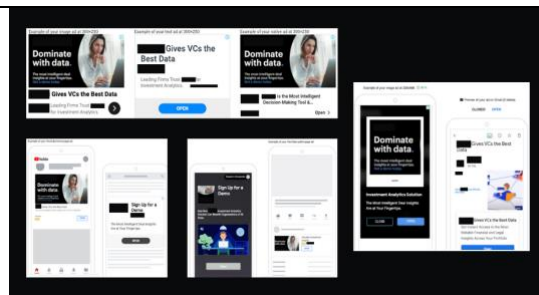
Since the early days of online advertising, marketers and researchers have sought to improve the effectiveness of advertising by targeting people with relevant browsing and search histories (Pavlou & Stewart, 2000; Sherman & Deighton, 2001). Digital display advertising provides a bunch of factors that can be used to target advertising (Goldfarb, 2014). Through collecting past search, view, and purchase history of consumers which enables advertisers to better understand consumer preferences, personalised product-based banners will be released to the target consumer groups (Sundar & Marathe, 2010; Lambrecht & Tucker, 2013). Personalised ads also include a display of the specific products previously viewed by the consumer (Lambrecht & Tucker, 2013). But previous studies show that personalized ads don't always work well. Goldfarb and Tucker (2011) demonstrated that personalised ads can have a negative impact on display ad performance when combined with highly visible material. Similarly, Lambrecht and Tucker (2013) found that retargeted personalised ads (i.e., display a particular product that the customer has previously viewed) are typically underperforming compared with general ads. However, this relationship will reverse when consumers visit specific online review websites (Lambrecht & Tucker, 2013). It also shows that consumers' reactions and attitudes to ads can change depending on the platform on which ads are displayed. Therefore, to guarantee the accuracy of the results, in this study, the questionnaire will display the advertisements without showing any platform features to avoid consumers' preconceptions influencing the final results.

Previous research on digital display advertising has explored a number of different aspects, such as the content of digital display advertising as well as factors that affect the recognition process of ads. In the early days of research about the content of digital display advertising, Drèze and Hussherr (2003) find that consumers avoid looking at the ads during their online activities which refer to the "banner blindness". Despite the fact that consumers purposefully avoid looking at display ads, this study concludes that display ads still have a positive impact on brand recognition and advertising recall (Drèze & Hussherr, 2003). Burke et al. (2005) compare different online banner ad types (animated ads, static ads, cyan with flashing text ads, and blank ads) and the result demonstrated that both animated and static ads reduce the visual search speed of consumers and the fact that animated ads are harder to remember compared with static ads. In the animated ads range, Yoo and Kim (2005) compare the effects of different speed animations (no animation, moderate animation, and fast animation) and find moderate animation ads can have a positive

effect on ad recognition as well as brand attitude. There is no significant difference between animated and static ads in terms of getting consumers' attention (Burke, Hornof, Nilsen & Gorman, 2005). In an investigation into display ads and purchase behaviour, Manchanda et al. (2006) point out that digital display advertising will not only have an impact on consumer recognition and brand attitude but also could have a positive impact on the purchase frequency of existing consumers (Manchanda, Dubé, Goh & Chintagunta, 2006). In addition, with the popularity of smartphones, studies within the field of digital display advertising on mobile phones have been explored by many researchers. Andrews et al. (2015) mention that mobile provides a range of target variables (i.e., time, weather, location, crowdedness) that can be used for purchase impressions which means personalized ads can be more precise. Regarding the impact of mobile digital display advertising, Bart et al. (2014) point out that a significant proportion of consumers who were exposed to mobile digital display advertising reported being more likely to subsequently purchase the advertised brand, and mobile digital display advertising is more effective at changing brand awareness, attitudes and intent than comparable traditional online display ads. Because of the high efficiency and impact of mobile digital display advertising, it has been interesting for researchers to explore factors that influence the effect of mobile digital display advertising.

2.2 Human images in digital display advertising

Endorsements are commonly used by marketers to promote products, brands, and services, as well as improve the credibility and effectiveness of the advertising (Schouten, Janssen & Verspaget, 2020). An endorser is usually a celebrity with a positive image, such as actors, models, athletes etc. Trustworthy, attractive, and popular celebrities have a positive impact on brand ratings (Bergkvist & Zhou, 2016). By adding endorser images to the ad, the positive image and characteristics of the endorser are then transferred to the product and even the brand (Schouten et al., 2020). Many previous studies have confirmed that celebrity endorsements dramatically boost the effectiveness of advertising (Amos, Holmes & Strutton, 2008; Bergkvist & Zhou, 2016; Schouten et al., 2020). Likewise, Friedman et al. (1976) suggest that advertisements with endorsers increase consumer credibility compared to advertisements that do not use endorsers.

In online display advertising, the human face is valuable in understanding the characteristics, personality, intentions, and emotions of others, which is considered to be a uniquely effective stimulus for attracting visual attention (Vuilleumier & Schwartz, 2001). Moreover, behavioural data suggests that when the face is present in a visual scene along with other stimuli, the face can be more likely to attract attention than other objects (Vuilleumier, 2000; Kuisma, 2015). Thus, human faces are likely to be a powerful means of attracting and retaining viewers' attention in an online advertising environment (Kuisma, 2015; Schouten et al., 2020). Xiao and Ding (2014) point out that faces can not only attract viewers' attention but also influence their reactions to advertisements, and people show fairly constant preferences regarding faces. Similarly, Sajjacholapunt and Ball (2014) conducted that compared to the advertisements that did not contain faces, the advertisements with human faces will make viewers stay longer, and viewers will generate a higher level of attention which leads to better memory for advertising content. In the ad, it is thus clear that the face is a key factor influencing the impact of human images.

Many aspects can influence the effectiveness of human images in advertising. First, the effectiveness of the appearance of human images in advertising is influenced by the product category. Usually, presenting an image of an expert in the relevant field in an advertisement can enhance the effectiveness of the advertisement when the product is technically complex, or when the consumer needs to be confident in its functionality (Munnukka, Uusitalo & Toivonen, 2016). Second, when a human image appears in multiple advertisements about different products, thus inflating the associations with the specific product it leads to a reduction in the credibility not only of the individual but also of the advertisement (Munnukka et al., 2016). Third, Schouten et al. (2020) point out that the direction of the eye gaze of the faces in an advertisement can also affect the effectiveness of the advertisement. Comparing to the averted gaze condition, the mutual gaze condition could lead to better memory of ad content for the viewer (Schouten et al., 2020). Lastly, when the image of the individual does not match the image of the brands, it can lead to negative comments about the individual and even the brand, which in turn can affect the effectiveness of the advertisement (Munnukka et al., 2016; Schouten et al., 2020). Therefore, to ensure the effectiveness of your advertising, marketers need to be careful in selecting the individuals who appear in their advertisements as well as the present form (Munnukka et al., 2016).

2.3 Influencer Marketing

Influencer marketing is a marketing strategy that uses the influence of social media influencers (SMIs) to increase consumers' brand awareness and/or their purchasing decisions (Scott, 2015). Usually, SMIs promote the brand's products or services on their account, either directly shown on the advertisement or more subtly, such as by placing a product on a table which means they will promote the content to both the followers of SMIs and the target consumer groups of the brand (Lou & Yuan, 2019). Luo and Yuan (2019) define SMIs as "a content generator; one who has a status of expertise in a specific area, who has cultivated a sizable number of captive followers—those are of marketing value to brands—by regularly producing valuable content via social media" (p. 59). It is clear that SMIs refer to people who have become famous and influential for their presence on social media, as opposed to traditional celebrities famous for sports, movies, music, and TV shows, before they participate in advertising activities (Khamis, Ang & Welling, 2016). SMIs have previously established themselves by focusing on a certain field which means that consumers are more inclined to accept or believe an influencer's opinions when they work with businesses that fit their unique area of expertise (Khamis, Ang & Welling, 2016). And a recent study also points out that compare with collaboration with traditional media ads or celebrity endorsements, it is more cost-effective and easier to generate content to collaborate with SMIs (Lou et al., 2019). Reports in recent years show that people trust SMIs almost as much as they trust their friends; nearly 40% of Twitter users have made a purchase at some point because of an influencer's recommendation; and 70% of teenage YouTube users report that they think YouTubers (influencers on YouTube) are "more like one of us and close to us" and they have a closer relationship with SMIs than traditional celebrities (Lou et al., 2019). Based on what was mentioned above, it is very feasible to use social media influencers in marketing.

Previous research looked at the aspects that related to the efficacy of influencer marketing in a variety of situations. De Veirman, Cauberghe, and Hudders (2017) demonstrated that when developing an influencer marketing strategy, SMIs' follower numbers, followers/followees ratio, and product kind (i.e., divergence level) should all be taken into account. Lu, Chuan, and Chang (2014) mention that except the type of sponsorship and product type, brand awareness of consumers could affect consumers' attitudes towards influencer marketing. In addition, Djafarova and Rushworth (2017) have examined the impact of the credibility of SMIs' profiles in influencing

the purchase decisions of young female consumers, and the result shows that the credibility and trust of SMIs could impact the purchase intention of young female consumers. Therefore, lots of aspects or factors could impact the efficacy of influencer marketing.

2.4 Influence of visual and verbal factors in digital display advertising

According to the dual-coding theory, the cognition of humans consists of visual and verbal systems (Paivio, 1986). When an external stimulus is received, the information is converted into a representation, but visual memory and verbal memory are stored separately (Paivio, 1986). There is a reference relationship between visual and verbal memory, and the combination of the two can enhance cognition and improve memory (Paivio, 1991). When visual and textual elements are present at the same time, the consumer gets more information than with a single text or visual element (Paivio, 1991). In the cognitive system that extends from dual-coding theory, everyone acquires and uses information in different ways and will perceive it differently, for example, some people will use more verbal cues to get information and others prefer to use more visual cues to get information (Richardson & Sheikh, 2020). It has been suggested that visual factors and verbal factors could affect each other and when an ad has concrete images, the imagery instructions in the caption can more effectively stimulate a consumer's mental imagery association (Walters, Sparks & Herington, 2007). Likewise, Mayer (2005) concludes that ads containing both visual elements and verbal elements can strengthen consumers' relevant memories. Numerous eye-tracking experiments on print ads have also proven that photo/image type ads are more eye-catching than text-only ads (Goodrich, 2011). Thus, most display advertising today includes a visual element - the image, and a verbal element - the caption.

The photo/image element is often considered to be the main element that attracts the consumer's attention (Dreze & Zufryden, 1997; Rossiter & Percy, 1997; Blackwell, Miniard &Engel, 2006; Wells, Burnett & Moriarty, 2008). Rossiter and Percy (1997) argue that "the picture is the most important structural element in magazine advertising, for both consumer and business audiences," and they suggest that "the straightforward rule for magazine ads, therefore is "the bigger the picture, the better" (p. 295). Similarly, Wells, Burnett, and Moriarty (2008) conclude that the larger the

illustration in the advertisement, the greater the attention it will receive. Moreover, Shaouf, Lü and Li (2016) found that consumers are only willing to buy if they like the design of a website advertisement. The visual elements of an advertisement can therefore influence consumers' attention and willingness to buy and even their attitude towards a brand (Sundar & Noseworthy, 2014; Shaouf, Lü & Li, 2016). And verbal elements are also key to attracting consumers' attention; good taglines and headlines can help to communicate the content of an ad (Pieters & Wedel, 2004). According to a prior study on the size, format, text, and image in online adverts, online display banner ads with larger images and limited text content are more aesthetically attractive (Huang, 2018). In this study, all advertisements will take the same ad text content to ensure the accuracy of the experimental results.

2.5 Synthesis

As shown, a growing body of literature has investigated how to effectively use SMIs in advertisements to improve the effectiveness of ads as well as how to design and select verbal and visual factors to attract consumers' attention. But as the literature demonstrates, the extent of the earlier research focuses on the effectiveness of a single type of human image used in advertising and links the type of character to the intention. As well as focused on the differences in the effectiveness and impact on consumers of the use of SMIs and traditional celebrities in advertising. Existing research on online display advertising lacks studies on the effect of human images in advertising on consumer purchase intentions in general and compares the effect of SMIs with normal people appearing in advertising. Therefore, based on the previous literature and research suggestions from scholars, this research intends to address the literature by exploring the human image in an advertisement in general, and further investigate how human image influences consumer's purchase intention as well as the differences in the impact on purchase intention between SMIs and natural people.

3. Theoretical framework

This chapter sets out to explain the present research's theoretical framework. The section begins by outlining the framework of the theory of purchase funnel, afterwards is followed by the theory of planned behaviour (TPB). The goal of using the purchase funnel and TPB is to explore factors that could impact the purchase intention of consumers. And based on that investigate the differences of impact between digital display ads with normal human images or SMI images and digital display ads without human images on the purchase intention of consumers. After the theoretical framework is presented, based on the AIDA model and TPB model, the hypotheses development is presented. Lastly, the research model for this study is demonstrated.

3.1 Purchase funnel

The purchase funnel is a marketing model that focuses on consumers and this theory is deeply rooted in the traditional hierarchy of effects models (Barry & Howard, 1990). The hierarchy of effects models suggests that advertising is a driving force that propels consumers over time through different discrete stages and ultimately leads them to make a purchase (Barry & Howard, 1990). There are many different types of purchase funnel models, the traditional linear purchase funnel model - AIDA purchase funnel model will be used in this study. And the acronym of the name refers to attention, interest, desire, and action. AIDS model highlights the four-step cognitive processes that an individual goes through after receiving a new idea or purchasing a new product (Michaelson & Stacks, 2011). The four-step formula is to get attention, attract interest, and create desire, and the last step is to take action (Heath & Feldwick, 2007). This model is highly effective in analyzing the influence of advertising because it controls every stage of the psychological shift that occurs from the moment an individual sees an advertisement until the individuals involved make a purchase (Kojima et al., 2010).

