A research report investigating the difference between the brand positioning of two brands, based on their use of comparative advertising

A case study of Apple and Samsung

By

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ABSTRACT

Companies are unsure whether they should utilise comparative advertisements for their products and services, and whether the use of these advertisements will in any way result in them being better positioned in the market by consumers, especially since comparative advertisements are perceived so differently. This study aims to investigate whether the brand positioning of two brands differs based on their use of comparative advertising.

To test the null hypotheses that the use of comparative advertising does not effect a brand's positioning in the market, a quantitative study of the relative effectiveness of comparative and non-comparative advertisements on a brand's positioning in the market was conducted by comparing a Samsung comparative advertisement to an Apple non-comparative advertisement via an online survey questionnaire. The questionnaire was distributed to South Africans by the means of convenience and snowball sampling and analysed using descriptive analysis, in the form of pie charts and bar graphs, as well as inferential statistics via a one-sample t-test.

The hypotheses in terms of Attention were accepted, as the results of both advertisements in terms of identification and recall were similar. However, the hypotheses in terms of Perception and Attitude towards the advertisements were rejected. This answers the research questions: (1) does a brand's use of comparative advertising in any way change the brand's positioning, and (2) does a brand's use of non-comparative advertising in any way change the brand's positioning? The answer to both questions, *ceteris paribus*, is yes.

The results indicated that Apple, as a brand, is better positioned in the minds of consumers because it utilised a non-comparative advertisement, and thus, this format of advertising would be recommended above comparative advertising. In this context, comparative advertising is defined as the practice of explicitly comparing one or more specific product or service attributes of a sponsored and competing brand(s).

This paper contributes by providing empirical evidence which helps to fill a gap in literature: the effects of comparative advertisements on brands' positioning. In addition, this research topic may be applicable in the field of advertising and marketing consulting when firms are to be advised as to whether or not to use comparative advertising. However, comparative advertising is very complex, and even though this may be the case, there were certainly still conclusions to be drawn from the findings.

Key words: comparative advertising, non-comparative advertising, brand positioning.

DECLARATION

I, Chanelle Botha, hereby declare that this Research Report submitted for the BCom Honours Strategic Brand Management and Leadership to The Independent Institute of Education (The IIE) is my own work and has not previously been submitted to another University or Higher Education Institution for a postgraduate qualification.

Signature [redacted]

Date 29/11/2021

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1. INTRODUCTION

The introduction of this study will initiate with a contextualisation of the study including background information, followed by a rationale explaining the study's relevance and contribution. Thereafter, the research problem, research purpose, and research questions will be discussed as well as the research null hypotheses.

1.1. Contextualisation

Comparative advertising has experienced rapid growth over the past few decades, especially since the Federal Trade Commission (hereafter referred to as FTC) started the registering process of public endorsements with the idea that comparative advertising would benefit consumers (Ash and Wee, 1983). Thus, comparative advertising is now considered one of the most effective advertising strategies, since one brand claims superiority over its competitor and attempts to position the brand in a certain way in the minds of consumers. However, since its growth, consumers and researchers have been debating the effectiveness of comparative advertising (Brabbs, 2001, cited in Williams and Page, 2013; Etgar and Goodwin, 1978; Kershaw and Tennenbaum 1976). Some consumers find these types of advertisements acceptable, and some find them unacceptable. On the other hand, some researchers believe that misidentification between brands are reduced when comparative advertising is used, whereas others believe that it increases confusion between brands. In some countries comparative advertising is even considered unethical or illegal. In South Africa, the use of comparative advertising is prohibited due to trademark infringement; however, it is popular in the United States (hereafter referred to as USA) as a recent analysis found that 60% of advertisements in the USA contained comparative claims (Rademeyer Attorneys, 2020).

In addition, many researchers and practitioners consider one of the most important elements in marketing, branding, and strategy to be positioning. The reason being that positioning aims to differentiate a brand or product in the minds of consumers as superior compared to others on one or more attribute(s). In this study, the focus of differentiation was points of difference between two brands, Apple and Samsung, focusing specifically on Samsung's use of comparative advertising and Apple's use of non-comparative advertising and its influence on their brand positioning. So how does a brand go about the use of comparative advertising, and how does it effect its positioning in the minds of consumers?

In order to effectively understand the impact of the research problem at hand, the following study is undertaken: analysing the relationship between brands' use of comparative advertising and brand positioning.

1.2. Rationale

This research topic on comparative advertising and brand positioning was chosen due to the research interest in how the use of comparative versus non-comparative advertising by two well-known brands could possibly affect their positioning in the minds of consumers. This was a fascinating topic to research and may be applicable in the field of advertising and marketing consulting. The research results of this study provides empirical evidence which helps fill a gap in literature: only one research report could be found on the effects of brand positioning on brands' use of comparative advertisements (Shimp and Dyer, 1978), but none on the effects of comparative advertisements on their positioning. The researcher aimed to address this gap by means of a positivist approach with special attention to the Hierarchy of Effects model, specifically the AIDA model by St. Lewis (Wijaya, 2012), in order to measure the communication effects of both the Samsung comparative advertisement and the Apple non-comparative advertisement to the behaviour of the consumer audience which it reaches.

1.3. Problem statement

For many years comparative advertising has been evident in everyday media, and it affects the way consumers perceive a brand, influencing the brand's positioning. The FTC started the registering process of public endorsements with the idea that comparative advertising would benefit customers. This is why they encouraged advertisers to start explicitly naming the competing brands in their comparative advertisements (Ash and Wee, 1983). The approval of the FTC resulted in a greater frequency of comparative advertisements being broadcasted in the USA. However, in some countries comparative advertisements may be viewed as culturally inappropriate or even illegal, which is why they are less prevalent globally (Williams and Page, 2013).

Since the use of comparative advertising has been increasing and practitioners have shown increased interest in its use (Shimp and Dyer, 1978; Raju, Rajagopal and Unnava, 2002; Gotlieb and Sarel, 1991), there has been much debate on the topic. Consumers are also debating on the topic, and according to Brabbs (2001, cited in Williams and Page, 2013) around 62% of consumers find brands criticising each other in advertisements as unacceptable, whereas 34% find it acceptable. This research also shows that more women are opposed to these advertisements than men — only 27% of women and 42% of men believe that comparative advertisements are acceptable. All in all, the research by Brabbs (2001) indicated that more people are opposed to comparative advertising than not; but still, the use of comparative advertising keeps increasing (Williams and Page, 2013). In addition, there has also been debate about whether the use of comparative advertising positions a brand more favourably. Some believe that comparative advertisements reduces a brand's misidentification with another and attracts the attention of the brand's users as well as users of the compared-to brand, resulting in greater awareness (Etgar and Goodwin, 1978). On the contrary, Kershaw and Tennenbaum (1976, cited in Etgar and Goodwin, 1978) believe that the opposite may happen: consumers may confuse the compared brands and consumer attitudes may improve towards the compared-to brand.

The problem was thus whether companies should utilise comparative advertisements for their products and services, and whether its use will in any way result in them being better positioned in the market by consumers, especially since comparative advertisements are perceived so differently.

Thus, this study aimed to investigate whether the brand positioning of two brands differs based on their use of comparative advertising.

1.4. Research purpose and objectives

The purpose of this study was to explore the phenomena of brand positioning by referring to the rivalry between Apple and Samsung and their use of comparative advertisements.

Later in this paper, the gathered literature for this specific study will be discussed at length. The objectives of the study were derived from this literature, and from these the hypotheses were derived. This study had one primary objective, which was to determine whether the brand positioning of two brands differs based on their use of comparative advertising. In addition, there were eight secondary objectives which were divided into three points in line with literature:

1. To determine whether the (i) identification and (ii) recall of two brands differ based on their use of comparative advertising.
2. To determine whether the (iii) informativeness, (iv) interestingness, (v) believability and (vi) source credibility of two brands differ based on their use of comparative advertising.
3. To determine whether (vii) favourable attitudes and (viii) purchase intent towards two brands differ based on their use of comparative advertising.

These secondary objectives were derived from a previous study by Shimp and Dyer (1978). This study made use of the Hierarchy of Effects model, which will be further discussed in section 2, which the researcher believed to be suitable to this study as well.

1.5. Research questions and hypotheses

The primary question that guided this research was: How does the brand positioning of two brands, which is determined by the public, differ based on their use of comparative advertising?

Based on the primary research question, the following research questions were identified:

RQ1: Does a brand’s use of comparative advertising in any way change its positioning?

RQ2: Does a brand's use of non-comparative advertising in any way change its positioning?

These questions were answered by deriving hypotheses from the research objectives. The null hypotheses, which are linked to the gathered literature and the research objectives, are indicated below in table 1.

Table 1: Null hypotheses derived from the secondary objectives.

$H_0 1$	The identification of two brands does not differ based on their use of comparative advertising.
$H_0 2$	The recall of two brands does not differ based on their use of comparative advertising.
$H_0 3$	The informativeness of two brands does not differ based on their use of comparative advertising.
$H_0 4$	The interestingness of two brands does not differ based on their use of comparative advertising.
$H_0 5$	The believability of two brands does not differ based on their use of comparative advertising.
$H_0 6$	The truthfulness and convincingness of two brands does not differ based on their use of comparative advertising.
$H_0 7$	Favourable attitudes towards two brands does not differ based on their use of comparative advertising.
$H_0 8$	Purchase intent towards two brands does not differ based on their use of comparative advertising.

A summary of the concept of this research study can be found in Appendix A.

1.6. Document outline

As indicated earlier, the document will include a literature review discussing the theoretical foundation and how it links to the research problem in the next section. Thereafter, the methodology section, which rigorously outlines the research approach and design used to investigate the research problem, will be presented. The data collected from the primary research will then be presented, analysed and interpreted in terms of the broader context of the research problem in the following section. Finally, in the conclusion, the null hypotheses of this research will be accepted or rejected based on inferential statistics, concluded by an evaluation of the success of the research.

2. LITERATURE REVIEW

This literature review will analyse existing literature on this topic of research in terms of comparative advertising, non-comparative advertising and brand positioning by focusing on the Hierarchy of Effects model of 1989 by St. Lewis.

2.1. Conceptualisation

The three primary key concepts that were utilised in this study are defined below.

2.1.1. Comparative advertising

Comparative advertising can be defined as the practice of explicitly comparing one or more specific product or service attributes of a sponsored and competing brand(s) (Wilkie and Farris, 1975). This form of advertising is mostly used in the USA due to their accompanying regulations (Ash and Wee, 1983); however, they are less prevalent globally and especially in countries such as South Africa, as they are prohibited by law (Williams and Page, 2013; Rademeyer Attorneys, 2020). This type of advertising mostly takes place through the use of traditional advertising media such as visual advertisements and billboards.

Comparative advertising can be classified on the basis of whether competitors are explicitly referred to or not. Direct comparative advertising is the explicit presentation of competitors' names, logos, symbols or the like as a point of comparison in advertised messages (Barry and Tremblay, 1975). In contrast, indirect comparative advertising refers to unnamed competitors instead of directly identifying competitive brands in advertisements (Miniard, Barone, Rose and Manning, 2006). Furthermore, direct comparative advertisements can be differentiated on the basis of whether they are positive or negative (Eyada and Milla, 2020). Positive comparative advertising acknowledges valuable features of competitors and compares the brand by stating that is also possess those features, but with superior performance, or that it has features that the competitor does not have. On the other hand, negative comparative advertising mentions a weak feature of the competitor instead of any positive features, emphasising that the advertising brand does not have those features and is thus superior.

2.1.2. Non-comparative advertising

Under non-comparative advertising a firm advertises its own quality (Emons and Fluet, 2012). Thus, a firm discloses its own quality and not that of a competitor. Emons and Fluet (2012) states that a firm only advertises non-comparatively if its quality level is above a certain threshold or benchmark. Thus, if the quality is below this threshold, the firm would rather remain silent since the cost of sending the message will be higher than the gain. When both comparative and non-comparative formats are possible, such as in the USA, consumers may interpret non-comparative advertisements as implying a small quality differential between two brands, since the differential would have been disclosed if it had been high (Emons and Fluet, 2012). However, when only non-comparative advertising is possible, such as in South Africa, firms will advertise their high quality independent of competitors' quality levels (Emons and Fluet, 2012).

2.1.3. Brand positioning

One of the earlier definitions of brand positioning was made by Doyle (1983, cited in Brooksbank, 1994: 10): "The brand positioning strategy is the choice of target market segment which a business seeks to serve as well as the choice of differential advantage describing the business' mode of competing against rivals in the particular segment." A later definition by Kotler (2005, cited in Olsson and Sandru, 2006: 3) states that: "Positioning is the design of the company's offering and image to achieve the result of occupying a distinctive and meaningful competitive position in the minds of target consumers."

These concepts were deemed relevant to the study as the objective was to explore whether there is a difference between the brand positioning of two brands depending on whether they utilise comparative or non-comparative advertising. Therefore, it was necessary to have a clear understanding of the above-mentioned concepts of comparative advertising, non-comparative advertising, and brand positioning so that the researcher could accurately and clearly conduct research to address the research questions.

The following subsections will provide an in-depth evaluation of the literature applicable to this study with reference to the above-mentioned concepts.

2.2. The Hierarchy of Effects model

The Hierarchy of Effects model was the foundational theory of this research. Ultimately, this model strives to help marketing communication practitioners and researchers by aiding the preparation of marketing communication strategies. In addition, it strives to measure the communication effects of an advertisement to the behaviour of the consumer audience which it reaches (Wijaya, 2012). The importance of the Hierarchy of Effects model in advertising is that it allows for the prediction of behaviour via the intention-behaviour relationship, it provides information on what to emphasise in a strategy, and it aids the planning of conceptual tasks within a firm (Barry and Howard, 1990).