In the online advertising world, although the AIDA model was proposed centuries ago, the basic principles of the model are still relevant. Consumers still need to be aware of the existence of

products or services, show interest in products or services based on the relevant information obtained, and express a desire or intention for these products or services because these products or services meet the needs, wants and interests of consumers, and finally, take action to make a purchase decision or other relevant behaviour (Michaelson & Stacks, 2011). The AIDA model has different levels. The first level is the cognitive level which is about getting the attention or awareness of consumers. Digital display advertisements can draw consumers' attention and awareness, and let consumers know the existence of the product or service. The second level is the affective level, consumers are interested in the services being offered and would like to learn more about them. Digital display advertisements are also relevant at this level, by providing attractive information to let the consumer generate consideration or even intention. The last level is the behaviour level, the action takes place and consumers will think of the service or the product as a valued resource.

Figure 2. AIDA model

It has been argued previously that the AIDA model has been used extensively in the online marketing field and is suitable for studying the impact of advertising (Heath & Feldwick, 2007; Kojima et al., 2010). However, it is also argued that there is a lack of research into how the AIDA model can be applied to online marketing. Thus, this study will base on the AIDA model and

adapts the model with other theory to analyse the impact of advertising on consumer purchase intention.

3.2 Theory of Planned Behaviour

The theory of planned behaviour (TPB) is a theory that extends from the theory of reasoned action (TRA) which was first proposed in 1980 by Martin Fishbein and Ajzen (Ajzen, 1985). The TPB theory is organically rooted in psychological science but now has been applied to a wide variety of fields, including advertising, communication, public relations, and healthcare. The reason why TPB theory has been been used in so many studies is the fact that it provides a thorough understanding of the determinants of consumer intent and behaviour (Vermeir & Verbeke, 2008). The strength of TPB theory is that it links beliefs to behaviour. In TPB, the most immediate predictor of human actual behaviour is the behavioural intention, combine with other factors which could impact behavioural intention in the theory, TPB provides a causal structure for explaining and predicting a wide range of human behaviours including consumer behaviours (Ajzen, 1985; Madden, Ellen & Ajzen, 1992). As a result, it is possible to explore how and what different variable factors under personal dynamics influence consumer behaviour through the TPB theory model. In the context of advertising, the goal of advertising is to create consumer awareness, to create an impression of the brand and product, and finally to convince the consumer that their product or service is the best to motivate them to make a purchase decision (Trosslöv, 2001). Based on TPB theory, the impact of human images in ads on consumer intention and purchase behaviour can be explored by controlling variables in advertising.

Figure 3. Theory of planned behaviour
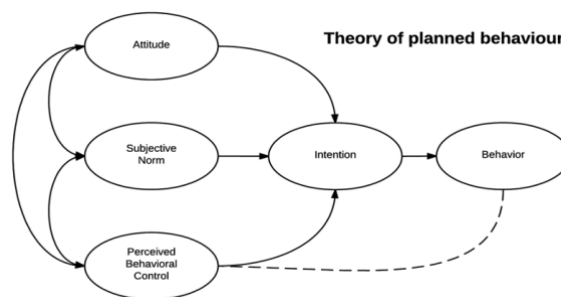
As visualized in Figure 3, attitude, subjective norm, and perceived behavioural control influence an individual's intention, and both the individual's intention and perceived behavioural control could influence the individual's final behaviour. Usually, the stronger the intention to engage in behaviour, the more likely it is to be carried out (Vermeir & Verbeke, 2008). In the theory model, the individual's intention is the critical construct since it mediates variables between personal dynamics and behaviour. According to Ajzen (2011), intention is the immediate antecedent of behavior and indicates a person's preparedness to do a certain behavior, and the intention is the direct function of attitude, subjective norm, and perceived behavioural control. And there is no assumption that attitude, subjective norm, and perceived behavioural control are all formed in rational, unprejudiced or all of them reflect reality as it is, regardless of how people arrive at their views about behaviour, norms, and control, their attitudes toward behaviour, subjective norms, and perceptions of behavioural control all follow their beliefs automatically and consistently (Ajzen, 2011). Thus, a realistic response is what the TPB model requires.

Moreover, attitudes, subjective norms, and perceived behavioural control also influence each other. Attitude refers to the level to which a person's opinion or appraisal of behaviour is favourable or unfavourable (Ajzen, 1985; Vermeir & Verbeke, 2008). The attitude towards a certain behaviour reflects the individual's evaluation of whether a certain behaviour is good or bad (Ajzen, 1985; Vermeir & Verbeke, 2008). In general, the more positive the attitude towards the behaviour, the stronger the individual's willingness to perform the behaviour (Armitage & Conner, 2001). Subjective norm is the perception of one person towards a specific behaviour that can be influenced by others, especially the judgement of significant others (Ajzen, 1985; Amjad & Wood, 2009). If a person agrees (or disagrees) with others' behaviour, they are more (or less) likely to engage in the behaviour (Hegner, Fenko & Teravest, 2017). Perceived behavioural control (PBC) is about the perception of one person towards performing a particular behaviour and the perception could be easy or difficult (Ajzen, 1985). In general, perceived behavioural control is comprised of two components: self-efficacy (concerning the ease or difficulty of carrying out a behaviour) and controllability (the extent to which performance is up to the actor) (Ajzen, 2001). If a person feels they lack opportunities to perform behaviours, or they feel it's quite hard to get the information or resources they need, they are less likely to form strong intentions to perform behaviours (Vermeir & Verbeke, 2008). In consumer purchasing behaviour, perceived behavioural control reflects past

experience, as well as whether the consumer could buy the product easily (Vermeir & Verbeke, 2008). In general, when an individual has a favourable attitude toward a behaviour, the attitude is consistent with relevant norms, and the individual sees a high level of behavioural control, the individual is likely to have a strong desire to conduct the activity in the issue. Finally, if the individual has a sufficient level of actual control over their behaviour, they should be able to carry out their intentions when the opportunity arises (Ajzen, 2001; Godin, 2006).

3.3 Hypotheses development

Guided by the AIDA model and the TPB model, a testable hypothesis and research model are created. The main objective of this section is to develop a hypothesis based on previous research and a theoretical framework. The testable research model consists of five components: attitude, human image, social norm, and knowledge, which are all predicted to influence consumers' purchase intention. The research model will be presented at the end of this chapter.

3.31 Attitude

Attitude refers to the degree to which a person's opinion or appraisal of behaviour is favourable or unfavourable (Ajzen, 1985; Vermeir & Verbeke, 2008). It represents people's positive or negative evaluations of participation in a specific behaviour. In other words, people prefer to embrace behaviour that could bring them good outcomes or experiences (Fishbein & Ajzen, 2011). Individuals are more inclined to adopt a behaviour toward which they have a favourable attitude (Armitage & Conner, 2001). Manchanda et al. (2006) point out that digital display advertising has an impact on consumer recognition and brand attitude, which demonstrates the importance that having good display advertisements. Previous literature found that there is a positive association between attitude toward advertisement and attitude toward the brand (Amos et al., 2008; Silvera & Austad, 2004). In other words, good advertising can lead to good consumer attitudes towards the brand and enhance the brand's position in the minds of consumers. Moreover, Reed et al. (2012) suggest that consumers use the brands they used to show their identity to others, and likewise, they evaluate others based on their consumption behaviour and the brands of the products they use. Consumers will therefore prefer to get products from brands that have a better brand image in their minds (Reed et al., 2012). Thus, if consumers have a positive attitude towards the ad, it is likely to

generate purchase intention. The advertisement image that the brand conveys is therefore very important. Based on the preceding arguments the following hypotheses are created:

H1: *Consumers' attitudes toward the ad that has a positive effect on purchase intentions*

3.32 Human image

Under the literature review about visual and verbal factors in digital display advertising, visual and verbal elements could have an impact on consumers' attention. In the visual media understanding process and in the consumer purchase funnel model, attention refers to the choice of the individual to focus on specific items while ignoring others (Martinet, Lablack, Lew & Djeraba, 2009). According to the AIDA model, only by getting the consumer's attention will there be an opportunity for the consumer to consider whether to buy the product or not (Michaelson & Stacks, 2011). When consumers see advertisements, they initially evaluate them as a whole, and once the stimulus has been detected, they will respond by noting the object's characteristics, relevance, and value (Just & Carpenter, 1976; Barden, 2013). Barden (2013) suggests that the specific item that consumers are used to seeing, can help consumers create attention and identify new items. Previous research show that the human image, especially the human face, is a uniquely effective stimulus for attracting visual attention and identifying new items compared to other objects (Vuilleumier & Schwartz, 2001; Vuilleumier, 2000). The human image encompasses different types of characters, and this study will focus on the effect of SMIs and normal people's images on consumer purchase intentions. Moreover, Sajjacholapunt and Ball (2014) conducted that compared to the advertisements that did not contain faces, the advertisements with human faces will make viewers stay longer, and viewers will generate a higher level of consideration which leads to better memory for advertising content. The high level of consideration also helps to drive consumer purchasing decisions. Thus, human faces are likely to be a powerful means of attracting and retaining viewers' attention as well as generating purchase intention in an online advertising environment (Schouten et al., 2020). Therefore, it is hypothesized that:

H2: *Human image has a positive effect on purchase intentions*

3.33 Social norm

According to the TPB model, the subjective norm is the perceived social pressure to participate or not participate in behaviour that was impacted by normative beliefs (Fishbein & Ajzen, 2011).

Normative beliefs refer to the perceived pressure to engage in a certain behaviour and that pressure is from significant referent individuals or groups such as the person's friends, family, or can be anyone (Fishbein & Ajzen, 2011). Consumers are more likely to behave in a particular way when they are under pressure from their environment or other individuals (Rhodes & Courneya, 2003). A referent individual encourages to perform a behaviour, or the referent individual is likely to perform the behaviour by him or herself, these two situations will promote the consumer to perform the behaviour (Fishbein & Ajzen, 2011). Moreover, as social beings, the behaviour of a person is surrounded by social norms which have an impact on how we think, what we do, and a variety of other behavioural decisions (Cialdini et al., 1990; Reno et al., 1993). And previous studies also highlight the fact that the perceptions of social norms can affect behaviour, not the actual social norms (Cialdini et al., 1990; Reno et al., 1993). In other words, perceived social norms can impact the whole society and everyone's behaviour in society. This also means that perceived social norms can influence the behaviour of those around the consumer which can ultimately affect normative beliefs as well as subjective norms. According to TPB, the intention is a function of attitudes towards behaviour, subjective norms, and perceived behavioural control (Fishbein & Ajzen, 2011). As the perceived social norm can determine the subjective norm, subjective norms are expected to be positively related to purchase intention. Consequently:

H3: *Perceived Social norm has a positive effect on purchase intentions*

3.34 Knowledge

Perceived behaviour control refers to people's perceptions about their capacity to do a specific behaviour (Fishbein & Ajzen, 2011). It is assumed that perceived control is determined by the control belief (Ajzen, 2011; Fishbein & Ajzen, 2011). Control beliefs are associated with the perceived presence of factors that might help or impede behavioural performance (Fishbein & Ajzen, 2011). At the individual level, control belief is influenced by several factors such as age, gender, education, knowledge, income, emotions, etc (Ajzen, 2011; Fishbein & Ajzen, 2011). In the context of advertising, if consumers could not get enough trusted information, or if they could not evaluate the quality of the product or service, uncertainty will arise (Moorman et al., 1993). The presence of uncertainty can hinder the performance of the behaviour. As digital display advertisements cannot change the age, gender, income, intelligence, values, stereotypes, or education level of the viewer, ads can enhance the knowledge of the audience by providing useful

information. If a person gains sufficient knowledge about the behaviour from the advertisement, then it will reduce uncertainty and increases control beliefs towards specific behaviour. And according to Ajzen (2011), the control belief determines perceived behaviour control. Moreover, as to the TPB model, perceived behaviour control is expected to be positively related to purchase intention. Thus, the last hypothesis is:

H4: *Knowledge has a positive effect on purchase intentions*

3.4 Research model and Hypothesis

Figure 4. Research model
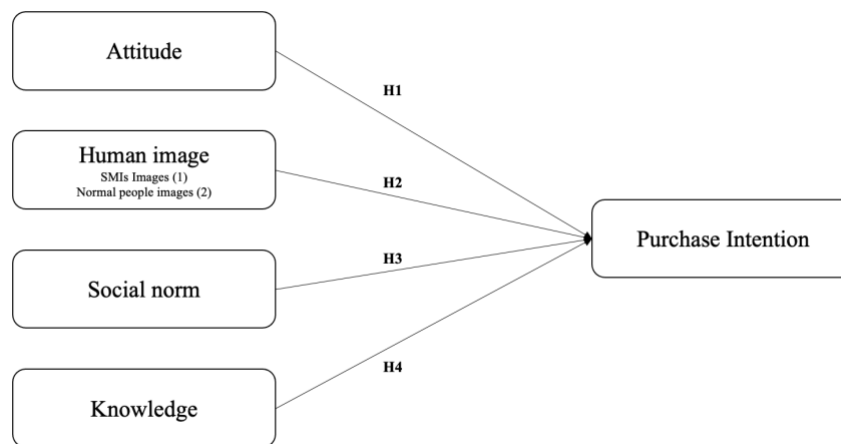
The conceptual research model is constructed based on the proposed hypothesis, as visualized in Figure 4. Since there are so many different types of human images, this study focuses on two types of human images which are SMI images and normal people's images. This study will explore the effect of human image on consumer purchase intentions and get insight into the difference between the effect of SMI images and the effect of normal people images. So, in the human image hypothesis, "1" refers to the SMI images and "2" refers to the normal people's images. According to TPB theory, attitude, subjective norm, and perceived behavioural control could affect intention towards behaviour. Based on previous literature and background factors about TPB theory, except attitude, the social norm replaces the subjective norm, and knowledge replaces the perceived behavioural control. Moreover, according to previous research about human images in digital display ads and visual and verbal factors in digital display advertising, the human image could

have an impact on consumer purchase intention. Thus, the human image was introduced into the research model. The first hypothesis (H1) suggests a positive relationship between the independent variable attitudes and the dependent variable purchase intention. The second hypothesis (H2) predicts that human image could positively influence purchase intention. The third hypothesis (H3) is similar to hypothesis one but tests the independent variable social norm. The last hypothesis (H4) predicts that knowledge could also positively impact consumer purchase intention. Thus, this research model will use these four hypotheses to identify how to use human images in digital display advertising and explore the differences in the impact of different types of human images. All theories are based on purchase funnel theory and the TPB model and will be investigated further in subsequent sections.