Since its inception with the AID (Attention, Interest, and Desire) model by St. Elmo Lewis in 1898, this theory has received substantial attention in literature analyses and many various academics and researchers have developed different versions of this model. Examples include the AIDAS (Attention, Interest, Desire, Action, and Satisfaction) theory by A.F. Sheldon in 1911, the ACCA (Awareness, Comprehension, Conviction, and Action) model by S.R. Hall in 1915, and the AIETA (Awareness, Interest, Evaluation, Trial, and Adoption) model by E.M. Rogers in 1962, to name only a few (Wijaya, 2012). The second attempt in 1898 by St. Elmo Lewis, however attributed in literature to Strong (1925), was the AIDA and model, an abbreviation for Attention, Interest, Desire and Action (Wijaya, 2012) (see Figure 1). Originally designed to represent a salesperson and the stages to go through when pitching to a prospective customer, this model later became a framework to describe how to persuasively communicate or advertise.

Figure 1: The AIDA model (Chi, 2021).

Thus, the traditional Hierarchy model suggests that the response from audiences of advertisements occur in an orderly manner: cognitive, affective and conative. However, according to Weilbacher (2001, cited in Wijaya, 2012) there exists no specific evidence relating to the measurements implied within these Hierarchy of Effects models and their reflection of the ‘orderly way’ in which consumers are effected into purchasing a product or brand. Thus, in the words of Wijaya (2012: 79), “there is no evidence that every Hierarchy of Effects model in advertising ends in a sale.”

Another researcher who critiqued the Hierarchy models is Egan (2007), who stated that (i) there is no evidence showing that consumers actually go through each stage in the model, (ii) potential interaction between the various stages are not accounted for in the models, and (iii) often post- purchase behaviour is left out. In addition, the Hierarchy of Effects models do not take into account the dynamics of today’s advertising environment via information technology that changed the way in which consumers communicate and receive advertisements and the way in which brands influence consumer audience behaviour.

The general question for the effort of this study concerned whether comparative advertising or non-comparative advertising is more effective in achieving the before-mentioned communication goals, such as attention, perception and action (which will be discussed later), and also to determine whether the achievement of these goals mediates the positioning of these brands in the market. This is why the Hierarchy of Effects model, or the AIDA model, was an appropriate model to measure whether advertising goals will be sufficiently met depending on the form of advertisement — comparative or non-comparative.

2.3. The independent variable — comparative advertising

The independent variable within a research study is the factor in the research analysis that is controllable by the researcher, and created rather than simply measured. To be able to manipulate and control the independent variable is essential to achieve certain desired outcomes, by measuring the effect on the dependent variables (Gibson, Karney and Guo, 2020). Thus, within this research project, the selected independent variable was the use or non-use of comparative advertisements by a brand.

Comparative advertising has a history stemmed in confusion and debate, as there has not been much written work completed on this topic (Barry and Tremblay, 1975). The debates sparked by these types of advertisements includes opinions such as, that it enhances brand identification and market share (Chevins, 1975) and, contrastingly, that it increases consumer awareness of the competitor's brand and creates confusion (Levine, 1976).

However, albeit the controversy, the use of comparative advertisements by brands keep increasing due to the belief that they are more effective than non-comparative approaches (Winters, 1986, cited in Muehling, Stoltman and Grossbart, 1990). This belief is not backed by evidence, since there is little research done on why comparative advertisements may be more effective.

2.4. The dependent variable — brand positioning

The dependent variable is the variable that will possibly experience an effect due to a predominant change in the independent variable. Thus, it is the variable being tested and measured during research (McLeod, 2019). The fundamental dependent variable of this research was brand positioning. The selection of the most appropriate dependent variable must correlate with the desired outcome wished to be measured or achieved via the manipulation of the independent variable (Zikmund & Babin, 2016), which is why brand positioning took precedence over other possible variables that also denote market outcomes.

Many researchers and practitioners consider one of the most important elements in marketing, branding and strategy to be positioning (Urde and Koch, 2014; Brooksbank, 1994; Kapferer, 2012). However, there is a lack of agreement on what positioning actually means, and when and how to apply it (Urde and Koch, 2014). This may result in confusion, wrong decisions and uncertainty.

One primary objective of positioning is to differentiate a brand as superior to competitors on one or more specific attribute (Pechmann and Ratneshwar, 1991). This leads to the identification of a brand's points of parity and points of difference, with specific focus on points of difference in this study. A brand's points of difference are attributes or benefits that consumers evaluate positively and strongly associate with a brand, and consumers believe that they cannot find these attributes to the same extent with any other competitive brand (Kotler and Keller, 2016). Once this differentiated attribute is chosen, one has to choose the means of communicating it to consumers; and, according to Pechmann and Ratneshwar (1991), the most effective means of communicating this differentiation to consumers is via comparative advertising. However, one should keep in mind that while these comparative advertisements aim to diversify the sponsoring brand, it may end up having the opposite result, which is brand-association due to perceived parity (or uniformity).

In the end, all established brands have a position which may be clear to its target consumers and may be matched with the intentions of the brand. This position is affected by the activities and choices of both the brand itself as well as other competing brands. This is why brand positioning was established as the dependent variable within this study: to measure the effect of activities (in this case, the use of comparative or non-comparative advertising) by brands on its positioning.

However, there is often more than one dependent variable, which in this case will form part of the construct.

2.5. The construct

Often in research, there is more than one dependent variable that are combined under one main variable, or a single umbrella category, known as the construct (Zikmund and Babin, 2016). This was the case in this study, in which brand positioning was identified as the construct.

According to Manhas (2010), one major objective of brand positioning strategy is the reinforcement of a positive image that a target audience already has of the brand, the correcting of a negative image, or the creation of an entirely new image for a brand.

The Hierarchy of Effects model, explained in section 2.2, suggested three fundamental tasks that advertising must perform: enhance consumers' brand awareness, influence their perceptions and beliefs of a brand in a favourable manner, and increase their brand preference and encourage purchase (Shimp and Dyer, 1978). With specific reference to the Hierarchy of Effects model, and linked to influences on brand positioning, eight additional dependent variables have been isolated and labeled under three categories based on a study done by Shimp and Dyer (1978). These three categories are for convenience, and were labeled as Attention, Perceptual and Attitudinal Levels. These variables further supported the proposed presumption that the manipulation of the independent variable (the use of comparative advertisements by a brand) will result in an observed response in a brand's positioning as a whole. In addition, the variables will be an indication of brand positioning. The secondary variables are as follows: identification, recall, informativeness, interestingness, believability, truthfulness and convincingness, favourable attitudes, and positive buying intentions.

In addition to Shimp and Dyer's (1978) study on comparative advertising and brand positioning, Ogilvy and Mather (1975) has conducted one of the only experimental studies whereby comparative advertisements were directly tested against non-comparative advertisements. Thus, results will later be compared to these two studies to evaluate whether there is any correlation.

2.5.1. Attention level

The two indicators of attention used by Shimp and Dyer (1978) was the ability of consumers to both correctly identify the sponsoring brands as well as their ability to correctly recall core points within the comparative advertisements.

When a consumer is able to identify a brand and recall points in the advertisements, it means that the brand is differentiated in a consumer's mind as one worth remembering. This means that the brand is successful in positioning itself in the minds of consumers. The research issue then is whether comparative advertising sparks confusion within the audiences of the advertisements such that they are unable to correctly identify the sponsoring brand or recall core points (Shimp and Dyer, 1978).

2.5.2. Perceptual level

In the perceptual level, one asks whether comparative advertising has an effect on the audience's beliefs and perceptions. The components that Shimp and

Dyer (1978) believed would measure perception is: informativeness, interestingness, believability, truthfulness and convincingness.

When a consumer leans towards an attitude in favour of these components in comparative advertisements, it means that they believe that this form of advertising is a more believable advertising-form and connects this belief to the authority of the sponsoring brand. As a result, a brand is well-positioned as sincere and genuine in the minds of consumers (Shimp and Dyer, 1978).

2.5.3. Attitudinal level

In this level, one wants to investigate whether the directness of comparative advertisements has as impact on consumers' acceptance of message claims in that it results in positive buying intentions. Shimp and Dyer (1978) found that favourable attitudes and positive buying intentions should be measured to measure consumer disposition towards comparative advertisements.

When consumers' attitudes towards the sponsoring brand is favourable, and they intent to purchase the brand or product, it means that the advertisement convinced them of the brand's message claims and the brand is well-positioned in the minds of consumers as a brand that they want or need (Shimp and Dyer, 1978).

2.6. The case study

When direct comparative advertising is used, the sponsoring brand states the name of the compared-to brand or uses icons, figures or incidents related to them explicitly in order to indicate superiority (Eyada and Milla, 2020). This approach is extensively used by Samsung, the electronics and technology company, which is especially evident in its 2018 'Ingenius' comparative advertising campaign for the Galaxy S9 smartphone (BlowtorchHonor, 2018), where Samsung attacked the Apple iPhone X's dongle life, slow download speeds and other features (Naresh, 2019). In these advertisements, it is very clear that Samsung is comparing their smartphone to Apple, evident in the Apple logo print visible on the shop assistant's t-shirt. The four 30-second advertisements depict shoppers going through various types of Apple smartphones and bring attention to negative features thereof, such as lack of storage. These consumers then casually mention

Samsung smartphones (the Galaxy S9 specifically) to be superior, as it does not lack those specific things that Apple smartphones do. Since the information within the advertisement is credible, it is believable — Samsung did not fabricate information in any way (Lelliot, 2018). The result of this advertising campaign was a greater reach for Samsung with user-generated content and consumer engagement. The publicity of the advertisement was a result of consumers being shocked that Samsung had the audacity to 'mock' Apple (Lelliot, 2018).

From Apple's perspective, their focus lies on two completely different strategies according to Patel (2021): product placement (especially by celebrities in TV shows) and word-of-mouth from positive reviews. Apple's marketing is usually emotional and focuses on brand personality and culture — advertising in such a way that people feel like they want to belong to the 'Apple community'.

Both of these brands are positioned differently in the market and in the minds of consumers. This could possibly be due to the mediation of their methods and contents of advertising. This is exactly what this study aimed to investigate by utilising one of Samsung's 'Ingenious' comparative advertisements and one of Apple's non-comparative advertisements during data collection.

3. METHODOLOGY

This section will discuss how research was conducted for this study. Firstly, the research paradigm structuring this study will be explained; thereafter, the research approach that was taken will be discussed in terms of the research category, type, and technique. This will be followed by a description of the target population that was reached, as well as the unit of analysis and a discussion of the sampling method and fieldwork utilised. Data collection and analysis will then be discussed in terms of secondary and primary research as well as a the research tool that was selected for the study.

3.1. Positivist paradigm

The chosen research paradigm in this study was the positivist paradigm, which is a position in the philosophy of science emphasising that in order to develop an understanding, the measurement of phenomena is critical (Fox, 2008); which means that observation is important when the ultimate goal is the growth of knowledge. An argument for positivism is that theories should be tested against data with the intention to possibly falsify them in order for improved theoretical models to replace them. Thus, science would contribute to a more accurate representation of the truth of phenomena and its causal relations. The positivist approach rejects non-observable sources of knowledge, since they are 'un-testable' and thus, unscientific (Fox, 2008).

3.1.1. Epistemology

Epistemology, according to Trochim (2021) is "the philosophy of knowledge." So, referring to epistemology, the goal of knowledge in this study was to describe what was being measured and stick to what was observed and measured only.

3.1.2. Ontology

Ontology is concerned with what exists or what 'is'. It helps researchers make 'truth claims' about the objects being researched (Moon and Blackman, 2017). Thus, when referring to ontology, reality in this study was seen as operated by the laws of cause and effect.

3.1.3. Methodology

The research methodology in terms of the positivist paradigm, referred to as methodological individualism, eliminated the complexity of the external world such as psychological and social linkages between variables to emphasis micro-level experimentation (Kaboub, 2008). Thus, conclusions were derived via a 'scientific' method to yield results with internal validity. Even though the results provided valuable insights, results from this methodology may lack external validity, which means that results in this micro-level experiment may not perform similarly in a more complicated external world with many interacting factors.

The reason why the positivist paradigm was the best fit for this research study is because the goal of the knowledge gathered in this study was simply to describe the phenomena gathered via research, by sticking to what was observed and measured only and to make inferences about the population based on the assumption that psychology, such as thoughts and emotions, could not be measured (Trochim, 2021). Thus, subjectivity and bias were removed from this study and it was conducted in an objective manner.

3.2. Approach to research

The approach to research will be discussed in terms of the research category and type, the research technique and the research approach.

3.2.1. Research category and type

The type of data that was collected to test the null hypotheses (found in Table 1) was quantitative data, which was used to measure concepts with numerical scales (Zikmund and Babin, 2016). The research type was descriptive, since it described characteristics of people by understanding a certain market situation; in this case, the use of comparative or non-comparative advertisements.

3.2.2. Research technique

A self-administered Internet questionnaire was the most sufficient data collection method for descriptive analysis, since it helped define the market segment. One reason for utilising a survey for this study was due to the criterion of the research objectives: to acquire objective results, since the hypotheses were related to the brand positioning in a market as determined by consumers and their view on comparative versus non-comparative advertisements. This meant that the research technique had to be one that describes public opinion by reaching consumers within the target market directly (Zikmund and Babin, 2016). Finally, a survey is relatively fast and cheap and gathers plenty of data in a short amount of time, and due to the time and cost constraints of this study, a survey questionnaire was used.

3.2.3. Research approach

A deductive approach to research was used in this study, since this was a scientific investigation of what others have done, paired with existing theory and phenomena to test the hypotheses. These hypotheses were later tested empirically to reach an outcome. Finally, this study was regarded as cross-sectional since data was collected from people at a given point in time across a sample population in the form of a survey questionnaire.

3.3. Population and sample

This subsection will discuss the population and sampling techniques that were used to create a sample from the population in order to conduct research.