4. Methodology

This chapter explains the methodology used in the thesis, which includes the research paradigm, research design, survey design, sample selection and data collection, and finally ethical considerations on methodology. The study employs a quantitative approach, with primary data gathered using online surveys that contain two different questionnaires. These two questionnaires in combination constitute a controlled AB-test experiment. The aim of this section is to explain and describe the methods adopted for the current research. The section begins with an outline of the research paradigm and an overview of the research design. Then comes a more in-depth look at the survey design. This includes a detailed discussion of the questionnaire part and the experiment part of the research design, example brand, and measurements. Following that, sample selection and data collection will be explored, and ethical considerations will be present at the end of this chapter.

4.1 Post-positivism paradigm and research design

The current research is undertaken within post-positivism as a philosophy for scientifically observing and understanding reality. Developing from positivism, post-positivism philosophy is increasingly noted as a basis for contemporary empirical research activity (Clark, 1998). The positivist perspective assumes that objective reality is an existence that can be accurately perceived through human senses, and positivist researchers believe that via experiment and observation, they could gain complete knowledge (Ryan, 2006). Concepts and knowledge are seen to be the result of direct experience, which is then understood by logical deduction (Ryan, 2006). But positivism paradigm ignores the importance of subjective, social, spiritual, cultural, social, or experiential-based biases (Clark, 1998). It was the criticism and limitation of this paradigm of positivism that led to the creation of post-positivism as well as the emergence of the post-positivist paradigm. Post-positivist research argues that absolute truth is nowhere to be found; it is not about discovering the truth, but about the scientific endeavour to explore reality and represent it (Muijs, 2004). Moreover, researchers and their perceptions are not seen as completely removed from

inquiry, and personal process and participation are considered to be features of human inquiry (Clark, 1998; Ryan, 2006).

This study aims to contribute knowledge about how consumers perceive the presence of human faces in advertising and the impact of different types of human images on consumers' intention to buy smartphones. The ambition of this study is to test the set of hypotheses to understand the differences in the perceived impact on consumers of the presence of human images in digital display advertising and to test the impact of the differences on consumers' purchase intentions.

Traditional hypothesis construction involves using existing literature and theory to formulate hypotheses (Muijs, 2004). In this study, all hypotheses are guided by the existing literature and theories. Thus, the deductive method is used in the study, and all hypotheses are generated from the theory. A causal design was used for the study to measure the impact of specific changes on existing norms and assumptions. Causal effects mean when changes in the independent variable lead to changes in the dependent variable. In this study, the independent variable is the attitude, human image (both social media influencer images and normal people images) in advertising, social norm, and knowledge, while the dependent variable is the consumer's intention to purchase. Since in the post-positivism research tradition, statistics and experiments are methods of attempting to represent reality (Clark, 1998; Ryan, 2006), to explore the effects of human images, this thesis will use the experiment method combined with a statistic to represent the reality.

4.2 Sample selection and data collection

This thesis aim to gain and deepen knowledge about the effect of human faces especially SMIs in adverts on consumer purchase intention. If a person can use a smartphone or computer and access the internet, regardless of their age, education level, and country, when they got to a website or social media platforms, they could see digital display adverts. Thus, to ensure that participants understand the context of the study, one of the most important criteria for the participants is that they could use smartphones or computers to access the internet. As the questionnaire was distributed online, it was ensured that all participants have access to the internet through a mobile phone or computer. Originally, people who are not familiar with social media and SMIs should be

excluded from this study. As it is unlikely that all participants were able to identify the social media influencers used in this study. If participants could not give recognition to the social media influencer shown in the ad, then the presence of the social media influencer in the advertisement appeared the same to them as the presence of a normal person in the advertisement, both being unfamiliar people appearing in the advertisement. Despite this concern, these participants were included in this study because their data may be useful in certain hypotheses and compare the difference in the impact of identifying social media influencers on consumer purchase intentions. Moreover, to detect potential bias in the results after the data collection, participants were asked whether they recognize the social media influencer shown in the ad as control questions.

The sampling approach in this study is convenience sampling which is a nonprobability sampling approach, and the participants were not selected randomly, but rely on readily available subjects - those that are nearby or easily accessible (Van de Ven, 2007; Lune & Berg, 2017). In particular, this study implicated an online convenience sample which means everyone that came across the survey link could take part. One advantage of online convenience sampling is that participants could easily access the survey. Data collection through the network can also effectively improve the speed of data collection and reduce the time cost of data collection. Moreover, the biggest advantage of convenience sampling makes it is possible to reach many people in a short period with little effort and cost (Lune & Berg, 2017).

However, the convenience sampling approach also has disadvantages. Bias is the biggest disadvantage of convenience sampling (Etikan, Musa & Alkassim, 2016). Since the distribution of the questionnaire is not completely random, certain groups will dominate the sample and the sampling is subjective, so the convenience sample cannot be representative of the whole social group (Lune & Berg, 2017; Etikan, Musa & Alkassim, 2016). Although the survey will be distributed through a variety of channels, distribution through personal social networks will expose participants to the strong influence of the author's sociodemographic characteristics and may lead to bias. For example, younger generations especially the millennial generation are familiar with social media and are more receptive to SMIs, and many younger users will tend to think of SMIs as like their close friends and trust the products recommended by SMIs (Lou et al., 2019) Younger generations are used to receiving promotions from SMIs. Those who are unfamiliar with social

media and social media influencers, especially older people, are not used to receiving promotions from SMIs which may have a different attitude towards purchasing products recommended by SMIs. To address this, many sociodemographic factors (such as age and education level) were asked in the questionnaire and accounted for in the data analysis. In addition, as this survey requires respondents to provide personal information, respondents could deliberately conceal their true thoughts for the purpose of protecting their personal information. To prevent this bias, at the beginning of the start page, a short information content emphasized that all the personal information and answer would be collected anonymously and kept confidential, only the author has access to this information.

Despite these disadvantages, convenience sampling was chosen for this work. Firstly, the target population was too large to allow for randomisation. In addition, the work had to be completed in a very short period, which is why convenience sampling was suitable because of the high speed of data collection and the ease of access to subjects. As the study was written as part of a master's thesis and was not funded by the company, the cost-effectiveness of convenience sampling is another reason to choose the convenience sampling approach.

Data were collected for three weeks, from March 16th to April 4th. The poll was distributed via all social media platforms (Facebook, Facebook Groups, Facebook Messenger, WhatsApp, LinkedIn, Instagram Messenger) with a shareable link. This strategy was chosen since it allowed for the access of both older and younger sectors of the population. The goal was always to stick to population quotas.

4.3 Survey design

An experimental quantitative research design is adopted in this study and a two-folded study design will be used to fulfil the aim of the study. A questionnaire, using Google form create, consisted of different sections. This study will have two surveys and each survey include six sections. These six sections can be divided into three parts. The first part of the survey is conducted to explore the background information of participants about their attitude towards SMIs, attitude towards Samsung brand, attitude towards smartphones, attitude towards technology, and their use

habits of social media. The relevant sections of the first part are shown in section one and section five of the questionnaire. Section one of the questionnaire is conducted to monitor the extent to which respondents were similar and to control for standard deviation and normality, as the study was based on a convenience sample. Thus, section one focused on collecting demographic information about the respondents and asking them about their frequency of use of social media and whether they know SMIs. Consists of demographic questions including age, gender, education level, occupation, annual household income, and the degree of familiarity with and use of social media. Section five relates to the attitude of participants towards the Samsung brand, smartphones, technology, and SMIs. This section enables participants' attitudes to be investigated in preparation for data analysis.

The second part is conducted to do the experiment which consisted of three sections (section two, section three, section four). And each section will display one advertisement, in which participants were asked to answer six questions based on their thoughts after viewing the images. The questions under all advertisements are the same and include questions related to consumers' attention, interest, purchase intention, attitude, social norm, and knowledge. The detail of the experiment will be explained in the following experimental design section.

The last part is about recognition and manipulation checks. This section is to confirm whether participants identified the social media influencer images that have been used in the experiment, gave feedback on the survey, and whether they wanted to know the final results of the survey. All the measurements are presented in the following part and the survey can be found in Appendix 2.

4.3.1 Why Samsung

Samsung as a global multinational manufacturing conglomerate was founded in the year 1969 by Lee Byung-Chui who was driven by the mission of "supporting people to be their best" (Samsung, n.d.). Samsung has many businesses, the most well-known of which is its smartphone business. After 50 years of growth and expansion into a global business, Samsung has become the world's largest mobile phone manufacturer (Statista, 2021b). Since the success of its smartphone business, Samsung is an internationally recognized leading company in technology and a Top 10 global brand (Samsung, n.d.). As a leading smartphone brand manufacturer, Samsung is well known to

Europeans and has a stable smartphone market share of around 30% in Europe (Statista, 2021b). Moreover, Samsung spends a huge amount of money on digital advertising every year. Not only celebrities, but Samsung has also cooperated with many social media influencers even normal people to promote their products. Samsung's collaboration with a wide range of people makes Samsung an interesting case study for exploring knowledge about marketing communications. Recently, Samsung has just launched a new generation of phones, the Galaxy S22 series. Consumers are not yet fully aware of the new product, even some of them do not know that the new product has been launched, which ensures that they are unlikely to have any bias towards the product and thus facilitates the conduct of this study. Therefore, the new Samsung-branded Galaxy S22 series was chosen as the example product to create ads in this study.

4.3.2 Experimental design

The second part of the survey is to generate new knowledge about whether human images could impact participants' purchase intention towards Samsung smartphones. This section will provide a detailed explanation of the experiment and the designed stimuli. The manipulated advertisements were created by the authors themselves and all of them are about the latest generation of Samsung Galaxy 22 series phones. Since the aim of this experiment was to test the impact of the presence of a human image, and consumers' reactions and attitudes to ads can change depending on the platform on which ads are displayed, all participants were not informed about the advertisements posted on a specific website or social media platform account.

The objective of the current study is to examine how human images in advertisements influence consumers' purchase intention toward smartphones. Moreover, this study hopes to explore not only the impact of human images on consumer intentions but also explore the differences in the impact of social media influencer images and normal people images on consumer intentions. According to previous research, human faces are likely to be a powerful means of attracting and retaining viewers' attention in an online advertising environment (Schouten et al., 2020; Xiao & Ding, 2014). Therefore, this experiment chose to place the human face as the main factor in the advertisement to test the effect of the human image on consumer intention.

To achieve the study objectives, six different advertisements for Samsung Galaxy S22 series phones were created. The six advertising images are based on three Samsung phone posters which can be divided into three groups, each group contains two advertising images with the same background. For each group, both ads have the same dimensions, the same caption, and the same background image. To test the impact of social media influencers on consumer intentions, the first group of ads differed in whether included images of SMIs. For the images of SMIs, since this research is about mobile phone products, Mkbhd, an influencer focusing on technology products with over 10 million followers on several different social media platforms, was selected. The second group of ads was designed to explore the differences in the effect of SMI images and random people images on consumer purchase intentions, so the ads differ in that one contains images of SMI and the other one contains images of random people. Regards to the images of random people, as the SMIs were male, female images were chosen to explore whether the gender of the characters in the advertisement would have a different effect on participants. To avoid disputes, a random AI-generated image was downloaded from the Generated photos website (the image is free to use for educational research purposes). To explore if the image of random people would have an effect on consumer purchase intention, the difference in the third group of ads was whether the image of ordinary people was included. Three groups of ads are shown in Appendix 1. The six ads are divided into two ranges, each containing three different ad images.

Two questionnaires (control group questionnaire and treatment group questionnaire) are included in this survey, each containing the same questions, the difference is that the two questionnaires show images of advertisements from different ranges. A start page for the survey was created via the google app script. Each participant was randomly assigned to take the survey on one of two questionnaires with a random probability of 50% on control group questionnaire, and 50% on treatment group questionnaire. Participants were asked to answer all the mandatory questions and state their degree based on their thoughts after viewing the images of the advert. By comparing the data from the participants' answers to the two questionnaires, it is possible to investigate the effects of manipulation on participants who are exposed to different advertisements. Before the official launch of the survey, a small pre-test was conducted in which ten random consumers were invited to see if all the ad images and questions were clear and understandable. Based on the opinions of

the participants in the pre-test, small adjustments were changed before the survey was published online, including phrasing, grammar, the placement of the caption, and the size of human images.