3.3.1. Target population

A target population is the group of individuals the researcher intends to conduct research on and draw conclusions from (Barnsbee, Barnett, Halten and Nghien, 2018). The established applicable population of this study was residents of South Africa, above the age of 18. As of 10 November 2021, there were almost 39 million people over the age of 18 residing in South Africa (World Population Review, 2021). Naturally, this was not an accessible population. Thus, the population had to be generalised through sampling methods appropriate to the time and resource constraints of this study.

Pie charts were used to quantitatively describe the sample population reached, which formed part of descriptive analysis. These charts indicated that the sample consisted primarily of females, all above the age of 18.

The accessible population is the population to which researchers can apply their conclusions (Elite Institute, 2019). The observed and accessible population for this study were respondents who indicated that they do reside within South Africa on a permanent basis and own a device where they are able to watch advertisements. The sample should have contained a minimum of 30 people since it is a general rule of thumb for statistical researchers to use a sample size of at least 30 to be able to generalise the findings as accurately as possible to a population (Statistics Solutions, 2021). For this reason, it can be said that even though some statistical errors may have potentially occurred, the targeted population was well represented.

Thus, to summarise, the general population included all people that permanently reside in South Africa; the target population included all people that permanently reside in South Africa above the age of 18; and the accessible population included at least 30 people (n=30) that permanently reside in South Africa and are above the age of 18 who own a device where they are able to watch advertisements.

3.3.2. Unit of analysis

A unit of analysis is the focus of the study and the entity of which something is to be said about at the end of the study. The brand positioning of two brands are determined by the general public, which means that the primary unit of analysis in this study was the individual South African resident who owns a device where he/she is able to watch an advertisement. There were no secondary or tertiary units of analysis in this study.

3.3.3. Sampling method and fieldwork

Due to the broad target population for this study and, thus, no sampling frame being readily available, data was collected via non-probability sampling methods. Thus, the probability of any particular member of the population being chosen to participate was unknown, meaning that the researcher had to rely heavily on personal judgement as these methods can be quite arbitrary (Zikmund and Babin, 2016).

For this study, the non-probability sampling methods used were convenience sampling and snowball sampling. Convenience sampling allowed the researcher to select the most readily available group of respondents (Zikmund and Babin, 2016). Thus, a link to an online questionnaire was sent to a few initial respondents conveniently accessible to the researcher via social media networks such as WhatsApp, Facebook and LinkedIn. This method was justified via the lack of resources and its affordability as well as time-saving abilities when gathering data (Zikmund and Babin, 2016). The advantages of convenience sampling is that it is the most commonly used sampling method, it is less expensive and there is no need for a list of all population elements (Acharya, Prakash, Saxena and Nigam, 2013). However, even though it is the most used sampling method, it is not without limitations, as variability and bias cannot be measured or controlled and results cannot be generalised beyond the sample (Acharya *et al.,* 2013).

Snowball sampling, on the other hand, allowed the researcher to have respondents refer the study to individuals who may have an interest in participating in the study (Zikmund and Babin, 2016). Thus, after sending the questionnaire links to conveniently accessible respondents, the researcher requested from them to forward the link to individuals who they believe would be interested in participating in the study or to share the link on their social media platforms. Once again, a lack of resources justified the use of snowball sampling as well as its cost- and time-effectiveness and possibly reaching potential respondents whom the researcher is not acquainted with. The advantages of snowball sampling are its low cost and for its usefulness in specific circumstances; however, sampling units are not independent and may include bias, not allowing generalisation beyond the sample (Acharya *et al.,* 2013).

Due to the universality of social media, the sampling took place across the entire South Africa. The researcher has contacts available on these social media platforms who reside across various provinces. By collecting responses from South Africans only, the potential of demographics possibly skewing the data was reduced (Zikmund and Babin, 2016). Thus, if respondents answered that they do not permanently reside in South Africa, their responses would have been disregarded (there were no such responses). Survey responses were collected in the month of July and monitored daily until the researcher could see that no new responses had been recorded within a period of 48 hours. When this time lapsed without any new responses, the researcher closed the survey and concluded with 54 responses. The sample size was thus bigger than required for the sake of reliability, however, there was no need for a large sample in terms of accessibility (Delice, 2010). In the end, two of the 54 respondents were not above 18 years of age and were removed, narrowing the total respondents to 52.

There was only one stage of sampling (convenience sampling) after which snowball sampling took place simultaneously; which is why there were no secondary or tertiary sampling units. Typically, in multistage sampling, the sample gets smaller and smaller after each stage of sampling (Acharya *et al.*, 2013). However, in this case, the sample became larger since the convenience and snowball sampling took place simultaneously. Included in the survey were qualifying questions that relate to the eligibility of the respondent in taking part in the study, which ensured that the correct units of analysis were selected for the sample. Thus, only respondents above the age of 18 who have access to a device where he/she can watch an advertisement were selected as sampling units.

3.4. Data collection and analysis

In this subsection, the data collection methods used for this study will be discussed in terms of description and application by referring to empirical (primary) and non-empirical (secondary) data collection. Thereafter, the analysis of empirical data by the researcher will be explained in terms of which techniques were used and how it was implemented.

3.4.1. Data collection method

Data for this study was collected via secondary research as well as primary research by means of an online survey questionnaire. An in-depth explanation on the use and design of the questionnaire will follow along with an elaboration on the levels of measurement, reliability and validity applicable to the use of this method.

3.4.1.1. Non-empirical data collection

Non-empirical data includes data that had been previously recorded by someone else for a purpose external to this study (Zikmund and Babin, 2016). If relevant information on a research topic is available, it can be beneficial to the researcher as it is lower-cost and one can access relevant information faster than conducting primary research (Hox and Boeije, 2005). However, the researcher kept in mind that the data originally collected was for a different purpose than the one of the study conducted, and therefore may not have been the optimal choice (Hox and Boeije, 2005). Non-empirical data that provided the researcher with a wider sample base for testing interpretations was collected through digital databases such as Google Scholar, ResearchGate and EBSCO Host, which was accessible via the Vega School digital library. Key phrases related to the topics under investigation were used to find relevant sources which could be used to enhance the researcher's foundational knowledge and further expand the primary research to be conducted.

3.4.1.2. Empirical data collection

Empirical data was collected by the researcher for the specific problem at hand by using procedures that fit the specific research problem best (Hox and Boeije, 2005). In this case, empirical data was collected for comparative research. The most important advantage of collecting empirical data is that the entire strategy (operationalisation of theoretical constructs, research design and data collection) could be tailored to the specific research question, ensuring that the information indeed helped to solve the problem at hand (Hox and Boeije, 2005). However, collecting empirical data can be costly and time-consuming. Before the researcher started with the collection of empirical data, ethical clearance was given by the IIE Vega School Pretoria after submitting a research proposal entailing how the researcher planned on approaching the collection of data, along with a copy of the questionnaire and an ethical clearance document — this document can be found in Appendix B.

3.4.1.2.1. Internet questionnaire

Once ethical clearance was obtained, the next step was to collect the empirical data. This entailed finding new information relating to the sample group to confirm or deny the null hypotheses.

Due to the positivist paradigm being the foundation of this research study, empirical data was collected via a cross-sectional self-administered Internet questionnaire. A survey is characterised by a large number of standardised questions relating to the research problem which are asked to respondents; these responses are then coded in answer categories (Hox and Boeije, 2005). Typically, researchers use surveys to collect empirical data on observations, attitudes, feelings or opinions of a defined target population (Hox and Boeije, 2005). In the case of this study, all of these variables needed to be tested by the researcher, as well as data on the behaviour of respondents in terms of purchase behaviour. In principle, behaviour can be studied by observation, but this is often expensive and time-consuming (Hox and Boeije, 2005). Thus, the questionnaire rather included questions on past behaviour or hypothetical instances.

One major benefit of utilising a survey questionnaire is that individuals are considered formal or informal nodes of information, in a position to provide the researcher with informative responses and they may even point the researcher to other information sources (Hox and Boeije, 2005). The reason for using a self-administered Internet questionnaire was, however, mostly due to time- and cost-constraints — time is an especially crucial aspect to consider before collecting data. Thus, the researcher made sure to send the questionnaires out to potential respondents with enough time to compute and analyse the numerical data before the next deadline. Due to financial constraints, Google Forms was used to create and distribute the Internet questionnaire. Another reason for using an Internet questionnaire was the COVID-19 pandemic — the link to the questionnaire was sent to potential respondents instead of taking the risk of spreading the virus by physically distributing questionnaires. Once more, surveys can be completed by respondents in private, which means that they remain anonymous. In addition, it was a simpler way to distribute the questionnaire to potential respondents across the entire country and also a convenient and manageable tool for respondents to use.

3.4.1.2.2. Questionnaire design

The questionnaire was in English to ensure consistency within the survey and to not require any translation when exporting data to Excel. Originally, the researcher planned on sending two questionnaires to two different samples — one containing a comparative advertisement by Samsung, along with relevant questions and the other containing a non-comparative advertisement by Apple, along with similar questions. Instead, one single questionnaire was distributed to one single sample which contained both a link to a video of a Samsung comparative advertisement as well as a link to a video of an Apple non-comparative advertisement. The reason for changing the original idea was to simplify the data analysis step due to time constraints. Upon opening the link to the questionnaire, respondents initially saw a consent form entailing details of the researcher and some details on the study objectives, the completion time, the rights of respondents and the assurance of their anonymity. Respondents were also assured that their participation is voluntary and that they are welcome to withdraw from the study at any time without reason, even after agreeing to participate. The email address and cellphone number of the researcher was then provided, which respondents may have used for any questions or concerns. Finally, respondents were asked whether they understand the information provided and whether they agree to participate in the study. This consent form can be found in Appendix C.

The survey consisted of ten blocks: (i) consent, (ii) demographics, (iii) screening, (iv) attention level 1, (v) perceptual level 1, (vi) attitudinal level 1, (vii) attention level 2, (viii) perceptual level 2, (ix) attitudinal level 2 and (x) a conclusion-block (all level 1's referred to the Samsung comparative advertisement and all level 2's referred to the Apple traditional advertisement). Each block was labeled on Google Forms as "required" to be answered by respondents to not have any blank answers in the data. The survey opened with demographic and screening questions to ensure that the respondent matches the target population characteristics. If a respondent was not over 18 years of age or did not reside in

South Africa, they were automatically removed from participating and sent to an 'exit page' thanking them for their participation. In addition, the survey comprised questions relating to the hypotheses, which were compiled using pre-designed and pre-tested items from a study by Shimp and Dyer (1978). These questions supplied the researcher with enough data to analyse the potential differences between Samsung and Apple in terms of their comparative and traditional advertisements. These questions were sectioned according to the research objectives: Attention, Perception and Attitude. Originally, there was an open-ended question within the questionnaire, but it was later removed as open-ended questions pertain more to qualitative studies, and not quantitative studies.

Visuals are more powerful than text in terms of driving conversation and engagement: 90% of the information a brain processes is visual and most people only read 20-28% of words on a page (Alexis, 2018). Thus, after tweaking the questionnaire and before broadcasting the link, the researcher created a jpeg picture on Canva to draw more attention to the message, to make participation more appealing and to add credibility to the study — this picture can be seen in Appendix D. Also before broadcasting the link, the researcher sent a prototype to one individual to act as a pilot study. A pilot study is conducted on a smaller scale than the full-scale study, and is important to improve the quality of the main study (In, 2017). The researcher was sitting next to the individual while they read and answered the survey questions and asked him after each question if he understood the question and if there were any ambiguity. If there were, the researcher simplified the question (the answers of this pilot test did form part of the final sample). Once all questions were appropriate, the researcher then sent the link along with the picture and a description as described in section 3.3. Once a participant had completed the questionnaire, the number of respondents automatically updated on the Google Forms dashboard for the researcher to track. A copy of the survey questionnaire can be found as Appendix E.

3.4.1.2.3. Levels of measurement

Two main levels of measurement were used to develop the close-ended questionnaire: nominal and interval scales. The nominal scale of measurement was used to collect qualitative data from the respondents, which was collected from the demographic section as well as the first few screening questions. The interval scale that was used is a 5-point Likert scale, which was most frequently used and these questions were simple for respondents to understand and answer (Zikmund and Babin, 2016). These levels of measurement required coding for identification purposes and to retain the validity of the scale, which can be seen in Appendix F.

3.4.1.2.5. Reliability and validity

Validity is the extent to which a concept within a quantitative study is accurately measured (Heale and Twycross, 2015). Content validity looks at if the instrument used to collect data covered the entire domain related to the construct it was meant to measure (Heale and Twycross, 2015); which was brand positioning in this case. The content validity of the questionnaire was fair since it covered the questions relating to the construct of brand positioning; however, there was room for improvement since it did not cover the entire domain, but only some variables derived from the AIDA model specifically. However, when the construct was measured, the researcher was able to draw inferences about test scores in terms of the brand positioning of Apple versus Samsung.

The questionnaire was homogeneous since it measured one construct only: brand positioning. Thus, it was valid in terms of the construct. Whether the questionnaire had criterion validity can only be determined once this study has been concluded. The results of this study will be compared with the results of the study by Shimp and Dyer (1978) as well as one by Ogilvy and Mather (1975) in order to see if there is any correlation.

All in all, research bias did not impact the design of the questionnaire and there were no leading or loading questions. Also, the impact of the Hawthorne effect, when respondents may modify an aspect of their behaviour due to their awareness of being observed or assessed (Sedgwick and Greenwood, 2015), was reduced as much as possible, especially via the guarantee of their anonymity and the fact that respondents could complete the questionnaire in private. Finally, researcher bias was avoided by utilising the appropriate statistical approaches when analysing the data.

When evaluating the reliability of a study, one refers to the accuracy of an instrument; or the extent to which the instrument consistently gives the same results if used on repeated occasions in the same situation (Heale and Twycross, 2015). Reliability was reduced in this case due to the small sample size, meaning that the results of the study could not be accurately generalised to the larger population. Also, a representative sample can only be accomplished by drawing random samples from the population via specific sampling methods and, since this was impossible, results cannot be generalised to the larger population (Hox and Boeij, 2005). In addition, the representativeness of the sample is threatened by the use of an online questionnaire and possible non-response. Not only do respondents affect responses, but also question characteristics (Hox and Boeij, 2005), which is why the questionnaire was made as reliable as possible via homogeneity of questions — if a respondent disagreed with a particular statement in the questionnaire, he/she tended to disagree with the others.

3.4.2. Data analysis

The empirical data that was collected was drawn directly from Google Forms onto an Excel spreadsheet. All answers were replaced with the corresponding codes from the coding sheet (Appendix G) to acquire numerical data. This data sheet can be found in Appendix H. Descriptive analysis and inferential statistics was used to analyse the data and accept or reject the null hypotheses.

3.4.2.1. Descriptive analysis

The use of descriptive analysis provided the researcher with a quantitative summary of all data and information (Zikmund and Babin, 2016). This was the first technique used by the researcher to analyse the data from each question of the survey questionnaire. To effectively communicate the descriptive research results collected for all non-sampling questions, pie charts and bar graphs comparing the means or modes of the variables were used. The information was displayed in this manner: Attention level, Perceptual level and Attitudinal level (Shimp and Dyer, 1978) based on the AIDA model by St. Lewis (Wijaya, 2012). The Attention Level data was depicted in a pie chart due to its categorical nature; in other words, the variable could take on one of a limited and fixed number of possible values (Zikmund and Babin, 2016). These pie charts indicated the mode answer for each question pertaining to the Attention Level — identification and recall (Shimp and Dyer, 1978) — for both the Samsung comparative and Apple non-comparative advertisements.

The Perceptual and Attitudinal Level data were depicted in bar graphs due to its continuous nature; thus, it could take on two particular real values (in this case, ‘strongly agree’ or ‘strongly disagree’) such that it could also take on all real values between them via a Likert-scale which add the options of ‘agree’, ‘disagree’ or ‘neither agree nor disagree’ (Zikmund and Babin, 2016). One bar graph indicated the mean answers of all questions pertaining to Perceptual Level — interestingness, informativeness, believability, truthfulness and convincingness (Shimp and Dyer, 1978) — for both advertisements. A separate bar graph indicated the mean answers of all questions pertaining to Attitudinal Level — favourable attitudes and purchase intent (Shimp and Dyer, 1978) — for both advertisements.

Through this statistical analysis brief summaries of the data were made to, firstly, describe the profile of the sample and, secondly, the Attention, Perceptual and Attitudinal Levels. The means and modes of the data were discussed numerically and used to find descriptive results.

3.4.2.1. Inferential statistics

Inferential statistics were used to ultimately accept or reject the null hypotheses. Statistical inference concerns the estimation of population parameters and the testing of hypotheses (Sahu, Pal and Das, 2015). The task of inferential statistics was to help the researcher determine a reasonable conclusion about a population by examining a limited sample drawn from the population (Lowry, 1999). The phase of hypothesis testing entailed completing the seven hypothesis testing steps suggested by Zikmund and Babin (2016) for all eight hypotheses. The steps were as follows:

Step 1: Formulate the H_0 for each objective.

Eight H_0's were formulated. A null hypothesis is a type of hypothesis that proposes that there is no difference between a variable and a characteristic of a population (Hayes, 2021).

Step 2: Select the statistical technique.

Since one sample group completed the questionnaire on two different brands, a paired- sample t-test has been used (Bevans, 2020), which determined whether the mean difference between two sets of observations is zero. Basically, each subject was measured twice, which resulted in pairs of observations.

Step 3: Choose a confidence level.

The confidence level is an indication of the researcher's confidence of how the results are a true reflection of the population's opinions (Zikmund and Babin, 2016). Since the accessible sample of respondents did not perfectly match the target sample (it was heavily skewed towards females), a confidence interval of 90% was used to account for the sampling error. Thus, the significance level (or α/alpha) — the probability of rejecting the null hypothesis when it is true (Minitab Blog Editor, 2015) — is 0.1, which indicates a 10% risk of concluding that a difference exists when there is no actual difference. Also, smaller sample sizes tend to have wider confidence intervals (Fisher and Fethney. 2016), which is why an interval of 0.1 was used and not 0.05 (5%).

Step 4: Do the test.

The researcher conducted the t-test for each hypothesis using this formula (Bevans, 2020):

$$t = \frac{\overline{x}_1 - \overline{x}_2}{\sqrt{(}s^2(\frac{1}{n_1} + \frac{1}{n_2}))}$$

Step 5: Determine whether the hypotheses are directional or non-directional.

These hypotheses are non-directional, which means that they do not state the direction of the difference, it indicates only that a difference exists (Salkind, 2010). Thus, a two-tailed critical value was used to determine whether the hypotheses should be rejected or not.

Step 6: Compare the calculated t-statistic to the two-tailed t-value.

The researcher then drew up normal distributions for each hypothesis with the two-tailed t-values on both ends to determine whether the calculated t-statistic fell within or outside these critical values. If the calculated t-statistic fell in the rejection-region, the hypothesis was rejected.

Step 7: Accept or reject the H_0 for each objective.

Step 8: Explain the findings in marketing terms.

4. RESULTS/FINDINGS AND INTERPRETATION

This section will present and interpret the findings found of research conducted to investigate the difference between the brand positioning of two brands (Apple and Samsung), based on their use of comparative advertising. The problem of this study was whether companies should utilise comparative advertisements for their products, and whether the use of these advertisements will in any way result in them being better positioned in the market by consumers, especially since comparative advertisements are perceived so differently.

4.1. Presentation of findings

This link can be followed to access the consent letter and questionnaire: https://forms.gle/bohycvBevf3v6wro7. Alternatively, find the questionnaire in Appendix E, the consent form in Appendix C, and the ethical clearance document in Appendix B.

4.1.1. Profile of sample studied

The figures in this subsection summarises the sample population reached by quantitatively depicting the results of the demographic and screening questions.

Figure 2: Respondents over 18 years of age.

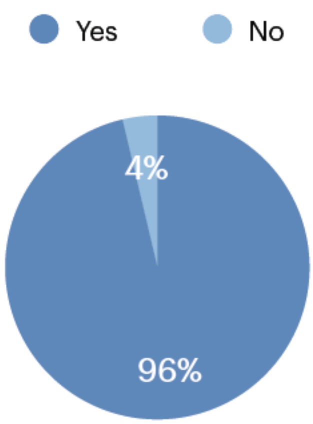


Figure 2 indicates that most respondents (52 of 54 respondents) were above the age of 18. This demographic question was used to determine whether respondents' answers would be analysed. Those who indicated "No" were removed from the sample. Two respondents (4%) were underaged and were removed from the sample.

Figure 3: Gender of respondents.

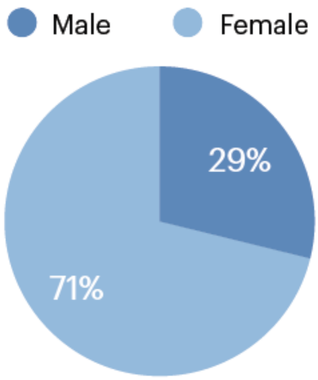
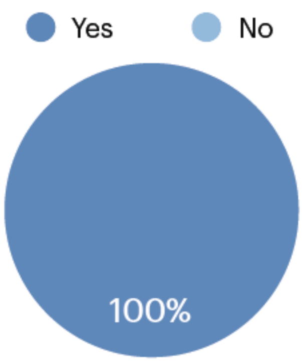


Figure 3 above confirms that that 71% of respondents were female and only 29% were male, which meant that the answers to the questionnaire were skewed to female opinions and experiences. As explained in the problem statement, more women are opposed to comparative advertisements than men are (Brabbs, 2001, cited in Williams and Page, 2013). No respondent indicated that they are non-binary.

Figure 4: Permanent South African residence.



Considering Figure 4 above, it is evident that all of the respondents answered that, yes, they do permanently live in South Africa. This screening question was used to determine whether respondents' answers would be analysed. Those who would have indicated “No” would have been removed from the sample.

Figure 5: Respondents who own a device where they are able to watch advertisements.

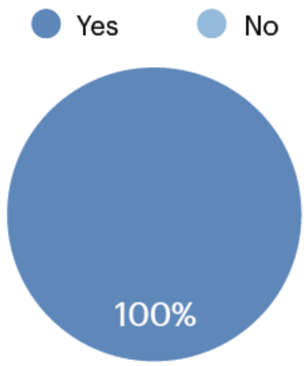
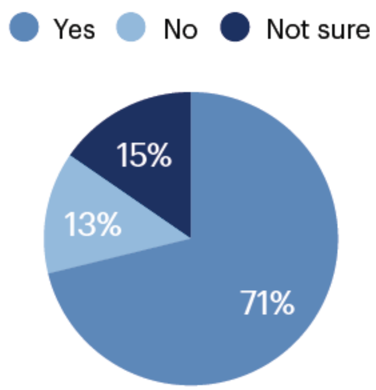


Figure 5 indicates that all of the respondents own a device where they are able to watch advertisements such as a smartphone, television or computer. If a respondent did not have such a device, he or she would not have been able to participate in the study as it required the respondent to watch two YouTube videos.

Figure 6: Have they recently seen comparative advertisements.



Considering Figure 6 above, it is evident that most of the respondents (71%) answered that they have recently seen a comparative advertisement, whether direct or indirect, whereas only 13% answered that they have not and 15% are unsure.

Figure 7: How regularly they see comparative advertisements.

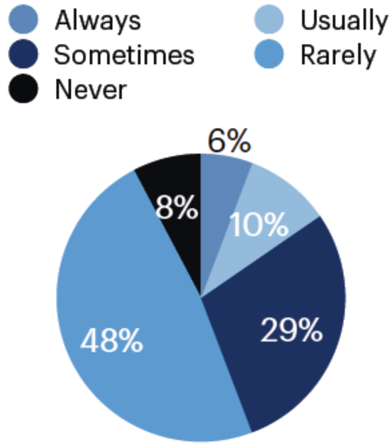


Figure 7 above confirms that most respondents (48%) answered that they rarely see comparative advertisements. 29% of respondents only sometimes see comparative advertisements, 10% indicated that they usually see them, 8% indicated that they never see then and 6% indicated that they always see comparative advertisements. When referring to the coding sheet in appendix G, the mean answer was 2,56.

Figure 8: Personal acceptance of comparative advertisements.

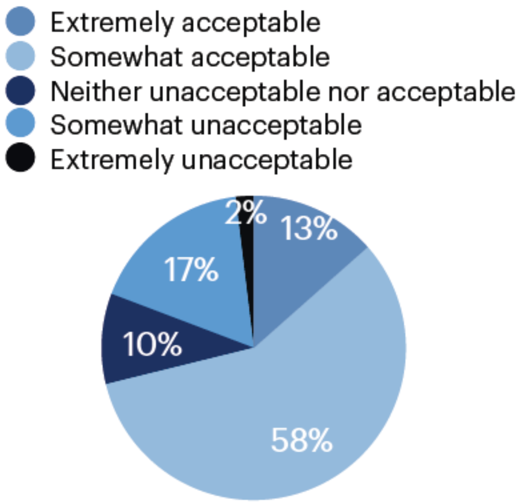
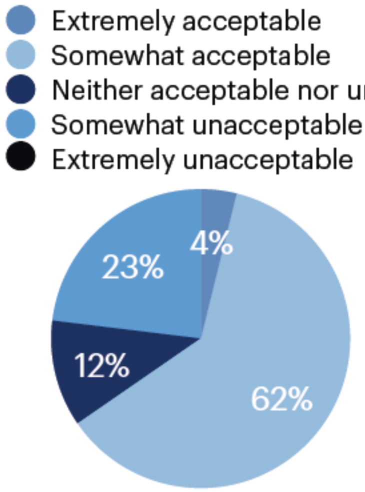


Figure 8 above indicates that most respondents (58%) answered that they personally believe that comparative advertisements are somewhat acceptable. Thereafter, 17% indicated that they personally believe that comparative advertisements are somewhat unacceptable, 13% indicated extremely acceptable, 10% indicated neither acceptable nor unacceptable and 2% indicated extremely acceptable. When referring to the coding sheet in appendix G, the mean answer was 3,64.

Figure 9: Assumption of general public's acceptance of comparative advertisements.



As Figure 9 indicates, most respondents (62%) answered that comparative advertisements are somewhat acceptable to the general public. Thereafter, 23% indicated that comparative advertisements are somewhat unacceptable to the general public. 12% indicated neither acceptable nor unacceptable, 4% indicated extremely acceptable, and no respondents indicated extremely acceptable. When referring to the coding sheet in appendix G, the mean answer was 3,46.

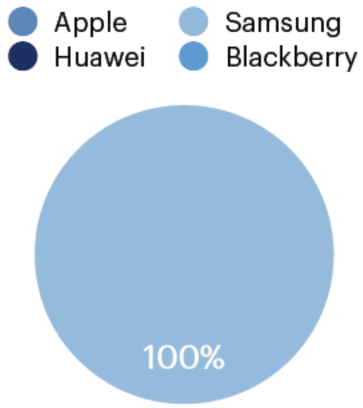
4.1.2. Descriptive statistics

To effectively communicate the descriptive research results for non-sampling questions, pie charts and bar graphs were used. The information will be displayed according to Attention, Perceptual and Attitudinal levels (refer to the coding sheet in Appendix G) which were retrieved from a similar study by Shimp and Dyer (1978) and based on the AIDA model by Lewis (Wijaya, 2012).

4.1.2.1. Attention level

The two indicators of attention that were measured were the ability of consumers to correctly identify the sponsoring brands and to correctly recall core points within the advertisements.

Figure 10: Identification of Samsung.