4.3.3 Measurements

The five constructs of interest in this study are all measures on Likert scales. All 38 - item questionnaire was elaborated based on the TPB model as well as the AIDA model (Fishbein & Ajzen, 1980; Michaelson & Stacks, 2011). All factors are included in the questionnaire in order to explore the effect of the human image in the ad. Guerrero (1996) argues that the number of questions in the questionnaire was related to the credibility of the responses, with fewer questions obtaining reliable information from the same participants. Therefore, both questionnaires used in this survey were 38 questions. The exact number of questions can be seen in Table 1.

Table 1:

Construct	No. of Items	Sources
Attitude	3	Sparks et al. (1995) and Huang (2018)
Human image	0	
Social norm	3	Chetioui, Benlafqih, and Lebdaoui (2020)
Knowledge	3	Sparks et al. (1995)
Purchase intention	3	Huang (2018)

Attitude: The operationalisation of the dependent variable 'attitude' includes attitude towards ads, Samsung brand, smartphones, technology, and SMIs. The seven-point Likert scale (1= strongly disagree to 7= strongly agree) is used to measure the participant's attitude. All questions related to 'attitude' are developed from the previous study by Sparks et al. (1995) and Huang (2018).

Human image: The questionnaires did not include questions about the influence of human images on purchase intentions since the results of the two questionnaires were used to compare the influence of human images on consumer purchase intentions.

Social Norm: Social norm measurement is developed from the previous study done by Chetioui, Benlafqih, and Lebdaoui (2020) operationalized a seven-point Likert scale (1= strongly disagree to 7= strongly agree) to measure perceived knowledge of Ads and SMIs.

Knowledge: Knowledge is based on the Sparks et al. (1995) scale which is a five-item scale measured on a five-point Likert scale. To ensure the coherence of the questions as well as to streamline them, this study was adjusted to a seven-point Likert scale and choose only two items.

Purchase intention toward the Smartphone: The purchase intention toward the smartphone is measured using a seven-point Likert scale (1= strongly disagree to 7= strongly agree) based on a previous study done by Huang (2018).

4.4 Ethical considerations

To ensure ethical standards, ethical concerns were made throughout the study. On the start page of the survey, informed consent was provided to all participants in the experimental survey, which is a requirement for agreeing to begin the survey. The informed consent describes the purpose of the study as well as how anonymity and confidentiality will be maintained. It was also mentioned that all data would be kept confidential. The data will be used exclusively to answer the research question, and no personal information will be shared with third parties. Only question number 36 may collect sensitive personal data, in which participants are asked if they would like to leave their email address to receive short results of the study. However, this question is not mandatory, and participants can simply skip this question. Question number 35 on whether participants have questions about the survey can also be skipped. In addition to the above two questions, all remaining questions with an asterisk (*) in the survey are mandatory that all participants need to answer and cannot skip. The purpose of this is to avoid missing data that could make data unavailable and cause problems for analysis. Pallant (2016) points out the pairing deletion in multiple regression will exclude cases of specific analysis and induction, which processes data by replacing missing data with average values, is not considered a substitute for real answers, and the results may tend to look more refined. Therefore, there may be a risk that some cases will be excluded when the analysis is run, and the results may be reported incorrectly due to the small

number of items on the scale. Finally, the survey could be cancelled at any time, participants were told that they could drop out of the survey at any time. Therefore, if any question makes the participant feel uncomfortable or unsuitable to answer, the participant has the option to cancel the survey. On the start page of the survey, participants were informed of all these ethical criteria. If they agree, they can press 'start experiment' to start the actual survey.

5. Result and analysis

In this chapter, the quantitative analysis and the results of the experiment will be presented. The study aims to provide insight into how human image usage impacts the purchase intention of consumers. Based on the survey result and combining the AIDA model with TPB theory. This section will use the IBM SPSS Statistics program to analyze all the data and thereafter present all the experiment results. This will provide insight into the impact of human images in ads as well as the difference between SMI images and normal human images. The first section sets out the analyze the descriptive data, followed by multiple analyses to test the control variables, AIDA factors, and hypothesis. The last section explores the result of the experiment and compares the purchase intention mean values among all the stimuli.

5.1 Descriptive analysis

In order to examine and analyse the answers to the survey, different analyses appropriate to the different variables were carried out. The first step was a descriptive analysis, which explored the means and standard deviations between the different variables. After the data cleaning, 283 valid responses remained, of these, 141 respondents answered the questionnaire for the control group and the remaining 142 respondents answered the questionnaire for the treatment group. The gender composition of the respondents was as follows, with a majority of 51.6% female, 46,6% male, and 1.8% non-conforming. The mean age of respondents is 28.42 years (SD = 6.744), highly skewed, with the lowest age of 16 years and the highest age of 66 years old. The sample trend to have a good academic background, 62.9% of the respondents had already obtained a bachelor's degree and 20.5% of the respondents have obtained a master's degree. 57.7% of the respondents are currently in school, 40.6% of respondents are currently working, and the rest respondents are unemployed. The distribution of annual household income was relatively skewed to the right which is shown in Figure 5. The majority of respondents have a high level of social media use, 280 respondents will use social media every day, 2 respondents use social media twice a week and only 1 respondent uses social media once a month. And the mean value of time respondents spend on social media every day is 2.08 hours, 50.2% of respondents will spend two to three hours on

social media every day. Regarding which type of phone respondents use, 45.9% of respondents use Android smartphones, 52.7% of respondents use Apple smartphones, and the rest 1.4% of respondents use other types of smartphones. Statistics on the following number of SMIs show that only 5 respondents did not follow any SMIs, and the majority of respondents follow 6-10 SMIs on social media. A demographic profile of the sample is presented below.

Figure 5. Annual Household Income Before Taxes
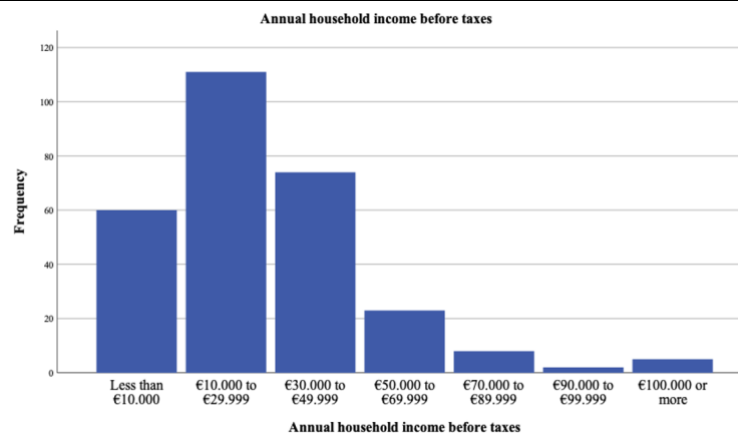
Table 2. Demographic profile of the sample

	Frequency	Percentage
Gender		
Female	146	51.6%
Male	132	46.6%
Non-conforming	5	1.8%
Age		
Under 25	119	42%
25-30	63	22.3%
31-35	69	24.4%
Over 35	32	11.3%
Education Level		
High School or less	44	15.5%
Bachelor's degree	178	62.9%

Master's degree	58	20.5%
Doctorate degree	3	1.1%
Occupation		
Student	163	57.6%
Working	115	40.6%
Unemployed	5	1.8%
Annual household income		
Less than 10.000	60	21.2%
€10.000 to €29.999	111	39.2%
€30.000 to €49.999	74	26.1%
€50.000 to €69.999	23	8.1%
€70.000 to €89.999	8	2.8%
€90.000 to €99.999	2	0.7%
€100.000 or more	5	1.8%
The frequency of visiting social media		
Every day	280	98.9%
Twice a week	2	0.7%
Once a month	1	0.4%
Time spent on social media every day		
Less than 1 hour	17	6%
1 hour	44	15.5%
2-3 hours	142	50.2%
3-4 hours	60	21.2%
More than 5 hours	20	7.1%
Smartphone type		
Android	130	45.9%
Apple	149	52.7%
Other	4	1.4%
The number of how many SMIs followed		
NO	5	1.8%
1-5	69	24.4%

6-10	139	49.1%
11-20 hours	39	13.8%
More than 20	31	11%

Regarding the attitude toward smartphones and technology. The mean value of attitude toward smartphones is 6.31, and the mean value of attitude toward technology is 6.00 which shows the positive attitude that respondents have towards smartphones and technology. Regarding the attitude toward the Samsung brand, the mean value is 4.43. Regarding respondents' satisfaction with their current skills in using mobile phones, the mean value is 6.1. When looking at the perception of SMIs, the mean value is 9.98. All values are shown in Table 3.

Table 3.

Variable	Mean	SD
Attitude-Smartphone	6.31	0.725
Attitude-Technology	6.00	0.853
Attitude-Samsung	4.43	1.360
Phone use skill	6.10	0.715
Perception-SMIs	9.98	2.357

(N=283)

For the control group and treatment group, the independent variable 'attitude' is negatively skewed (-1.054) which indicates clustering of scores at the high end. A positive kurtosis value indicates that distribution is peaked. 'attitude' has a positive kurtosis value (2.387) which indicates the distribution is peaked. Regarding the mean, the 5% trimmed mean and the original mean are very similar (13.06 and 13.25). Given this, it can be shown that the values are not too different from the remaining distribution and the mean is not significantly affected by the extreme data. Thus, all data will be retained. Similarly, 'social norm' and 'knowledge' are also negatively skewed, 'social norm' is approximately symmetric (-0.33) with a positive kurtosis of 0.612, and 'knowledge' is

highly skewed (-1.842) with a positive kurtosis of 5.429. For both 'social norm' and 'knowledge', all data will be kept as the 5% trimmed mean and the original mean are very similar ('social norm': 5% trimmed mean 10.70, original mean 10.65; 'knowledge': 5% trimmed mean 14.63, original mean 13.34). The dependent variable 'purchase intention' is also negatively skewed (-1.482) and has a positive kurtosis of 3.108. As the 5% trimmed mean and the original mean are very similar (5% trimmed mean 13.52, original mean 13.27), all data will be retained.

For the treatment group, all three independent variables are negatively skewed, and the skewness value of 'attitude', 'social norm', and 'knowledge' are -1.185, -.394, and -1.331. Same as the control group, all three variables have a positive kurtosis value ('attitude':1.772, 'social norm': 0.103, 'knowledge': 2.171). Moreover, for all independent variables, as the 5% trimmed mean and the original mean are very similar, all the data will be kept ('attitude': 5% trimmed mean 13.08, original mean 12.86; 'social norm': 5% trimmed mean 10.42, original mean 10.37; 'knowledge': 5% trimmed mean 14.37, original mean 14.15). The dependent variable 'purchase intention' is also negatively skewed (-1.341) and has a positive kurtosis of 1.289. Similarly, the 5% trimmed mean and the original mean are very similar (5% trimmed mean 13.17, original mean 12.90), and all the data about purchase intention will be kept. All means, standard deviations, and correlation are shown in Table 4.

Table 4. Descriptive Results and Correlation Matrix
Control group

Variable	Mean	SD	Scale Range	1	2	3
1 Attitude	13.06	2.69	1-7			
2 Social norm	10.65	3.25	1-7	0.650		
3 Knowledge	14.34	2.80	1-7	0.625	0.468	
4 Purchase intention	13.27	2.90	1-7	0.752	0.758	0.612

(N=141)

Treatment group

Variable	Mean	SD	Scale Range	1	2	3
1 Attitude	12.86	3.10	1-7			
2 Social norm	10.37	3.16	1-7	0.750		
3 Knowledge	14.15	2.82	1-7	0.690	0.553	
4 Purchase intention	12.90	3.37	1-7	0.792	0.715	0.637

(N=142)

5.2 Control variables and AIDA factors testing

To explore the effect of control variables as well as AIDA factors on the dependent variable, a regression analysis is conducted. With the help of multiple regression, it is possible to presume a causal relationship between the dependent and independent variables. And the result of the regression analysis will show which independent variable is the best "predictor". The first block contains the control variables which include gender, phone type, attitude towards smartphones, attitude towards Samsung, attitude towards technology, and skills for using the smartphone. The second block pulls in the AIDA factors which are attention and interest. The third block adds the three main predictors which are 'attitude', 'social norm', and 'knowledge' to the regression model and the results will be presented in the following hypotheses testing section.