The result for the question pertaining to identifying Samsung correctly in the comparative advertisement is indicated in Figure 10. All respondents could correctly identify Samsung; thus, no respondents chose any of the other options (Apple, Huawei or Blackberry) for this question. Huawei and Blackberry were added to the list of options as attention checks, which are items usually embedded in a survey with an obvious correct response (Kung, Kwok and Brown, 2018). In this case, Huawei and Blackberry are obvious wrong responses as those two brands were not at all mentioned, and were inserted to identify careless respondents to allow the researcher to screen them out prior to analysing data (Kung, Kwok and Brown, 2018).

Figure 11: Identification of Apple.

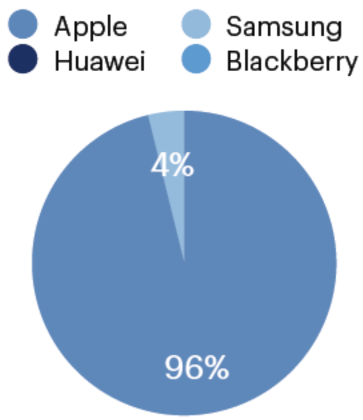


Figure 11 indicates the results for the question pertaining to identifying Apple correctly in the non-comparative advertisement. Only 96% of respondents could correctly identify Apple and 4% of respondents incorrectly identified Samsung. In addition, no respondents selected Huawei or Blackberry for this question.

Figure 12: Recall of Samsung.

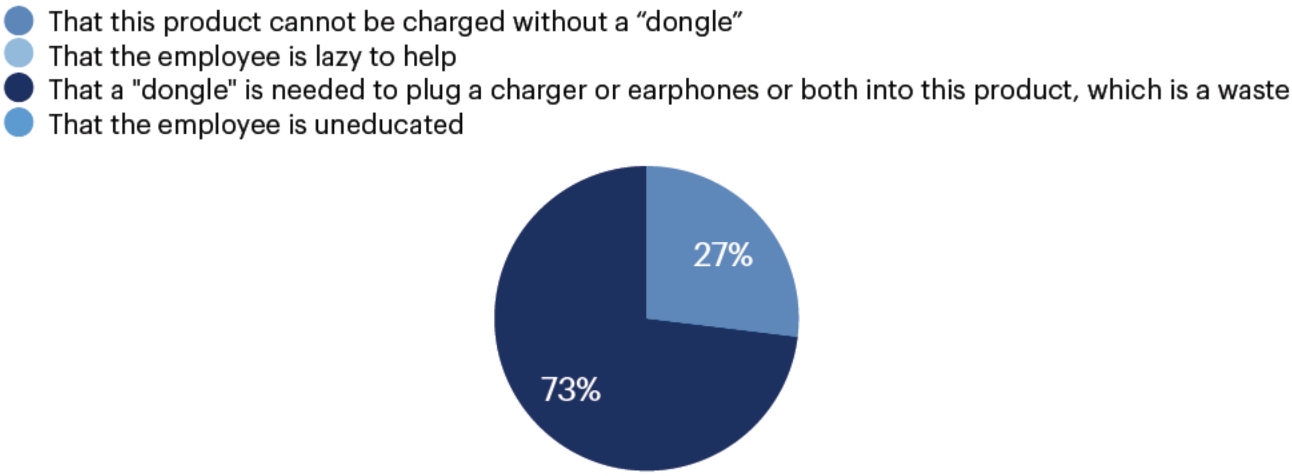
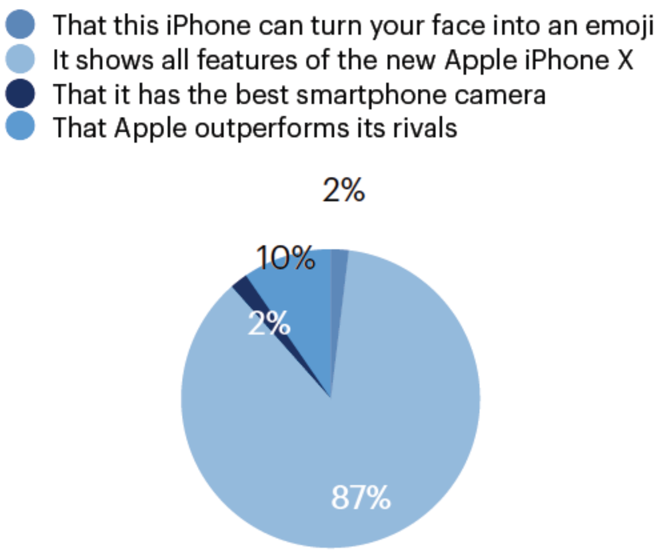


Figure 12 indicates the results for the question pertaining to being able to correctly recall the core points in the comparative advertisement. The correct core point was "That a 'dongle' is needed to plug a charger or earphones or both into this product, which is a waste," and 73% of respondents could correctly identify this. 27% of respondents selected "That this product cannot be charged without a dongle," and no respondents selected the other two options.

Figure 13: Recall of Apple.



The results for the question pertaining to being able to correctly recall the core points in the non-comparative advertisement is indicated in Figure 13. The correct core point was "It shows all features of the new Apple iPhone X," and 87% of respondents could correctly identify this. 10% of respondents selected "That Apple outperforms its rivals", 2% selected that "This iPhone can turn your face into an emoji", and another 2% selected "That it has the best smartphone camera."

4.1.2.2. Perceptual level

Perception was measured with Likert scales by measuring informativeness, interestingness, believability and truthfulness and convincingness.

Figure 14: A comparison of respondents' average perception between Samsung and Apple.

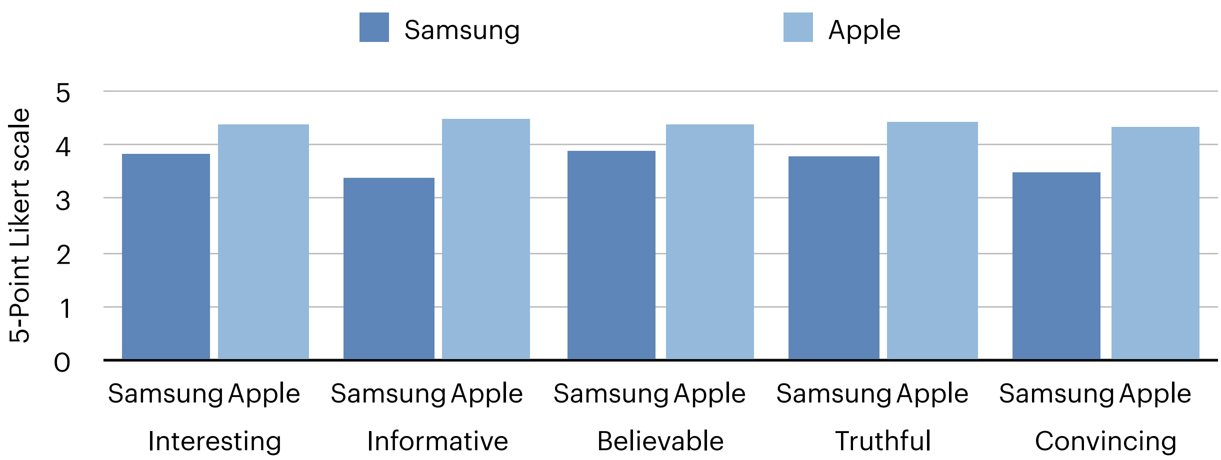
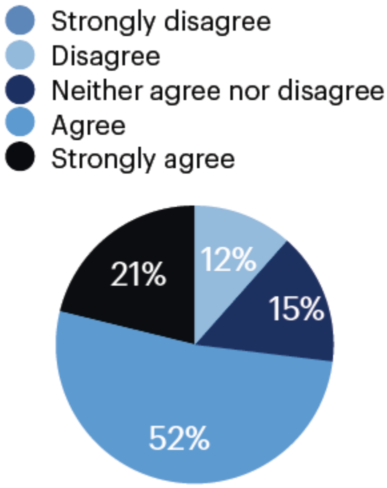


Figure 13 portrays the means of the 5-point Likert scales for each question pertaining to the perceptual level.

In terms of interestingness, the mean for Samsung is 3.83 and the mean for Apple is 4,38.

Figure 15: Samsung interestingness (comparative).



Considering Figure 15 above, it is evident that no respondents strongly disagreed that the Samsung comparative advertisement was interesting; however, 12% indicated that they disagree. In addition, 15% neither agreed nor disagreed that the Samsung comparative advertisement was interesting, 52% agreed and 21% strongly agreed.

Figure 16: Apple interestingness (non-comparative).

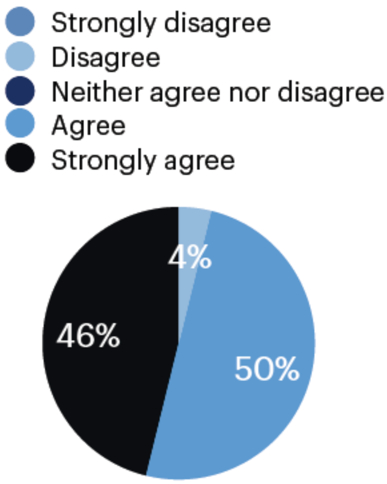


Figure 16 confirms that no respondents strongly disagreed that the Apple non-comparative advertisement was interesting; however, 4% indicated that they disagree. In addition, 50% agreed that the Apple non-comparative advertisement was interesting, 46% strongly agreed and no respondents neither agreed nor disagreed.

In terms of informativeness, the mean for Samsung is 3.40 and the mean for Apple is 4.5 (Figure 14).

Figure 17: Samsung informativeness (comparative).

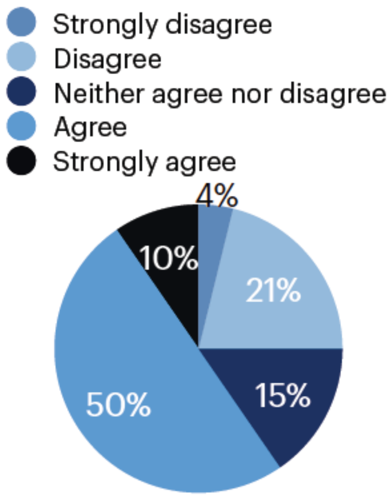
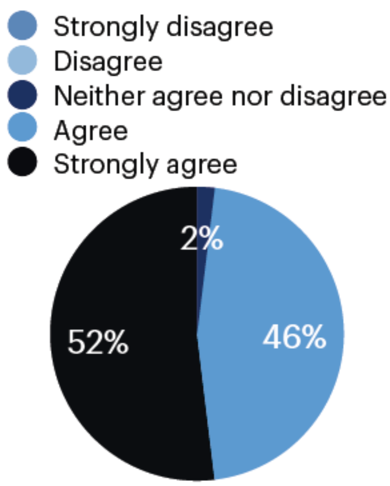


Figure 17 indicates that 4% of respondents strongly disagreed that the Samsung comparative advertisement was informative; and 21% indicated that they disagree. In addition, 15% neither agreed nor disagreed that the Samsung comparative advertisement was informative, 50% agreed and 10% strongly agreed.

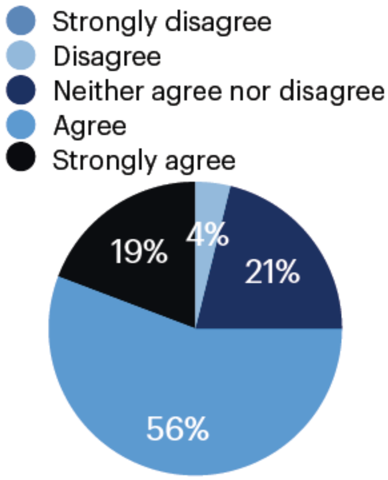
Figure 18: Apple informativeness (non-comparative).



According to Figure 18, no respondents strongly disagreed or disagreed that the Apple non-comparative advertisement was informative. In addition, 2% neither agreed nor disagreed that the Apple non-comparative advertisement was informative, 46% agreed and 52% strongly agreed.

In terms of believability, the mean for Samsung is 3.90 and the mean for Apple is 4.39 (Figure 14).

Figure 19: Samsung believability (comparative).



Considering Figure 19 above, no respondents strongly disagreed that the Samsung comparative advertisement was believable; however, 4% indicated that they disagree. In addition, 21% neither agreed nor disagreed that the Samsung comparative advertisement was believable, 56% agreed and 19% strongly agreed.

Figure 20: Apple believability (non-comparative).

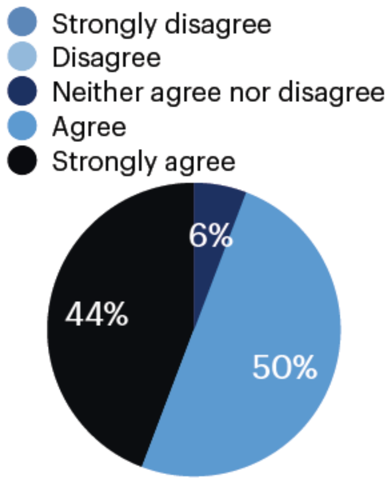
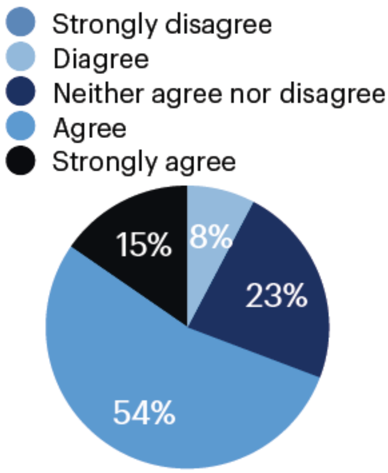


Figure 20 above confirms that no respondents strongly disagreed neither disagreed that the Apple non-comparative advertisement was believable. In addition, 6% neither agreed nor disagreed that the Apple non-comparative advertisement was believable, 50% agreed and 44% strongly agreed.