All data must be checked before running a regression analysis to ensure that the regression analysis is suitable, and that the data fulfils all assumptions. Firstly, Pallant (2020) points out that the dependent variable must be measured on a continuous scale, and the independent variables must be categorical or continuous. Although it is widely discussed whether the Likert scale is an ordinal or continuous variable. In this study, the Likert scale is treated as a continuous variable. By recoding the non-conforming gender and other types of smartphones to system missing, gender and using phone types these two variables are changed to dummy variables. Except for these two dummy variables, the rest variables are measured by the seven-point Likert scale. Thus, all

variables can be taken into regression analysis. Secondly, residuals must have normality, linearity, independence, and homoscedasticity (Pallant, 2020). Through normal p-polt can inspect whether the residuals are normally distributed or not and can check the linear relationship between the dependent relationship and the independent variable. Moreover, through normal p-polt can also inspect whether the data show homoscedasticity. After testing, the data from this study met the above requirements. Thirdly, before the regression analysis, multicollinearity also needs to be checked, to ensure that the independent variables cannot be highly similar to each other. A correlation analysis will be conducted among all the continuous independent variables. About the result, on every model, all values are below r=.9 which indicates that the independent variables are not highly correlated (Pallant, 2020). Additionally, the VIF ('Variance Inflation Factor') and Tolerance value can help control multicollinearity, if the VIF values are greater than 10 and Tolerance less than 0.1 indicates multicollinearity (Pallant, 2020). All values meet the assumptions, hence there is no multicollinearity in this study. Finally, the sample size needs to be more than 50+8M (M=independent variable numbers) and should not include any significant outliers or any influential points (Pallant, 2020). The regression analysis did have 8 independent variables, and the minimum sample size for 8 independent variables is 114. There were five respondents who did not identify their gender and four respondents who used the rest of the phone types. Because of the conversion to a dummy variable excluding these nine respondents, the valid sample size is 272 which is still much larger than the minimum sample size request. As previously mentioned, all the data will be kept as there are no significant outliers or any influential points that could significantly influence the mean. In summary, the data from this study can be used for regression analysis. For a simpler and clear overview, the results are shown in Table 5 below.

Table 5. Coefficients results for control variables and AIDA factors

	Unstandardized Coefficients Beta	Standardized Coefficients Beta	T	Sig
Model 1 $\triangle R^2 = .185, p < .000$				
Gender	.714	.113	1.999	.047
Phone Type	-.334	-.053	-.992	.357

Attitude-Smartphone	.590		.136		2.237	.026
Attitude-Samsung	.447		.193		3.182	.002
Attitude-Technology	.887		.240		3.578	.000
Skill-Phone use	-.901		-.204		3.229	.001

Model 2 $\triangle$ R^2= .694, *p <.000*

Gender	.335		.053		1.520	.130
Phone Type	.116		.018		.517	.606
Attitude-Smartphone	.052		.012		.314	.753
Attitude-Samsung	.148		.064		1.689	.092
Attitude-Technology	.020		.005		.125	.900
Skill-Phone use	-.377		-.085		-2.174	.031
Attention	.331		.319		4.763	.000
Interest	.537		.513		7.837	.000

In the first model, the regression model explains 18.5% of the variance in the dependent variable, and the result is also significant (p < 0.00) with an adjusted R Square of 0.167. The regression result shows that attitude toward technology makes the biggest contribution to predicting the 'purchase intention', with a beta coefficient of β = 0.240 (t=3.578, p<0.00). The sig value for the phone type is more than 0.05. Thus, using phone type does not make a significant and unique contribution to predicting consumers' purchase intentions. The other five independent variables contribute to predicting consumer purchase intention. Since the model R Square value is less than 0.3, which shows all these five independent variables have a none or very weak contribution to predicting consumer purchase intention (Moore & Kirkland, 2007).

In the second model, 'attention' and 'interest' from the AIDA model are taken into the regression model. The new model explains 69.4% of the variance in the dependent variable, and the result is also significant (p < 0.00) with an adjusted R Square of 0.685. The regression result shows that 'interest' makes the biggest contribution to predicting the 'purchase intention', with a beta coefficient of β = 0.513 (t=7.837, p<0.00). And 'attention' has fewer contributions to predicting

the 'purchase intention', with a beta coefficient of $\beta = 0.319$ (t=4.763, p<0.00). The skill of using the smartphone is the one that makes the least contribution, with a beta coefficient of $\beta = -0.085$ (t=-2.174, p<0.031). The sig value for the rest independent variables is more than 0.05, which means all other independent variables turn out to be non-significant. Thus, when taking AIDA factors to the regression model, gender, phone type, attitude towards smartphones, attitude towards Samsung, and attitude towards technology, these six independent variables do not make a significant and unique contribution to predicting consumers' purchase intentions.

5.3 Hypotheses testing

There are four hypotheses in this study, three of them which are about 'attitude', 'social norm', and 'knowledge' can be answered by regression analysis, and the remaining one hypothesis about "human image" needs to be answered by comparing the results of the control group with treatment group which will show in the below section. Hypothesis 1 states that higher levels of perceived attitude will generate significantly more purchase intention toward smartphones. Similarly, hypothesis 3 states that higher levels of the social norm will generate significantly more purchase intention toward smartphones, likewise, hypothesis 4 states that higher levels of the knowledge will generate significantly more purchase intention toward smartphones. Therefore, to know how well the independent variables predict the dependent variable, a regression analysis is conducted. With the help of multiple regression, it is possible to presume a causal relationship between the dependent and independent variables. And the result of the regression analysis will show which independent variable is the best "predictor". Since the research model aims to investigate causal relationships, multiple regression analysis is the best approach.

By adding 'attitude', 'social norm', and 'knowledge' to the third block, 'purchase intention' was regressed onto all the independent variables. According to the regression result, the overall model explains 77.1% of the variance in the dependent variable, and the result is significant ($p < 0.00$) with an adjusted R Square of 0.762. When the sample size is small, the adjusted R square is the most suitable and optimistic value to provide (Pallant, 2020). The scatterplot and normal probability plot showing the distribution of the residuals can be found in Appendix 3. Regarding the hypothesis support, the regression result shows that 'social norm' makes the biggest

contribution to predicting the 'purchase intention', with a beta coefficient of $\beta = 0.277$ (t=6.436, p<0.00). And 'attitude' has fewer contributions to predicting the 'purchase intention', with a beta coefficient of $\beta = 0.171$ (t=3.109, p<0.002). However, the p-value for 'knowledge' is more than 0.05 which means 'knowledge' turned out to be non-significant. Thus, based on the result from the regression analysis, hypotheses one and three are supported, but hypothesis four is not supported. Among three main independent variables, 'social norm' makes the strongest unique contribution to explaining the model. All results of the new model are shown in Table 6 below

Table 6. Coefficients result for the final model

	Unstandardized Coefficients Beta	Standardized Coefficients Beta	T	Sig
$\triangle R^2= .771, p <.000$				
Gender	.436	.069	2.259	.025
Phone Type	-.176	-.028	-.891	.374
Attitude-Smartphone	-.091	-.021	-.628	.531
Attitude-Samsung	.016	.007	.206	.837
Attitude-Technology	.021	.006	.150	.881
Skill-Phone use	-.198	-.045	-1.299	.195
Attention	.191	.185	2.983	.003
Interest	.308	.294	4.728	.000
Attitude	.186	.171	3.109	.002
Social Norm	.273	.277	6.436	.000
Knowledge	.068	.061	1.443	.150

5.4 Experimental stimuli testing

As in line with the aim of the thesis, this section aims to explore the efficacy of human image in advertisements can positively or negatively influence consumers' purchase intention, and do the

images of SMIs and ordinary or normal people have a different impact on consumers? To answer these two questions, all respondents were divided into two groups according to whether they identified the image of the SMI used in the survey or not. In the control group, 104 respondents did not identify the image of the SMI and 37 respondents identified the SMI; in the treatment group, 106 respondents did not identify the image of the SMI and 36 respondents identified the social media influencer. Since for respondents who did not identify with the SMI, the image of the SMI could be considered as an ordinary person. Thus, for respondents who did not recognise the SMIs, the images of the SMI image and the AI-generated human image were almost the same - images of unrecognisable characters. Moreover, by analysing data from respondents who identified the SMI image that was used in the advertisement, it is possible to explore the differences in influence between social media influencers and ordinary personas. By applying a bivariate analysis in SPSS, it is possible to compare the mean values of variables in different conditions.

In the first group of advertisements (Shown in Appendix 1), the control group's advertisement did not include human images, while the treatment group's advertisement included an SMI image. The results of respondents who did not identify SMIs showed that the respondents exposed to the ad with the human image have a mean value toward the 'purchase intention' of 4.61. While the respondents exposed to the ad without the human image have a mean value toward the 'purchase intention' of 3.32. For respondents who can recognise SMIs, the mean value of the ad with an SMI image is 5.13 and the mean value of the ad without any human images is 3.89. This shows that regardless of whether respondents identify SMIs or not, ads that include images of people can lead to a higher mean values about consumer purchase intention than ads that do not include images of people.

Similarly, the difference between the two ads in the third group of advertisements (Shown in Appendix 1) is also whether the human image is included or not. The control group's ad includes a normal human image and the ad in the treatment group did not include any human images. The results of respondents who did not identify social media influencers also show that the mean value (4.56) toward the 'purchase intention' from the ad with the human image is higher than the mean value (3.60) from the ad without the human image. For respondents who can recognise SMIs, the mean value of the ad with a normal human image is 4.56 and the mean value of the ad without a

normal human image is 3.50. The above results also demonstrate the positive impact of human image on motivating respondents to make a purchase intention.

In the second group of advertisements (Shown in Appendix 1), the control group's advertisement included the SMI image, while the treatment group's advertisement included an AI-generated image of people. For respondents who can recognize the SMI in this study, the results showed that the respondents exposed to the ad with the SMI image have a mean value toward the 'purchase intention' of 5.27. While the respondents exposed to the ad with the AI-generated human image have a mean value toward the 'purchase intention' of 4.38. Therefore, the result indicates that the respondents that saw the advertisement with the SMI image will generate more purchase intention toward the product compared to the ones that were exposed to the advertisement with the AI-generated human image. Hypothesis 2 states that the human image has a positive effect on purchase intentions, based on the results from the experiment, hypothesis 2 is supported. All the results are presented in Table 7 below.

Table 7. Descriptive results.

Respondents who cannot recognize the SMI

Purchase intention	Range	*Ads with human image*	*Ads without human image*
		Mean	Mean
The first group ads	1-7	4.61	3.32
The third group ads	1-7	4.56	3.60

Respondents who can recognize the SMI

Purchase intention	Range	*Ads with human image*	*Ads without human image*
		Mean	Mean
The first group ads	1-7	5.13	3.89
The third group ads	1-7	4.56	3.50
Purchase intention	Range	*Ads with SMI image*	*Ads with AI human image*
		Mean	Mean
The second group ads	1-7	5.27	4.38

Lastly, the human image has an impact on attention, interest, attitude, social norm, and knowledge. In both the control group and the treatment group, for respondents who cannot recognize SMIs, the mean values of all independent variables for ads that include human images are higher than the mean values for ads that do not include human images (All data was shown in Appendix 3). Moreover, in the second group of advertisements (Shown in Appendix 1), the control group advertisement used an image of a male and the treatment group used an image of a female. Thus, it is possible to explore the effect of demographic variables like occupation, and education, on consumer purchase intention. Through analysis of the data from respondents who cannot recognize the SMI in this study. The mean value of male respondents toward the ad with a male image is 5.02, while the mean value is 4.91 when male respondents saw the ad with a female image. For female respondents, when they were exposed to advertisements containing an image of a male the mean value is 4.71, and when they were exposed to the ad with a female image the mean value is 4.50. The differences turn out to be small. Through the compare means analysis between purchase intention and occupation, the result shows the differences among different occupation statuses also turn out to be small, thus there is no significant relationship between occupation and purchase intention. The same situation also happens when comparing the means between education level and purchase intention.

In summary, the results of all three groups above demonstrate the positive impact of human images on purchase intention which means hypothesis 2 is supported. The respondents that saw the advertisement with the human image will generate more purchase intention toward the product compared to the ones that were exposed to the advertisement without the human image included. Moreover, for the person who can recognise the SMI, compare to normal people, advertisements with SMI images could have a greater impact on consumers' purchase intentions than those that do not. All results of the hypothesis test and the experimental stimulus test will be discussed further in the next chapter.

6. Discussion and conclusion

This chapter first discusses the result of the previous chapter and what they mean for the hypotheses as well as a further discussion of the results and findings of the experiment. This section will discuss what the results mean in terms of the research questions, the issues observed, and how it relates to the theoretical framework and previous literature. Then comes with conclusion section. This section will answer the research question and summarise the results of the study. Following that, implications, limitations, and suggestions for future research will be present.

6.1 Interpretation

The descriptive statistics show that all respondents in fact have a positive attitude toward the smartphone, technology, skills to use smartphones, and SMIs. The mean value of their attitude toward smartphones and technology are 6.31 and 6.00 respectively, with a minimum value of 1 and a maximum of 7, which indicates the attitude amongst the respondents. And the test on respondents' skills in using mobile phones also shows that respondents are satisfied with their current skills in using mobile phones with a mean value of 6.10. Moreover, more than 98% of respondents use social media on a daily basis and follow more than one SMI, of these respondents, more than 73% follow more than six SMIs. This illustrates that the majority of respondents to this survey are familiar with SMIs. In terms of respondents' perception of SMIs, the mean value is 9.98 with a minimum value of 2 and a maximum of 14. This result shows that respondents trust SMIs and are influenced by SMIs when making purchase decisions. But the attitude of respondents toward the Samsung brand is more neutral with a mean value of 4.43. This indicates that there is no clear preference or dislikes for the Samsung brand, and the neutrality of the survey results is beneficial to its accuracy.