In terms of truthfulness, the mean for Samsung is 3.77 and the mean for Apple is 4.40 (Figure 14).

Figure 21: Samsung truthfulness (comparative).



According to Figure 21, no respondents strongly disagreed that the Samsung comparative advertisement was truthful; however, 8% indicated that they disagree. In addition, 23% neither agreed nor disagreed that the Samsung comparative advertisement was truthful, 54% agreed and 15% strongly agreed.

Figure 22: Apple truthfulness (non-comparative).

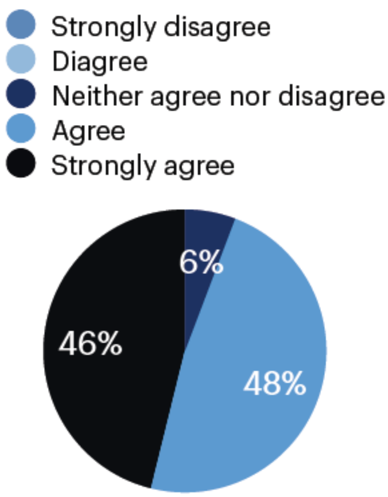
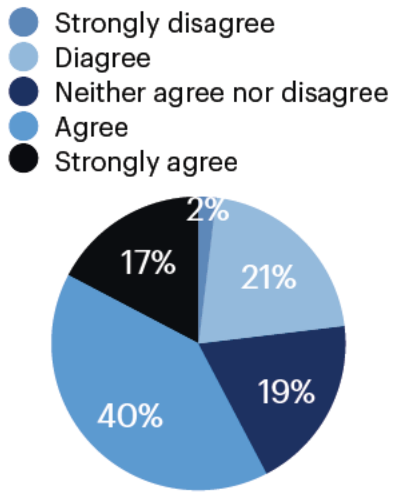


Figure 22 confirms that no respondents strongly disagreed nor disagreed that the Apple non-comparative advertisement was truthful. In addition, 6% neither agreed nor disagreed that the Apple non-comparative advertisement was truthful, 48% agreed and 46% strongly agreed.

Finally, in terms of convincingness, the mean for Samsung is 3.5 and the mean for Apple is 4.35 (Figure 14).

Figure 23: Samsung convincingness (comparative).



Considering Figure 23, 2% of respondents strongly disagreed and 21% disagreed that the Samsung comparative advertisement was convincing. In addition, 19% neither agreed nor disagreed that the Samsung comparative advertisement was convincing, 40% agreed and 17% strongly agreed.

Figure 24: Apple convincingness (non-comparative).

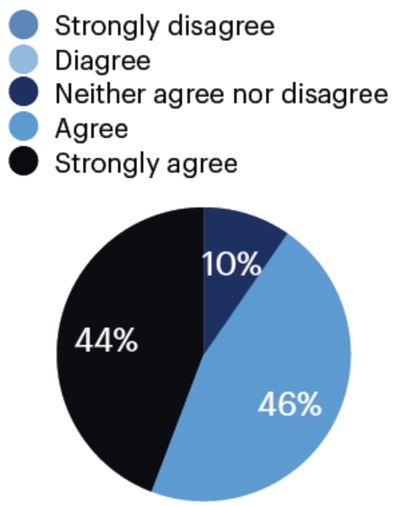


Figure 24 confirms that no respondents strongly disagreed nor disagreed that the Apple non-comparative advertisement was convincing. In addition, 10% neither agreed nor disagreed that the Apple non-comparative advertisement was convincing, 46% agreed and 44% strongly agreed.

This data in Figure 14 stipulates that most respondents ‘agreed’ that the Samsung comparative advertisement was interesting, informative, believable, truthful and convincing. However, most respondents ‘strongly agreed’ that the Apple non-comparative advertisement was interesting, informative, believable, truthful and convincing. Thus, respondents rated Apple (non-comparative) significantly higher than Samsung (comparative) in terms of perception.

4.1.2.3. Attitudinal level

Favourable attitudes and positive buying intentions was measured by Likert scales to measure consumer disposition towards the advertisements.

Figure 25: A comparison of respondents' average attitudes between Samsung and Apple.

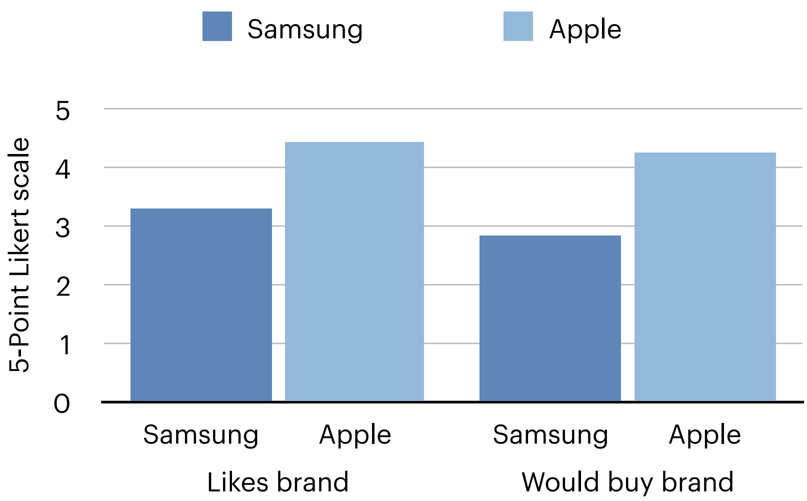
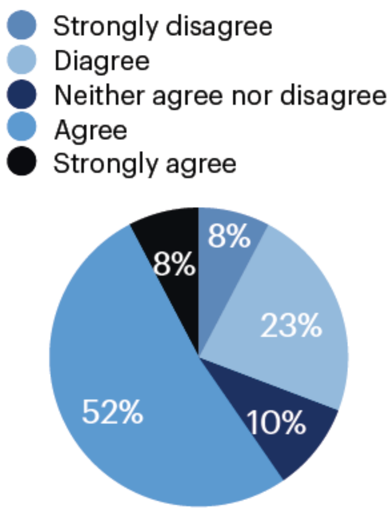


Figure 25 above confirms that the means of the 5-point Likert scales for each question pertaining to the attitudinal level in terms of whether they like the brand as a product in general and whether they would go to the brand’s store to purchase its products if one were near.

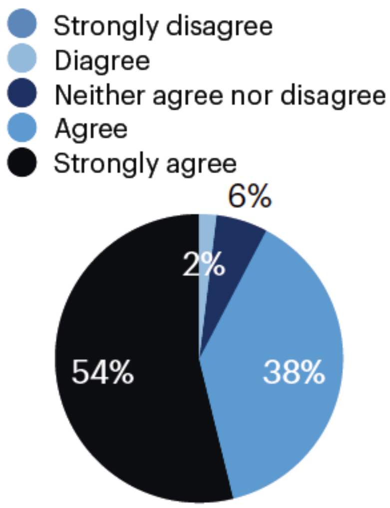
In terms of whether the respondents like the brand as a product, the mean for Samsung is 3.29, whereas the mean for Apple is 4.5.

Figure 26: Respondents like Samsung as a product (comparative).



When considering Figure 26, 8% of respondents strongly disagreed and 23% disagreed that they like Samsung as a product. In addition, 10% neither agreed nor disagreed that they like Samsung as a product, 52% agreed and 8% strongly agreed.

Figure 27: Respondents like Apple as a product (non-comparative).



Considering Figure 27, it is evident that no respondents strongly disagreed and 2% disagreed that they like Apple as a product. In addition, 6% neither agreed nor disagreed that they like Apple as a product, 38% agreed and 54% strongly agreed.

In terms of whether the respondents would go to the brand's store to purchase its products if one were near, the mean for Samsung is 2.83, whereas the mean for Apple is 4.27.

Figure 28: Respondents would go to a Samsung store to purchase its products (comparative).

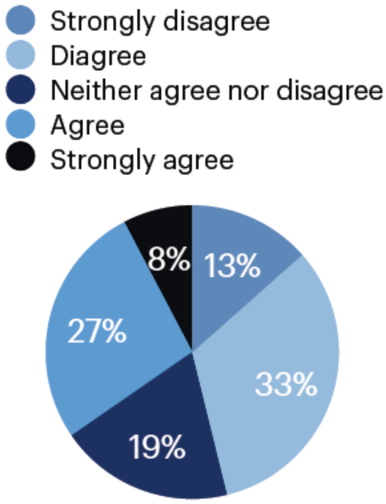


Figure 28 indicates that 13% of respondents strongly disagreed and 33% disagreed that they would go to a Samsung store to purchase its products. In addition, 19% neither agreed nor disagreed that they would go to a Samsung store to purchase its products, 27% agreed and 8% strongly agreed.

Figure 29: Respondents would go to an Apple store to purchase its products (comparative).

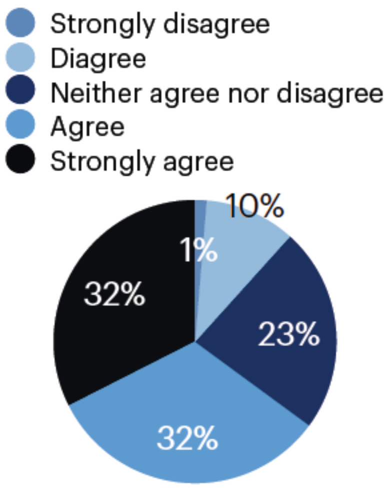


Figure 29 makes it evident that 1% of respondents strongly disagreed and 10% disagreed that they would go to an Apple store to purchase its products. In addition, 23% neither agreed nor disagreed that they would go to an Apple store to purchase its products, 32% agreed and 32% strongly agreed.

Respondents rated Apple (non-comparative) significantly higher than Samsung (comparative) in terms of attitude.

4.2. Interpretation of findings

In this section, the findings of the descriptive analysis will be interpreted to acquire useful and usable information.

4.2.1. Profile of sample studied

The questionnaire asked if the respondents were over 18 years to determine whether they qualify to participate; thus, it was not possible to discern exact ages or generations, which may cause limitations on final result interpretations. Also, since most respondents were female, gender bias may skew the results. More females than males find comparative advertisements unacceptable (Etgar and Goodwin, 1978), which is why results may be skewed to favour the non-comparative advertisement. In addition, the 15,39% who answered that they are unsure whether they have seen any comparative advertisement may skew results as it is possible that they do not understand what comparative advertisements are, even though a definition was given in the questionnaire. Most respondents said that they rarely see any comparative advertisements, this could be because comparative advertisements are illegal in South Africa, but they may have seen comparative advertisements of international brands. Finally, the answers for questions S4 and S5 indicate that some respondents believe that comparative advertisements are more acceptable to the general public than it is to them personally.

4.2.2. Attention level

The two indicators of Attention used by Shimp and Dyer (1978) were the ability of consumers to correctly identify the sponsoring brands and to recall core points within the advertisements. Usually, the comparative advertisement would spark more confusion around who the sponsor of the advertisement is, since more than one brand was mentioned. However, all respondents could correctly identify Samsung as the sponsoring brand of the comparative advertisement. Even though the non-comparative advertisement did clearly refer to Apple as the sponsor, and it may be possible that by the time that the survey reached the second video, 4% of respondents ended up guessing the sponsoring brand wrongly as Samsung. Thus, there could be a case of respondent bias in the form of habituation bias, which occurs when questions were repetitive or phrased similarly, as in this questionnaire. This lowers assertiveness and may cause respondents to answer questions based on similar previous questions (Chipeta, 2020).

In terms of recall, more respondents could recall the main idea of the Apple non-comparative advertisement than they could the Samsung comparative advertisement. This could be because the core focus was on one brand only, whereas the comparative advertisement focused more on the competing brand (Apple) than on the sponsoring brand (Samsung). This question could also pertain to researcher bias, as it was the researcher who constructed the four multiple choice options.

In this case, confusion between brands is not increased via comparative advertising, and misidentification does not occur. Thus, comparative advertising does not necessarily affect a brand's positioning on consumers' attention level, as results for both brands were similar.

4.2.3. Perceptual and attitudinal level

The Perceptual dimensions that Shimp and Dyer (1978) utilised were (i) informativeness, (ii) interestingness, (iii) believability, (iv) truthfulness and (v) convincingness. In the Attitudinal level, one wanted to investigate whether the directness of comparative advertisements had an impact on consumers' acceptance of message claims in that it resulted in positive buying intentions. These variables were used to test whether comparative advertising is more or less effective than non-comparative advertising in accomplishing reactions from advertising receivers.

It was clear that the respondents rated Apple (non-comparative) higher than Samsung (comparative) for all of these variables.

Firstly, this could be because the comparative advertisement did not focus on many features of the Samsung Galaxy, but more on how the Apple iPhone X is inferior to it; whereas the detailed descriptions and visualisation of the iPhone X in the Apple non-comparative advertisement could have resulted in respondents favouring the Apple brand. This finding could also pertain to respondent bias, as it is possible that most respondents could have been loyal Apple customers, skewing their answers. Secondly, it may be that most consumers were put off by the comparative advertisement (because of loyalty to the Apple brand or the mostly female sample), resulting in the respondents favouring the non-comparative Apple advertisement.

It is clear that respondents positioned Apple better than Samsung, especially since all of these variables were rated as 'strongly agree' for the non-comparative advertisement (Figures 14 and 25). The attitudinal level specifically spoke to brand positioning, since this translates into brand loyalty, repeat purchase, and revenue.

4.2.4. Inferential statistics

To infer the data from the sample to the bigger population, inferential statistics were used. The steps that the researcher followed and the respective normal distributions can be found in Appendix I.

Based on these distributions and solutions, the researcher has accepted or rejected the H_0 for each objective to determine whether there is a difference in certain variables depending on a brand's use or non-use of comparative advertising, which will be explained in the next subsection.

4.3. Findings in context

The results and findings of the study will be explained in context with those of the key seminal authors used for this study, especially Shimp and Dyer (1978), with extra information from a study by Ogilvy and Mather (1975).

4.3.1. Attention level

In terms of identification, the results of Shimp and Dyer’s (1978) study revealed that respondents could identify the sponsoring brand correctly more (though not significantly more) when a comparative advertisement was used. This result correlates with this study. Ogilvy and Mather (1975) has reported countering results: brand misidentification is greater for comparative than non-comparative ad formats. Further research is clearly required in this instance.

In terms of recall, in Shimp and Dyer's (1978) study, the highest average correct recall occurred in the non-comparative advertisement. This correlated with this study, meaning that non-comparative advertising is superior to comparative advertising in promoting the recall of core points. From this finding, it can be said that if an advertiser’s objective is to promote recall of core points, less information should be presented in a comparative advertisement.

4.3.2. Perceptual level

In terms of interestingness, respondents in Shimp and Dyer’s (1978) study found comparative advertisements more interesting than non-comparative. Due to the novelty of comparative advertisements, this was expected. This is contrary to what this study has revealed. More research is required in this instance.

With regards to informativeness, respondents in Shimp and Dyer’s (1978) study responded similarly to respondents in this study as they indicated that the non-comparative advertisement was slightly (not significantly) more informative than the comparative advertisement. In this study, however, the difference is significant. This concurs to what Ogilvy and Mather (1975) believes, that comparative advertising can be perceived as an ambiguous and confusing advertising format and is less informative than a non-comparative advertising format.

Considering believability, Ogilvy and Mather (1975) believe that the widespread use of comparative advertising would reduce the credibility and effectiveness of the advertisement and increase distrust in the brand. Both this study and Shimp and Dyer’s (1978) concurs to this belief, as respondents regarded the non-comparative advertisements as more believable. Thus, if the use of comparative advertisements were to be increased by a brand, their credibility may diminish. However, both these studies involved a single product category, restricting generalisations. Here is an opportunity to test other product categories.

Truthfulness aligns closely with believability, as similar results were obtained. Comparative advertisements were perceived as less truthful than non-comparative ones in this study as well as Shimp and Dyer's (1978).

In terms of convincingness, the non-comparative advertisement was perceived as significantly more convincing by respondents in this study. However, in Shimp and Dyer's (1978), neither comparative nor non-comparative advertising was found as superior. The difference in results could be brand-specific.

It is clear that Apple (non-comparative) is better positioned by respondents in terms of perception. However, there is a possibility that results could have been biased due to respondents' brand loyalty to Apple. In future, researchers should consider asking respondents which smartphone brands they are loyal to to be able to determine if this is true or use a less brand-loyal industry.

4.3.3. Attitudinal level

In this study, the respondents had significantly more favourable attitudes towards the non-comparative advertisement. This result correlates to the result in Shimp and Dyer's (1978) study, although more significant. In addition, the respondents of this study rated a higher purchase intention towards the non-comparative advertisement; whereas in Shimp and Dyer's (1978) study no significant difference in purchase intentions could be found.

It is clear that Apple (non-comparative) is better positioned by respondents in terms of attitude. However, the results could once again possibly be skewed due to brand loyalty.

The most probable conclusion from this section is that the mode of advertising, specifically in terms of comparative versus non-comparative advertising, does not play much of a role in the positioning of a product in the minds of consumers; but rather the product itself in terms of its benefits and the emotional connection consumers create with the brand.

4.4. Validity, reliability and trustworthiness

The researcher was able to draw valid inferences of the brand positioning of Apple versus Samsung in terms of their use of comparative advertising. The criterion validity of this study is debatable, since some inferences made in this study correlates with the study by Shimp and Dyer (1978) as well as the study by Ogilvy and Mather (1975), but other inferences do not correlate with either studies. Thus, to ensure content validity, further research is required, especially in terms of those variables that did not correlate such as identification, interestingness and purchase intent — which are the variables with the lowest level of correlation. Also, scale validity was achieved due to the insertion of question checks, which are items usually embedded in a survey with an obvious correct response (Kung, Kwok and Brown, 2018). No respondents selected these obvious wrong responses that were inserted into the questionnaire, proving its scale validity.

The small sample size of 52 reduces the reliability of the study, as the results cannot be accurately generalised to the larger population. Thus, the sample is not representative due to the sampling methods — convenience and snowball sampling.

The trustworthiness of a quantitative study refers to the degree to which a researcher can trust its results (Zeng and Zio, 2017). According to Zeng and Zio (2017: 18), six quality criteria are identified as the factors most influencing the trustworthiness of a quantitative study: (i) completeness of documentations, (ii) understanding of problem settings, (iii) coverage of accident scenarios, (iv) appropriateness of analysis methods, (v) quality of input data, and (vi) accuracy of risk calculations. The most important document of this study was the online survey questionnaire, which was completed in full by all respondents, reducing the threat to the validity, reliability and trustworthiness of the study. In addition, the researcher understands the problem setting in terms of the problem statement, and has ensured that the questionnaire was crafted in such a way that it was easy for respondents to understand. In addition, the analysis methods (descriptive analysis and inferential statistics) were appropriate for a quantitative study while taking into consideration the time and resource constraints involved. Also, since the data was effectively coded, the quality thereof and the accuracy of any calculations are assured. Thus, the results of thus study can be trusted by the researcher based on the criteria (Zeng and Zio, 2017); however, there were some limitations within this study (discussed in the following section) which will require further research.

5. CONCLUSION

This research investigated the difference between the brand positioning of Apple and Samsung, based on their use of comparative advertising. It attempted to address the problem of whether companies should utilise comparative advertisements for their products and services, and whether the use of these advertisements will result in them being better positioned in the market by consumers, especially since comparative advertisements are perceived so differently. This section will accept or reject the research hypotheses by referring to the inferential statistics conducted in Appendix I. Thereafter, the limitations of this study and recommendations for possible future research as well as its future contributions will be discussed. This section will then conclude with the research questions and the success of the research.

5.1. Conclusions on research hypotheses

In this subsection, the null hypotheses will either be accepted or rejected based on the inferential statistics calculated in Appendix I.

$H_0 1$ and $H_0 2$ relate to the attention level of consumers, and will be accepted or rejected based on the mode answers of the Attention level questions.

$H_0$1	The identification of two brands does not differ based on their use of comparative advertising.

$H_0 1$ should be accepted, since most respondents could easily identify both sponsoring brands. Thus, the identification of two brands does not differ based on their use of comparative advertising.

$H_0$2	The recall of two brands does not differ based on their use of comparative advertising.

$H_0 2$ should be accepted, since most respondents were able to recall the main ideas of each advertisement. Thus, the recall of two brands does not differ based on their use of comparative advertising.

$H_0$3 to $H_0$8 will be accepted or rejected based on the results of the t-tests in Appendix I.

$H_0$3	The interestingness of two brands does not differ based on their use of comparative advertising.

$H_0$3 should be rejected since the calculated t-value (-3,41) for *interestingness* falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, the interestingness of two brands does differ based on their use of comparative advertising.

$H_0$4	The informativeness of two brands does not differ based on their use of comparative advertising.

$H_0$4 should be rejected since the calculated t-value (-6) for *informativeness* falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, the informativeness of two brands does differ based on their use of comparative advertising.

$H_0$5	The believability of two brands does not differ based on their use of comparative advertising.

$H_0$5 should be rejected since the calculated t-value (-3,61) for *believability* falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, the believability of two brands does differ based on their use of comparative advertising.

$H_0$6	The truthfulness and convincingness of two brands does not differ based on their use of comparative advertising.

$H_0$6 should be rejected since the calculated t-value (-4,71 and -4,85) for *truthfulness* and *convincingness* alternatively falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, the truthfulness and convincingness of two brands does differ based on their use of comparative advertising.

$H_0$7	Favourable attitudes towards two brands does not differ based on their use of comparative advertising.

$H_0$7 should be rejected since the calculated t-value (-5,45) for *favourable attitudes* falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, favourable attitudes towards two brands does differ based on their use of comparative advertising.

$H_0$8	Purchase intent towards two brands does not differ based on their use of comparative advertising.

$H_0$8 should be rejected since the calculated t-value (-6,17) for *purchase intent* falls to the left of the lower (-1,697) critical value on the normal distribution. Thus, the purchase intent towards two brands does differ based on their use of comparative advertising.

5.2. Ethical concerns

Since this study was not based on a sensitive topic and no major concerns in this regard were foreseen, ethical considerations were simple to take into account. This study abided to IIE's standards of ethics in research. This study did not pertain to any bias or discrimination; permission was obtained from all respondents before collecting data and informed consent was acquired; the researcher ensured that all respondents were above the age of 18; respondents' anonymity and confidentiality in answering the questionnaires were ensured; participants in the study were given a right to withdraw at any stage during the process of collecting data; participants' autonomy were ensured as there was no outside influence on their answering of questions; respect and consideration was displayed during the entire process and the common good was promoted in this research study.

5.3. Limitations and recommendations for future research

Each research methodology offers limitations that must be known to researchers. Quantitative research offers quite a few, especially when making use of a survey questionnaire and a small sample. Choy (2014, cited in Queirós, Faria, and Almeida, 2017) concluded in his study of strengths and weaknesses of qualitative and quantitative studies that he advocates for the use of a hybrid approach via the use of both qualitative and quantitative approaches to provide better results than the use of only one methodology would offer. Due to the time constraints of this study, this was not possible and thus, by utilising only a quantitative approach via a close-ended survey questionnaire, the researcher was limited as it was not possible to capture emotions, behaviour and change of emotions from respondents (Queirós, Faria, and Almeida, 2017), which a qualitative approach would have been able to capture. Thus, it is recommended to use a hybrid-approach of both quantitative and qualitative research in future studies if time allows. In addition, the use of a survey questionnaire is threatening to the reliability of the data as it is dependent on both the survey's structure and the accuracy of respondents' answers (Queirós, Faria, and Almeida, 2017).

When considering the questionnaire itself, there were some factors limiting the research results. Firstly, the questionnaire did not ask respondents if they utilise any Apple or Samsung products. Since Apple is clearly better positioned than Samsung by consumers in the market, it would have been valuable to know whether there was any respondent bias involved in the answering of questions pertaining to their loyalty to one of the two brands. Perhaps in future research on this topic, researchers could use less well-known brands or a less brand-loyal industry. Also, the target population was too large to be accessible, and there was no sampling frame available, thus, the researcher had to resort to using non-probability sampling methods which limited the researcher to generalise the findings from the sample to the larger population. Convenience sampling limits the results as variability and bias cannot be controlled, and snowball sampling results in dependent sampling units and may also include bias (Acharya *et al.,* 2013).

In terms of the theoretical foundation, the primary research and interpretation of findings were based primarily on the adapted AID model by St Lewis (Wijaya, 2012) — the AIDA model — and thus only covers part of the theoretical domain in terms of brand positioning. Thus, there is much more room for future research to test the use of comparative advertising in terms of other brand positioning theories.

Also, the positivistic paradigm followed for this study poses limitation in that it, firstly, cannot attain the same standards of empirical evidence in controlled conditions as it would in natural conditions and, secondly, fails to take into account the subjectivity of individual life and thus cannot confidently raise conclusions on human social experiences (UKEssays, 2018).

5.4. Anticipated contribution

This research related to a study by Shimp and Dyer (1978), but the study is outdated and focuses on whether a brand's positioning has an effect on whether a brand should use comparative advertising. This study was done using a similar methodology, but there is no study one can easily find that conducts this study the other way around: whether a brand's choice of using or not using comparative advertisement has an effect on its brand positioning. As discussed in the rationale for this study, the research in this paper provided empirical evidence which helps to fill this gap in literature: the effects of comparative advertisements on brands' positioning. This study comes to some similar conclusions to what Shimp and Dyer (1978) have come to: that non-comparative advertising was demonstrably more effective; however, on some variables it came to different conclusions. In accepting or rejecting the null hypotheses, this research adds to the credibility of existing knowledge related to brand positioning and comparative advertisements. In addition, this research topic may be applicable in the field of advertising and marketing consulting when firms are to be advised on whether or not to use comparative advertising. However, comparative advertising is very complex, and thus no major conclusions were made concerning the impact of comparative advertising on brand positioning due to the limited empirical evidence of this study.

5.5. Conclusion and recommendation

This research paper presented and interpreted the findings to investigate the difference between the brand positioning of Apple and Samsung, based on their use of comparative advertising. There was little difference between the findings of this study and that of Shimp and Dyer's (1978). Only H_01 and H_02 were accepted, as the results of both advertisements being very similar. However, H_03 to H_08 were rejected. This answers our research questions: (1) does a brand's use of comparative advertising in any way change the brand's positioning, and (2) does a brand's use of non-comparative advertising in any way change the brand's positioning? The answer to both questions, *ceteris paribus*, is yes. This would mean that Apple is better positioned as a brand in the minds of consumers because it utilised a non-comparative advertisement, and this advertising format would then be recommended above comparative advertising.

However, many other factors come into play which were not factored into this study, inhibiting the study's overall success in terms of the generalisation of findings. Thus, one cannot conclude that the use of a non-comparative advertisement better positions a brand in its market with confidence since it may be that a brand such as Apple is already such an established brand that its advertising method is irrelevant in determining its positioning. Most probably, the mode of advertising, specifically in terms of comparative versus non-comparative advertising, does not necessarily play much of a role in the positioning of a product in the minds of consumers; but rather the product itself in terms of its benefits and the emotional connection consumers create with the brand.