The first block of the hierarchical regression analysis includes gender, phone type, attitude towards smartphones, attitude towards Samsung, attitude towards technology, and skills for using the smartphone. The regression model only explains 18.5% of the variance in intention to buy Samsung smartphones, which shows this model has a very weak contribution to predicting consumer purchase intention (Moore & Kirkland, 2007). However, through add 'attention' and

'interest' from the AIDA model to the regression model, the new regression model could explain 69.4% of the variance in consumer purchase intention. Compare to the first model only explains 18.5% of the variance, adding 'attention' and 'interest' to the model improve the regression model significantly. 'Attention', 'interest', and 'skills for using the smartphone' turn out to be significant. In the new model, 'interest' makes the strongest contribution to predicting the 'purchase intention'; and 'attention' makes the second-place contribution; 'skills for using the smartphone' makes the minimal contribution. The results are consistent with the previous research by Ghirvu (2013), which confirmed that high levels of attention or awareness and interest could positively impact purchase intentions. Moreover, when taking 'attention', 'interest', 'attitude', 'social norm', and 'knowledge' into the same regression model. The regression result shows that 'interest' still makes the strongest unique contribution to predicting 'purchase intention', with a beta coefficient of $\beta = 0.294$. This shows that interest levels have a greater impact on consumers' purchase intentions. How to increase consumer interest in the future is a question that advertisers should consider.

6.11 Hypotheses discussion

To answer all hypotheses, the third block of the hierarchical regression analysis was used. The third model explains 77.1% of the variances in consumer purchase intention. Compare to the second model, adding factors related to the TPB model improves the regression model further. The first hypothesis state that there is a positive significant relationship between the dependent variable 'purchase intention' and the independent variable 'attitude'. Among the three main independent variables, the regression result indicates that 'attitude' is the second-place contribution to predicting the dependent variable, with a beta coefficient of $\beta = 0.171$. It has been discussed by Ajzen (2011) that 'attitude' is an important predictor of behaviour. Moreover, Armitage and Conner (2001) stated that the more positive the attitude towards the behaviour, the stronger the individual's willingness to perform the behaviour. Thus, the results of the final regression model are consistent with previous research done by Armitage and Conner. In line with the hypotheses, 'attitude' makes a unique contribution to predicting 'purchase intention'.

Regarding the second hypothesis, the results of the experiment provide exploratory results to support hypothesis 2. For respondents who did not recognise the SMI used in this experiment, in the first group of ads, the mean purchase intention value of respondents towards the advertisement

with the human image is 4.61. In comparison to the advertisement without the human image, the mean difference is -1.29. Similarly, in the third group of ads, the ad that includes images of human receive a higher mean of purchase intention, and the mean difference between the ad with the human image and the ad without the human image is -0.96. For respondents who can recognize the SMI, in the first group of ads, the mean purchase intention value of the ads containing SMI images is 5.13. In comparison, the mean value of purchase intention for the ad that does not include an image of SMI is 3.89, with a mean difference of -1.24. Likewise, in the third group of ads, the mean value of purchase intention for ads that include AI-generated personas is 4.56, while the value without personas is 3.50, a mean difference of -1.06. In both the control group and the treatment group, all result above entails that whether lirespondents recognise the human image used in the advert, human images could help them generate a higher level of purchase intention. As the second hypothesis state that human image has a positive effect on purchase intentions, which means hypothesis 2 is also supported. These results are consistent with research by Xiao and Ding (2014), which found that if an image of a person in the advertisement matches viewer preferences, the human image can not only attract viewers' attention but also positively affect viewers' response to advertisements.

Regarding the third hypothesis, the perceived 'social norm' has a positive effect on 'purchase intention'. According to the regression analysis, the contribution of 'social norm' makes the strongest contribution to predicting the 'purchase intention', with a beta coefficient of $\beta = 0.277$. The result indicates that 'social norm' could positively affect 'purchase intention'. And this result is consistent with research from Belgiawan et al. (2017) which found that social norms are an important predictor of purchase behaviour and could significantly correlate with purchase intention.

The fourth hypothesis stat between the that there is a positive relationship between 'knowledge' and 'purchase intention'. Compared to the other two variables, 'knowledge' is the only one that is non-significant. Suki (2016) found that knowledge is the most significant determinant of consumer purchase intention, and knowledge about the product positively relates to purchasing intention. But according to the regression result, 'knowledge' did not contribute to predicting the dependent variable, with a beta coefficient of $\beta = 0.061$, p=0.150. Since 'knowledge' failed to provide a

significant contribution to this study, hypothesis 4 in this study is rejected. This may be consistent with adding factors from the AIDA model as the independent variables to the regression model.

Overall, the finding from the regression analysis indicates that 'attitude' and 'social norm' are all positively related to 'purchase intention'. Compared to the other main independent variables, 'social norm' made the strongest contribution to predicting the dependent variable. Except for Hypothesis4 is rejected, Hypothesis 1, Hypothesis 2, and Hypothesis 3 of this study are supported.

6.12 Experiment result discussion

Based on the result of the experiment, it is possible to analyze the differences between the effect of SMIs and ordinary people by analyzing the data of respondents who recognized social media influencers. In the second group of ads, the mean value of purchase intention for the advertisement that includes the SMI image is 5.27, and the mean value of the ad that includes an AI-generated normal people image is 4.38, the mean difference is -0.89. For the same respondents in the control group, the mean value of purchase intention when they saw an ad containing SMI images is 5.27, while the mean value of purchase intention when they saw an ad containing the normal people image is 4.56. Similarly, in the treatment group, the mean value of purchase intention when seeing an ad containing SMI is 4.61, while the mean value of purchase intention when seeing an ad containing a normal person is 4.38. In sum, in both the control group and the treatment group, all the above result shows that advertising with the SMI image leads to higher levels of purchase intention. Compare to normal people's images, SMI images can have a greater impact on consumers' purchase intention. The result of the experiment is consistent with previous research done by Lou et al. (2019), which stated that consumers trust SMIs almost as they trust their friends and they are willing to buy products that are recommended by SMIs. Therefore, compared to normal people, SMIs could have a better impact on consumers' purchase intention.

From the perspective of the research model in this thesis, consumers' purchase intention is influenced by 'attitude', 'human image', 'social norm', and 'knowledge'. According to the correlation analysis, in both the control group and the treatment group, there is a positive correlation between attitude, social norms, and knowledge. Moreover, in the control group, except for the correlation between social norm and knowledge, the rest correlation between independent

variables are large correlation. And in the treatment group, all correlations are large correlation. This result is consistent with the original TPB model in which all dependent variables affect each other (Ajzen, 2011). Thus, the three independent variables of attention, social norm, and knowledge can influence each other, and all three independent variables have a positive relationship with each other.

In addition, by checking the mean value of all variables as well as attention and interest, it was found that the mean value of the advertisements with a human image was higher than the mean of those that did not contain a human image. In the control group, the first ad does not include the human image, and the other two ads include the human image. For respondents who did not recognize SMIs, towards the first ad, the mean value of 'attention', 'interest', 'attitude', 'social norm', and 'knowledge' are 3.97, 3.71, 3.17, 2.49, and 3.5. While, towards the second ad, all mean values are 5.19, 4.88, 4.73, 3.95, and 5.04, which are all higher than the mean value for the first ad. Likewise, in the third ad, all the mean values are 5.34, 5.14, 4.86, 4.06, and 5.72 which are also higher than the mean value for the first ad. The same result is found in the treatment group data, where the third ad without a human image has a lower mean value than the two ads with a human image. Moreover, by checking the correlation between 'attention' and 'interest' with other independent factors, all relationships are largely correlated. Based on the experimental result from both the control group and the treatment group, human images have a positive impact on other independent variables in the research model as well as attention and interest. The above results are in line with previous studies (Vuilleumier &Schwartz, 2001; Vuilleumier, 2000; Schouten et al., 2020) on function of human images in ads.

Overall, the findings from the experiment indicate that all the respondents will generate a high level of purchase intention when they are exposed to the ad with human images. When the sample is divided by whether they recognize the SMI that shows in the ad, for respondents who recognize the SMI, the presence of an SMI in an advertisement creates a higher purchase intention than the presence of a normal people in an advertisement. In addition, there is a positive influence relationship among attitudes, human image, social norms, and knowledge. And human images in advertising can also influence consumers' attention and interest. Ultimately, these results

demonstrate evidence of combining the TPB model with the AIDA model, as well as the positive impact on consumers of the use of human images in advertising.

6.2 Conclusion

This study aimed to contribute new knowledge about how human images impact consumers' purchase intention after exposure to advertisements, besides, to contribute knowledge about the impact of using SMI images and normal people images in advertisements. A new research model was proposed based on the AIDA and TPB models, and the respondent's purchase intention was defined and analyzed using the research model. Moreover, by using an experimental approach, this study was able to contribute to a better understanding and new understanding of human images, SMI images, and normal people images affect consumers' purchase intention. The study was set out to answer the following research question: ***How to use human images in digital display advertising to increase the effectiveness of advertising and the purchase intention of consumers?***

The result of the regression analysis provides evidence that attention, interest, attitude, and social norms are positively correlated with consumers' purchase intention; human images can positively influence all the above factors, including the consumer's purchase intention. Among all significant independent variables, 'interest' is the best predictor of purchase intention; among the three main predictors, 'social norm' is the best predictor. Additionally, by exploring the adjusted R Square, the interaction among 'attention', 'interest', 'attitude', and 'social norm' explains 71.1% of the variance in purchase intention. This implies that the result is consistent with the majority of previous studies, which have been discussed earlier in the thesis.

Moreover, the experimental part of the study shows that consumers will have different levels of purchase intentions when faced with different advertisements, and the images of the people shown in the advertisements can influence consumers' purchase intentions. For all respondents who participated in the experiment, whether respondents recognised the human images used in the advertisements, the presence of the human image in the same advertising context can increase consumers' purchase intention. In comparison to a normal people image, the SMI image was likely to derive a higher level of purchase intent among consumers when respondents recognized the SMI

image included in the advertising. And based on the results of the experiment, it was also found that human image was also positively related to the other independent variables in the research model as well as 'attention' and 'interest' which are from the AIDA model. Through analysis, there is a large correlation between factors from the AIDA model and research model factors which are relate to the TPB model. Thus, factors in the research model do not only affect the 'desire' stage in the AIDA model but also affect the two stages before the 'desire' stage which are the 'attention' stage and the 'interest' stage.

Given the above, this study has provided insight and contributed to the knowledge about how human images in advertisements impact consumers' purchase intention. By applying and extending the AIDA model and TPB model, it is possible to test whether and how involvement factors correlate with 'purchase intention'. In addition, to contribute knowledge about influencer marketing, the study has provided evidence that compared with normal people's presence in advertisements, the presence of SMIs in advertisements could have a greater positive impact on consumer purchase intention.

6.3 Implications

The finding of this thesis enriched the existing body of knowledge and bring previous SMI and digital display advertising research as well as the TPB model and the AIDA model into new content. The results of this study confirm that human images in advertisements could help consumers generate a higher level of attention. Furthermore, this study finds that the presence of a human image could lead to higher levels of purchase intentions. For strategic communication academics, this study provides the basis for future research that delves into the impact of the presence of personas in advertising on consumers. Previous research has focused too much on SMIs and traditional celebrities, neglecting the impact of the presence of ordinary personas in advertising. To further develop the research about marketing communication especially digital display advertising research, it is necessary to study many types of characterisation.

Moreover, this research showed that 'attention', 'interest', 'attitude', and 'social norm' are useful factors to predict consumers' purchase intention. However, 'knowledge' did not work significantly

as the predictor. In this study, 'knowledge' is derived from PBC which is the main difference between the TRA model and the TPB model. This result suggests academics further elaborate and derives PBC variables to better predict consumers' intention. Possibly, attention and interest in the AIDA model could work as a predictor of purchase intention. Apart from that, it stands to reason to explore purchase intention through different theoretical backgrounds and explorative approaches to enrich the field. Except for the effect of human images, the experimental investigation further explores the difference between SMI images and normal people images. Previous research has neglected to look at the relevance of normal personas, but many brands have started to use normal consumers in their advertising. Thus, it is relevant for strategic communication academics theoretically to further study this phenomenon and expand its perspective. As the results of this study found that generic personas have a positive impact on consumers' attention, interest, and purchase intention, it could address the problem of online advertising being habitually ignored by consumers, a phenomenon that promises to enrich the field of marketing communication research as well as strategic communication research.

Lastly, the public's perception of an organisation's reputation can be influenced by advertising (Lloyd-Smith & An, 2019). Therefore, the findings are relevant to the field of brand communication, where the choice of persona in advertising can influence consumer perceptions, which in turn affects the perception of an organisation's reputation. Furthermore, understanding individuals' perceptions of the use of personas in advertising can provide valuable insights for strategic communicators working in marketing and advertising, which can improve the effectiveness of online display advertising. Ultimately, with the help of an experimental method, this study provides personal insight into human images in digital display advertising.

6.4 Limitations

Although this thesis explores some interesting and valuable findings that contribute to the existing body of knowledge on marketing communications as well as strategic communication, it is important to note the limitations. Firstly, the limitations of the convenience sample method. As discussed, the use of a convenience sample has several limitations that limit the generalisability and representativeness of the population in this thesis. The results show that most of the

respondents who responded to the survey were under the age of 35, academically well educated, use social media every day, familiar with the internet, and followed SMIs. And this experiment ignores the impact of the aesthetics of advertising design on consumers. Therefore, the results of this study are not fully representative of all people in society as a whole and are less ecologically valid. Second, this thesis follows a post-positivist research tradition and applies a quantitative approach. As a result, another study and research paradigm limitation is that the results and attitudes are totally based on numbers. In-depth comparisons might have helped to better understand individual attitudes if a mixed-methods approach had been used. Moreover, as the experiment was conducted online and the survey platform used did not have access to the time spent by each participant in the experiment, there was no guarantee that each respondent had taken the experiment seriously. Third, this study did not consider cultural and other types of bias. The cultural perceptions and aesthetic preferences of different regions can affect consumers' attitudes towards advertising and, in turn, the results of this study. Focusing on a particular region or cultural group may make the findings of the study more accurate. Finally, the consumer purchase decision encompasses a complex and multi-stage consumer journey, and although this study extends the TPB theory further, there is still the assumption that the consumer has been given the opportunity and resources to successfully perform the behaviour, ignoring the remaining variables that influence behavioural intentions and motivations.

6.5 Suggestions for future research

The limitations of this thesis lead to new questions that could be of interest for future research. Firstly, convenience sampling was used in this study and the respondent population was too concentrated to be representative of the entire consumer population. Future research could use random sampling to conduct surveys in a particular region, country, or cultural group to obtain more accurate findings. Furthermore, future research could move away from mobile phones as a product category and explore the impact of using personas for other products on consumer purchase intentions. Secondly, the literature recognises the lack of research and the need for a more comprehensive understanding of the process of consumer purchase decisions as well as exploring factors that influence the consumer decision process (Kojima et al., 2010; Lu, Chuan, & Chang, 2014; Sundar & Noseworthy, 2014; Munnukka et al., 2016). The purpose of this thesis is to explore

and contribute to a better understanding of how the use of human images in advertisements can influence consumers' purchase intentions and contribute new knowledge that the use of human images can influence consumers' intention toward the product that is shown in advertisements. As discussed, the findings suggest that one hypothesis about the PBC is not supported, and this result conflicts with previous research. The reason for this may be constant with adding AIDA factors to the regression model with TPB factors. Future research could further explore how to better combine the AIDA model with the TPB model to better predict consumer purchase intention. Moreover, further research aimed to test the AIDA model and the TPB framework with online display advertising, but with other factors would be meaningful, such as the price of the product, the specific platform on which the ad was posted, etc. Through further expanding TPB theory and purchase funnel theory to understand if other factors functioned as peripheral cues for advertising.

Finally, due to the quantitative approach to research, all consumer attitudes, social norm, etc. are analysed based on numbers. Future research could use qualitative research, for example, in-depth interviews to gain insight into consumers' perceptions of the presence of characters in advertising and the impact on their attitudes towards advertising. Moreover, previous literature has examined the impact of using celebrities or social media influencers on brand image, and future research could also explore the impact of using images of ordinary consumers in advertising on the brand image through qualitative research.

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8. Appendix

Appendix 1- Ad images

Group 1.
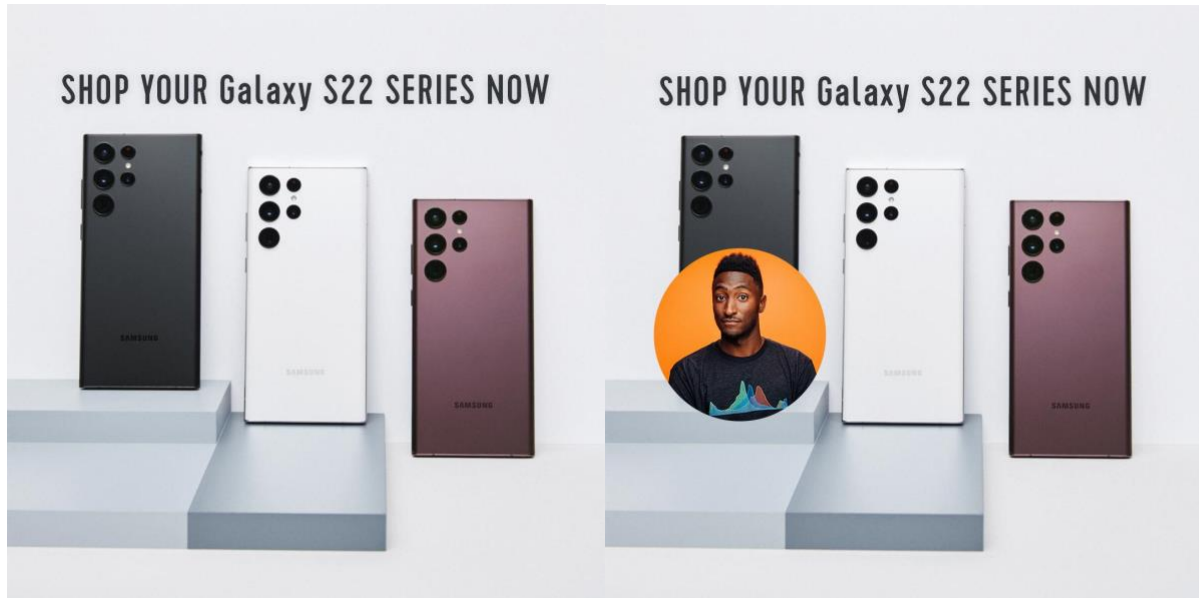
Group 2.

Group 3.

Appendix 2 - Questionnaire

Start page.

Would you want to buy a new phone after seeing the advertisement?

Dear respondent, I am a master student at the department of strategic communication at Lund University. I have create some digital display adverts for smartphone. Would love to know your inner attitude feedback after viewing an ad. The survey will only take 4-6 minutes and your answers will be completely anonymous and all information will be protected. You can cencel your participation at any time.

You can only take the survey once, the survey closes on 4 April 2022. Questions marked with an asterisk (*) are mandatory.

If you have any questions about the survey, please send me an email at: xi1307zh-s@student.lu.se

I really appreciate your participation!

Thank you in advance,

Xinwei

Click button to join the Survey

start experiment

Control group.

Survey

Dear participant, please read the question carefully, answer individually and in accordance with your perceptions.

Remember scroll back to the top after finish each section.

Thank you a lot in advance,

Xinwei

* Required

1. Gender *

   Mark only one oval.

   - Female
   - Male
   - Non-Conforming
   - Perfer not to say

2. What is your age in number of years? (e. g., 22) *

   _____

3. Please state your occupation *

   Mark only one oval.

   - Student
   - Working
   - Unemployed

4. What is the highest degree or level of school you have completed? (If currently * enrolled, highest degree received.)

   Mark only one oval.

   - I have not finished any formal education
   - Lower secondary education
   - Upper secondary education
   - Bachelor's degree
   - Master's degree
   - Doctorate degree

5. Please state annual household income before taxes. *

   Mark only one oval.

   - Less than €10.000
   - €10.000 to €29.999
   - €30.000 to €49.999
   - €50.000 to €69.999
   - €70.000 to €89.999
   - €90.000 to €99.999
   - €100.000 or more

6. What is the frequency of visiting the social media platforms (e.g. YouTube, * Facebook, Instagram, Snapchat, etc)?

   Mark only one oval.

   - Everyday
   - Twice a week
   - Once a week
   - Once a month

7. How many hours do you spend on social media everyday? *

   Mark only one oval.

   - Less than 1 hour
   - 1 hour
   - 2 - 3 hours
   - 3 - 4 hours
   - More than 5 hours

   Advertising 1 questions

   You will now be exposed to several advertisements for Samsung Galaxy 22 series, please look carefully.

   In the following section you will be asked to state the degree to which you agree or disagree about your innermost thoughts towards the advertisement.(Please ignore factors such as product price, brand, operating system)

   Please look carefully and state the degree to which you agree or disagree with each of following statements of the advertisement.

SHOP YOUR Galaxy S22 SERIES NOW

8. If you saw this advertisement on a website, do you think it would catch your * attention?

   Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

9. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

10. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

11. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

12. If you saw this advertisement on a website, would you recommend this product to your social network? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

13. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

Advertisement 2

14. If you saw this advertisement on a website, do you think it would catch your attention? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

15. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

16. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

17. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

18. If you saw this advertisement on a website, would you recommend this product to your social network? *
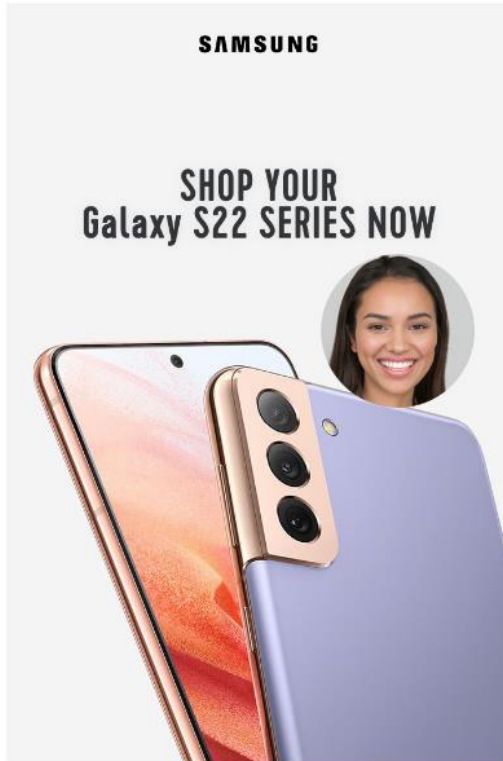
Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

19. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

Advertisement 3

20. If you saw this advertisement on a website, do you think it would catch your attention? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

21. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

22. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

23. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

24. If you saw this advertisement on a website, would you recommend this product to your social network? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

25. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

Background questions — Please answer the following questions based on your experiences

26. Which type of smartphone do you use? *

Mark only one oval.

○ Apple
○ Android
○ Other

27. Please rate your attitude towards the smartphone? *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	○	○	○	○	○	○	○	Positive

28. What is your attitude towards the Samsung brand *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	○	○	○	○	○	○	○	Positive

29. What is your attitude towards the technology? *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	○	○	○	○	○	○	○	Positive

30. How satisfied are you with your current skills for using the smartphone? *

Mark only one oval.

	1	2	3	4	5	6	7	
Unsatisfied	○	○	○	○	○	○	○	Satisfied

31. If you are unaware, the definition of an Influencer is" An influencer is an individual who has the power to affect purchase decisions of others because of his/her authority, knowledge, position or relationship with his/her audience.An individual who has a following in a particular niche, which they actively engage with. The size of the following depends on the size of the niche. So, do you follow any influencers on social media? *

Mark only one oval.

○ NO
○ 1-5
○ 6-10
○ 11-20
○ More than 20

65

32. You feel like you "know" the influencers you follow, and trust what they say. *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

33. Social media influencers have a big impact on your decision to purchase a product. *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

Recognition and manipulation check questions

34. Did you identify the social media influencer that show on the ads in this survey? *

mkbhd ✓

1,742 Posts   3.5M Followers   433 Following

Marques Brownlee
I promise I won't overdo the filters.
dbrand.com/winners

Mark only one oval.

◯ Yes
◯ No

35. If you have any questions about this survey, you can leave them in the comments box below.

_____

36. If you are interested in the result of the study, you can leave your e-mail address here and we will send a summary to you after the study complete.

_____

Thank you for completing this survey !

Thank you for completing the questionnaire, it helped us a lot. Your answer will help us to better understand the role of the human image in digital display advertising.
If you have any questions, please feel free to contact us at the following e-mail address: xi13O7zh-s@student.lu.se

Wish you have a nice day.

For SurveyCircle users (www.surveycircle.com): The Survey Code is: JCK6-GZP5-8EKK-H7D7

Treatment group.

Survey

Dear participant, please read the question carefully, answer individually and in accordance with your perceptions.
Remember scroll back to the top after finish each section.
Thank you a lot in advance,
Xinwei

* Required

1. Gender *

   Mark only one oval.

   ○ Female
   ○ Male
   ○ Non-Conforming
   ○ Perfer not to say

2. What is your age in number of years? (e. g., 22) *

   _____

3. Please state your occupation *

   Mark only one oval.

   ○ Student
   ○ Working
   ○ Unemployed

4. What is the highest degree or level of school you have completed? (If currently enrolled, highest degree received.) *

   Mark only one oval.

   ○ I have not finished any formal education
   ○ Lower secondary education
   ○ Upper secondary education
   ○ Bachelor's degree
   ○ Master's degree
   ○ Doctorate degree

5. Please state annual household income before taxes. *

   Mark only one oval.

   ○ Less than €10.000
   ○ €10.000 to €29.999
   ○ €30.000 to €49.999
   ○ €50.000 to €69.999
   ○ €70.000 to €89.999
   ○ €90.000 to €99.999
   ○ €100.000 or more

6. What is the frequency of visiting the social media platforms (e.g. YouTube, Facebook, Instagram, Snapchat, etc)? *

   Mark only one oval.

   ○ Everyday
   ○ Twice a week
   ○ Once a week
   ○ Once a month

7. How many hours do you spend on social media everyday? *

   Mark only one oval.
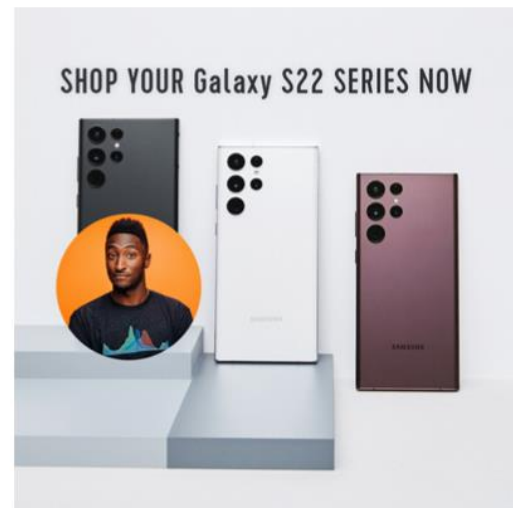
   ○ Less than 1 hour
   ○ 1 hour
   ○ 2 - 3 hours
   ○ 3 - 4 hours
   ○ More than 5 hours

   Advertisement 1

   You will now be exposed to several advertisements for Samsung Galaxy 22 series, please look carefully.

   In the following section you will be asked to state the degree to which you agree or disagree about your innermost thoughts towards the advertisement.(Please ignore factors such as product price, brand, operating system)

   Please look carefully and state the degree to which you agree or disagree with each of following statements of the advertisement.

SHOP YOUR Galaxy S22 SERIES NOW

8. If you saw this advertisement on a website, do you think it would catch your attention? *

   Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

67

9. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

10. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

11. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

12. If you saw this advertisement on a website, would you recommend this product to your social network? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

13. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

Advertisement 2

14. If you saw this advertisement on a website, do you think it would catch your attention? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

15. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

16. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

17. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

18. If you saw this advertisement on a website, would you recommend this product to your social network? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

19. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

Advertisement 3

20. If you saw this advertisement on a website, do you think it would catch your attention? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

21. If you saw this advertisement on a website, do you think it would make you interested with this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

22. If you saw this advertisement on a website, do you think it would make you want to buy this product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

23. If you saw this advertisement on a website, do you think it would improve you attitude towards the product? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

24. If you saw this advertisement on a website, would you recommend this product to your social network? *

Mark only one oval.

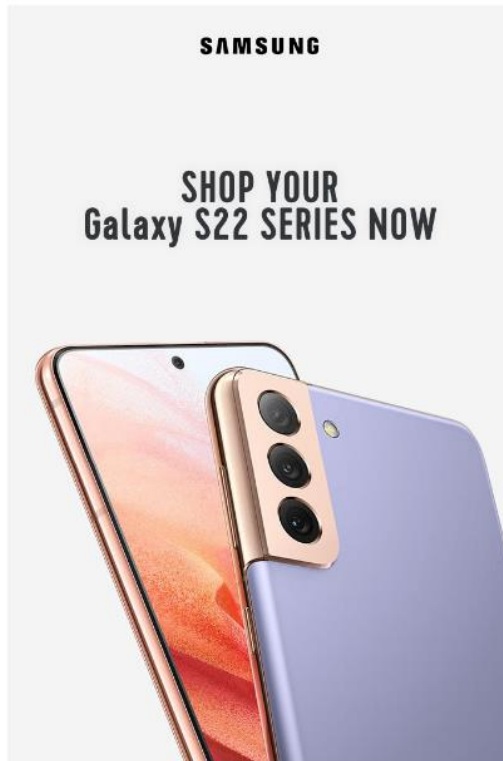|	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

25. If you saw this advertisement on a website, do you think the product would be easy to use? *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Strongly agree

Background questions — Please answer the following questions based on your experiences

26. Which type of smartphone do you use? *

Mark only one oval.

- ⬭ Apple
- ⬭ Android
- ⬭ Other

27. Please rate your attitude towards the smartphone? *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Positive

28. What is your attitude towards the Samsung brand *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Positive

29. What is your attitude towards the technology? *

Mark only one oval.

	1	2	3	4	5	6	7	
Negative	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Positive

30. How satisfied are you with your current skills for using the smartphone? *

Mark only one oval.

	1	2	3	4	5	6	7	
Unsatisfied	⬭	⬭	⬭	⬭	⬭	⬭	⬭	Satisfied

31. If you are unaware, the definition of an Influencer is" An influencer is an individual who has the power to affect purchase decisions of others because of his/her authority, knowledge, position or relationship with his/her audience. An individual who has a following in a particular niche, which they actively engage with. The size of the following depends on the size of the niche. So, do you follow any influencers on social media? *

Mark only one oval.

- ⬭ NO
- ⬭ 1-5
- ⬭ 6-10
- ⬭ 11-20
- ⬭ More than 20

69

32. You feel like you "know" the influencers you follow, and trust what they say, *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

33. Social media influencers have a big impact on your decision to purchase a product. *

Mark only one oval.

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

Recognition and manipulation check questions

34. Did you identify the social media influencer that show on the ads in this survey? *

‹   mkbhd ☑   •••

1,742   **3.5M**   **433**
Posts   Followers   Following

Marques Brownlee
I promise I won't overdo the filters.
dbrand.com/winners

Mark only one oval.

◯ Yes
◯ No

35. If you have any questions about this survey, you can leave them in the comments box below.

_____

36. If you are interested in the result of the study, you can leave your e-mail address here and we will send a summary to you after the study complete.

_____

Thank you for completing this survey !
Thank you for completing the questionnaire, it helped us a lot. Your answer will help us to better understand the role of the human image in digital display advertising.
If you have any questions, please feel free to contact us at the following e-mail address: xit307zh-s@student.lu.se

Wish you have a nice day.

For SurveyCircle users (www.surveycircle.com): The Survey Code is: JCK6-GZP5-8EKK-H7D7

Appendix 3- SPSS output

Correlation Matrix among AIDA factors and Main predictors

	Interest	Purchase Intention	Attitude	Social Norm	Knowledge
Attention	.851	.775	.742	.598	.644
Interest		.809	.767	.640	.620
Purchase Intention			.775	.733	.624
Attitude				.701	.659
Social norm					.511

P-plot: H1, H3, & H4.

IV: Attention, Interest, Attitude, Social norm, & Knowledge

DV: Purchase intention

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Sum_Purchase
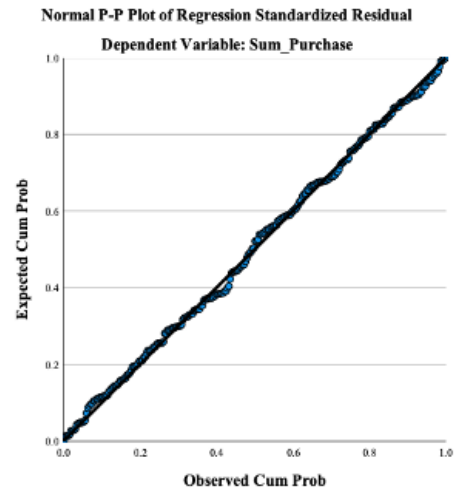
Scatterplot: H1, H3, & H4.

IV: Attention, Interest, Attitude, Social norm, & Knowledge

DV: Purchase intention

Scatterplot
Dependent Variable: Sum_Purchase
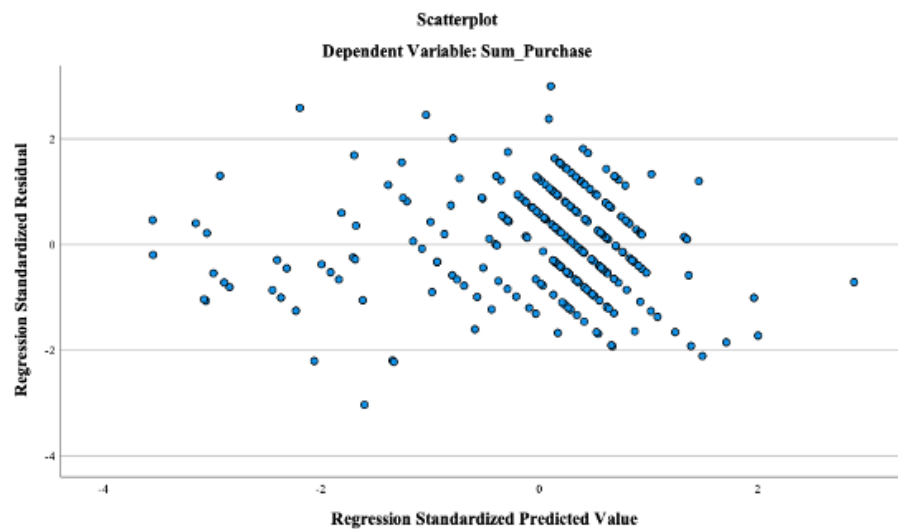
Control group-Mean value for all factors

Respondents who recognize the SMI:

Statistics

		Attention1_1_R_SMI	Interested1_1_R_SMI	Purchase1_1_R_SMI	Attitude1_1_R_SMI	Socialnorm1_1_R_SMI	Knowledge1_1_R_SMI
N	Valid	37	37	37	37	37	37
	Missing	246	246	246	246	246	246
Mean		4.4324	4.0541	3.8919	3.9189	2.8649	3.8108
Std. Deviation		1.04191	1.15340	1.12506	1.25562	1.27284	1.24360

Statistics

		Attention2_1_R_SMI	Interested2_1_R_SMI	Purchase2_1_R_SMI	Attitude2_1_R_SMI	Socialnorm2_1_R_SMI	Knowledge2_1_R_SMI
N	Valid	37	37	37	37	37	37
	Missing	246	246	246	246	246	246
Mean		5.7027	5.4865	5.2703	5.3514	4.4324	5.4865

| | | Std. | 1.22 168 | 1.21613 | .96173 | 1.20684 | 1.48213 | 1.19307 |
| Deviation | | | | | | | | |

Statistics

		Attention 3_1_R_SMI	Interested3_1_R_SMI	Purchase3_1_R_SMI	Attitude3_1_R_SMI	Socialnorm3_1_R_SMI	Knowledge3_1_R_SMI
N	Valid	37	37	37	37	37	37
	Missing	246	246	246	246	246	246
Mean		5.2973	4.7568	4.5676	4.6216	3.7568	5.2162
Std. Deviation		1.05053	.95468	.98715	1.03686	1.11568	1.13370

Respondents who can not recognize the SMI:

Statistics

		Attention1_1_NotR	Interested1_1_NotR	Purchase1_1_NotR	Attitude1_1_NotR	Socialnorm1_1_NotR	Knowledge1_1_NotR
N	Valid	104	104	104	104	104	104

	Missing	179	179	179	179	179	179
	Mean	3.9712	3.7115	3.3269	3.1731	2.4904	3.5096
	Std. Deviation	1.06540	1.04902	.84120	.91844	.90302	1.10599

Statistics

		Attention2_1_NotR	Interested2_1_NotR	Purchase2_1_NotR	Attitude2_1_NotR	Socialnorm2_1_NotR	Knowledge2_1_NotR
N	Valid	104	104	104	104	104	104
	Missing	179	179	179	179	179	179
Mean		5.1923	4.8846	4.8462	4.7308	3.9519	5.0481
Std. Deviation		1.14973	1.27186	1.26006	1.16778	1.44397	1.12673

Statistics

		Attention3_1_NotR	Interested3_1_NotR	Purchase3_1_NotR	Attitude3_1_NotR	Socialnorm3_1_NotR	Knowledge3_1_NotR

N	Valid	104	104	104	104	104	104
	Missing	179	179	179	179	179	179
Mean		5.346 2	5.1442	4.9423	4.8654	4.0673	5.7212
Std. Deviation		1.320 26	1.34683	1.42670	1.33698	1.49604	1.42418

Treatment group-Mean value for all factors

Respondents who recognize the SMI:

Statistics

		Attention 1_2_R_S MI	Interested1 _2_R_SMI	Purchase1 _2_R_SMI	Attitude1 _2_R_S MI	Socialnorm 1_2_R_SM I	Knowledge 1_2_R_SM I
N	Valid	36	36	36	36	36	36
	Missing	247	247	247	247	247	247
Mean		5.80 56	5.3889	5.1389	5.4444	4.6389	5.7778
Std. Deviation		1.21 466	1.53582	1.72631	1.42316	1.75910	1.26742

Statistics

		Attention 2_2_R_SMI	Interested2_2_R_SMI	Purchase2_2_R_SMI	Attitude2_2_R_SMI	Socialnorm2_2_R_SMI	Knowledge2_2_R_SMI
N	Valid	36	36	36	36	36	36
	Missing	247	247	247	247	247	247
Mean		4.7500	4.3333	4.3889	4.3056	3.3056	5.0833
Std. Deviation		1.46141	1.30931	1.47895	1.45051	1.19090	1.46141

Statistics

		Attention 3_2_R_SMI	Interested3_2_R_SMI	Purchase3_2_R_SMI	Attitude3_2_R_SMI	Socialnorm3_2_R_SMI	Knowledge3_2_R_SMI
N	Valid	36	36	36	36	36	36
	Missing	247	247	247	247	247	247
Mean		4.2222	3.9167	3.5000	3.5000	2.7778	3.6111

Std. Deviation	.897 97	1.18019	.97101	1.15882	.98883	1.33690

Respondents who can not recognize the SMI:

Statistics

		Atten tion1 _2_N otR	Interested1 _2_NotR	Purchase1 _2_NotR	Attitude1 _2_NotR	Socialnorm 1_2_NotR	Knowledge 1_2_NotR
N	Valid	106	106	106	106	106	106
	Missing	177	177	177	177	177	177
Mean		4.98 11	4.7642	4.6132	4.5660	3.5566	5.0943
Std. Deviation		1.46 047	1.50271	1.58907	1.45418	1.33866	1.33473

Statistics

		Atten tion2 _2_N otR	Interested2 _2_NotR	Purchase2 _2_NotR	Attitude2 _2_NotR	Socialnorm 2_2_NotR	Knowledge 2_2_NotR
N	Valid	106	106	106	106	106	106

Missing	177	177	177	177	177	177
Mean	5.0849	4.8679	4.6509	4.6698	3.7736	5.3396
Std. Deviation	1.49359	1.53732	1.52467	1.51640	1.39580	1.47284

Statistics

		Attention3_2_NotR	Interested3_2_NotR	Purchase3_2_NotR	Attitude3_2_NotR	Socialnorm3_2_NotR	Knowledge3_2_NotR
N	Valid	106	106	106	106	106	106
	Missing	177	177	177	177	177	177
Mean		4.2170	3.8302	3.6038	3.5000	2.9245	3.6132
Std. Deviation		1.05112	1.05534	1.07508	1.26679	1.22434	1.06521