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Annexure A: Final Research Report Summary Document Template

TITLE: A research report investigating the difference between the brand positioning of two brands, based on their use of comparative advertising: A case study of Apple and Samsung

Research Purpose/ Objective	**Primary Research Question**	**Research Rationale**	**Seminal Authors/ Sources**	**Literature Review – Conceptual Framework**	**Paradigm**	**Approach**	**Data Collection Method(s)**	**Ethics**	**Key Findings**	**Recommen-dations**
To explore the phenomena of brand positioning by referring to the rivalry between Apple and Samsung and their use of comparative advertisements	How does the brand positioning of two brands, which is determined by the public, differ based on their use of comparative advertising?	Provides empirical evidence which helps fill a gap in literature: only one research report could be found on the effects of brand positioning on brands' use of comparative ads, but none on the effects of comparative ads on their positioning	St. Lewis (Wijaya, 2012), Weilbacher (2001, cited in Wijaya, 2012), Egan (2007), Barry and Tremblay, (1975), Chevins, (1975), Levine, (1976), Shimp and Dyer, (1978), Ogilvy and Mather (1975)	**Theme 1:** Conceptualisation **Theme 2:** The Hierarchy of Effects model **Theme 3:** The independent variable - the use of comparative advertising **Theme 4:** The dependent variable - brand positioning	**Paradigm** Positivism **Epistemology** Descr be what is being measured and stick to what is observed and measured only **Ontology** Reality in this study is seen as operated by the laws of cause and effect	Quantitative **Population** **Population Parameters** The observed and accessible population were respondents who reside within South Africa and own a device where they are able to watch advertisements.	Secondary research as well as primary research via an online survey questionnaire	Ethical considerations were simple to take into account. This study abided to IIE's standards of ethics in research. Permission was obtained from all respondents before collecting data; all respondents were above 18; respondents' anonymity and confidentiality were ensured; participants were given a right to withdraw; participants' autonomy were ensured; respect and consideration was displayed.	1. If an advertiser's objective is to promote recall of core points, less information should be presented in a comparative ad. 2. Comparative ads can be ambiguous and confusing and is less informative than a non-comparative ad format. 3. If comparative ads were to be increased, credibility may diminish. 4. Comparative ads perceived as less truthful than non-comparative. 5. More favourable attitudes towards non-comparative ad. 6. Higher purchase intention towards the non-comparative ad	Future research: 1. Use a hybrid-approach of both quantitative and qualitative research in future studies if time allows 2. Ask respondents if they utilise any Apple or Samsung products. 3. Use less well-known brands or a less brand-loyal industry. 4. Test the use of comparative advertising in terms of other brand positioning theories.
Research Problem	**Secondary Questions/ Hypotheses/ Objectives**	**Key Concepts**	**Key Theories**	**Theme 5:** The construct - brand positioning		**Sampling**	**Data Analysis Method(s)**	**Limitations**	**Key Contribution**	Marketing companies:
Whether companies should utilise comparative advertisements and whether the use thereof will result in them being better positioned in the market by consumers, especially since it's perceived so differently.	To determine whether the (1) identification, (2) recall, (3) informa iveness, (4) interestingness, (5) believability, (6) source credibility, (7) favourable attitudes and (8) purchase intent towards two brands differ based on their use of comparative advertising.	Comparative advertising, non-comparative advertising, and brand positioning.	The Hierarchy of Effects model (AIDA model) by St. Lewis (Wijaya, 2012).	**Theme 6:** The case study of Apple vs Samsung	Methodology: Conclusions are derived via a 'scientific' method to yield results with internal validity	**Probability or non-probability sampling** Non-probability **Sampling method** Convenience and snowball **Size** n=52	**Unit of Analysis** South African male, female or non-binary citizen who owns a device where he/she is able to watch an advertisement. **Data Analysis Method(s)** Descriptive analysis and inferential statistics	Quantitative research limitations, time and cost constraints, limits due to no qualitative questions in questionnaire, limit on research questions in questionnaire, brand-loyalty of respondents, non-probability sampling, utilisation of only a part of the theoretical domain of brand posi ioning, posi ivistic limitations.	Provided empirical evidence which helps to fill a gap in literature; adds to the credibility of existing knowledge related to brand positioning and comparative advertisements; applicable in advising firms on whether or not to use comparative advertising.	Apple is better positioned as a brand in the minds of consumers because it utilised a non-comparative advertisement, and this advertising format would then be recommended above comparative advertising

Annexure B: Vega Ethics checklist: RESE8419/p/w

Student Details												
Title	Prof	☐	Dr	☐	Ms	X	Mrs	☐	Mr	☐	Mx	☐
First name(s)	Chanelle											
Last name(s)	Botha											
Title of study	Bcom (Hons) Strategic Brand Management											
Qualification	Honours Degree											

Supervisor Details												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	X	Mx	☐
First and last names	Ivan Mkhomazi											

Co-supervisor Details (if applicable)												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☐	Mx	☐
First and last names	Click or tap here to enter text.											

Explaining your research process						
Philosophical paradigm	Positivism	X	Interpretivism	☐	Constructivism	☐
	Realism	☐	Objectivism	☐	Pragmatism	☐
	Functionalist	☐	Subjectivism	☐	Humanist	☐
	Other:					
Research design:	Interview	☐	Questionnaire (self adminis-tered)	X	Focus group	☐
	Ethnography/ Observation	☐	Artefact analysis/website/ social media analysis	☐	Action Research	☐
	Case Study	☐	Design Research (Practice based)	☐		☐
	Other *(if so, state)*	☐	Click or tap here to enter text.			
Brief explanation of the population and number of participants/items	30 male or female respondents over the age of 18					
Target group sampling methods/artefact (No under 18's or vulnera-ble groups allowed)	Purposive		Random		Snowball	X
	Convenient	X	Stratified		Census	
	Explain selection process		Click or tap here to enter text.			

Ethics		
Documentation submitted with proposal	Gatekeeper's letter (institutional consent)	☐
	Completed Annexure E if you conduct research on IIE sites/students/staff	☐
	Instrument(s) (interview schedule or questionnaire)	X
	Participant or respondent consent form	X
	Audio-visual consent form (if applicable)	☐

Campus ethics committee recommendation	
Proposal has been reviewed by the supervisor and necessary ethics considerations have been included. Accepted as is and provide letter Accepted with provisions: Nature of provision: e.g. Instrument is not sufficient / included and need to be signed off by the supervisor Major issues: Student should not continue with fieldwork. Actions to be taken: Click or tap here to enter text.	
Supervisor signature	
	Click or tap to enter a date.
Co-supervisor/Campus ethics panel member signature	
	Click or tap to enter a date.

Annexure C: Consent form

THE INDEPENDENT INSTITUTE OF EDUCATION

CONSENT FORM

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Chanelle Botha and I am a student at Vega School Pretoria. I am currently conducting research under the supervision of Ivan Mkhomazi about whether the brand positioning of two brands differs based on the brands' use of comparative advertising. I hope that this research will enhance our understanding of the effects of comparative ads on brands' positioning. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study?
I would like to invite you to participate in this research because you will definitely contribute to the body of knowledge and the accuracy of result. If you decide to participate in this research, I would like to analyse the data collected from the survey questionnaires to draw conclusions on whether the use of comparative advertisements in any way affect a brand's positioning and, if so, how. You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.
Are there any risks/ or discomforts involved in participating in this study?
Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.
Do I have to participate in the study?
• Your inclusion in this study is completely voluntary; • If you do not wish to participate in this study, you have every right not to do so; • Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.
Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at Vega School Pretoria, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.
What will happen to the information that participants provide?
Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my BCom Honours in Strategic Brand Management. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.
What happens if I have more questions about the study?
Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate. You should not agree to participate unless you are completely comfortable with the procedures followed. My contact details are as follows: Chanelle Botha [redacted] The contact details of my supervisor are as follows: Ivan Mkhomazi [redacted]

Participant or respondent consent

I, ____, agree to participate in the research conducted by Chanelle Botha about the result of the use of comparative ads on a brand's positioning.

This research has been explained to me and I understand what participation in this research will involve. I understand that:

- I agree to be interviewed for this research.
- My confidentiality will be ensured. My name and personal details will be kept private.
- My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.
- I may choose not to answer any of the questions that are asked during the research interview.
- I may be quoted directly when the research is published, but my identity will be protected.

Signature	**Date**

Annexure D: Picture Sent along with the Link

Annexure E: Questionnaire

Q1: CONSENT TO PARTICIPATE IN RESEARCH

(Insert consent form from Appendix B)

Do you agree that you have read and understood the information provided for the current study and that you agree to participate in this research study?

a. Yes

b. No

D1: Are you over the age of 18?

a. Yes

b. No

D2: Please select your gender

a. Male

b. Female

c. Non-binary

d. Prefer not to say

D3: Do you permanently live in South Africa?

a. Yes

b. No

S1: Do you own a device where you are able to watch advertisements (such as a smartphone, television or computer)?

a. Yes

b. No

S2: Direct comparative advertising is defined as the explicit presentation of competitors' names, logos, symbols or the like as a point of comparison in advertised messages (Barry and Tremblay, 1975). Indirect comparative advertising, on the other hand, refers to unnamed competitors instead of directly identifying competitive brands in advertisements (Miniard *et al*., 2006).

Have you recently seen any comparative advertisements, whether direct or indirect?

a. Yes

b. No

c. Unsure

S3: If yes, in your opinion, how regularly do you see these comparative advertisements?

a. Always

b. Usually

c. Sometimes

d. Rarely

e. Never

S4: How acceptable do you PERSONALLY believe these advertisements are?

a. Extremely acceptable

b. Somewhat acceptable

c. Neither acceptable or unacceptable

d. Somewhat unacceptable

e. Extremely unacceptable

S6: How acceptable do you believe these advertisements are to the GENERAL PUBLIC?

a. Extremely acceptable

b. Somewhat acceptable

c. Neither acceptable or unacceptable

d. Somewhat unacceptable

e. Extremely unacceptable

AL1: Please watch the FIRST ad on this YouTube video (first 30 seconds) on an example of what a comparative advertisement looks like. It is a compilation of various ads - thus, PLEASE ONLY WATCH THE FIRST 30SECOND AD. Once you have finished the video, you can return to the survey to continue answering the questions

Click here to follow the link

You have just watched a short comparative advertisement. Please identify the company who created this advertisement.

a. Apple

b. Samsung

c. Huawei

d. Blackberry

AL2:Can you remember what the MAIN idea of the advertisement was?

a. That this product cannot be charged without a "dongle"

b. That the employee is lazy to help

c. That a "dongle" is needed to plug a charger or earphones or both into this product, which is a waste

d. That the employee is uneducated

PL1-5: Please indicate in the table below to which level you agree with the statements below (The answers range from strongly agree to strongly disagree)
(Please answer all statements)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The ad was interesting					
The ad was informative					
The statements made in the ad was believable					
The sponsor of the ad was truthful					
The arguments made in the ad was convincing					

AAL1-2: Once again, please indicate in the table below to which level you agree with the statements below (The answers range from strongly agree to strongly disagree)
(Please answer all statements)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly agree
I like this brand as a product in general.					
I would go to this brand's store to purchase its products if one were in my general locality.					

AL1: Please watch this YouTube video on an example of what a traditional advertisement looks like. Once you have finished the video, you can return to the survey to continue answering the questions.

Click here to follow the link

You have just watched a short traditional advertisement. Please identify the company who created this advertisement.

a. Apple

b. Samsung

c. Huawei

d. Blackberry

AL2: Can you remember what the MAIN idea of the advertisement was?

a. That this iPhone can turn your face into an emoji

b. All features of the new Apple iPhone X

c. That it has the best smartphone camera

d. That Apple outperforms its rivals

PL1-5: Please indicate in the table below to which level you agree with the statements below (The answers range from strongly agree to strongly disagree)
(Please answer all statements)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The ad was interesting					
The ad was informative					
The statements made in the ad was believable					
The sponsor of the ad was truthful					
The arguments made in the ad was convincing					

AAL1-2: Once again, please indicate in the table below to which level you agree with the statements below (The answers range from strongly agree to strongly disagree

(Please answer all statements)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly agree
I like this brand as a product in general.					
I would go to this brand's store to purchase its products if one were in my general locality.					

Annexure F: Evaluation of the Level of Measurement used in each Question

Variable	Item code	Questions from Questionnaire 1	Questions from Questionnaire 2	Measurement scale
Consent	Q1	Do you agree that you have read and understood the information provided for the current study and that you agree to participate in this research study?	Do you agree that you have read and understood the information provided for the current study and that you agree to participate in this research study?	N/A
Demographic	D1	In what year were you born?	In what year were you born?	Nominal
	D2	Select your gender.	Select your gender.	Nominal
	D3	Do you permanently live in South Africa?	Do you permanently live in South Africa?	Nominal
Screening	S1	Do you own a device where you are able to watch advertisements (such as a smartphone, television or computer)?	Do you own a device where you are able to watch advertisements (such as a smartphone, television or computer)?	Nominal
	S2	Direct comparative advertising is defined as the explicit presentation of competitors' names, logos, symbols or the l ke as a point of comparison in advertised messages (Barry and Tremblay, 1975). Indirect comparative advertising, on the other hand, refers to unnamed competitors instead of directly identifying competitive brands in advertisements (Miniard et al., 2006). Have you recently seen any comparative advertisements?	Traditional advertising refers to paid commercial messages delivered to mass audiences with the goal to drive sales of products and services by persuading consumers over the long term (Boykin, 2019). Sources include television, radio, outdoor billboards and print media. Have you recently seen any traditional advertisements?	Nominal
	S3	If yes, in your opinion, how regularly do you see these comparative advertisements?	If yes, in your opinion, how regularly do you see these traditional advertisements?	L kert, interval
	S4	How acceptable do you personally believe these advertisements are?	How acceptable do you personally believe these advertisements are?	L kert, interval
	S5	In one to two words, explain your answer in the previous question.	In one to two words, explain your answer in the previous question.	Nominal
	S6	How acceptable do you believe these advertisements are to the general public?	How acceptable do you believe these advertisements are to the general public?	L kert, interval
	S7	S5: In one to two words, explain your answer in the previous question.	S5: In one to two words, explain your answer in the previous question.	Nominal
Attention level	AL1	You have just watched a short clip related to comparative advertisements. Please identify which brand the sponsoring brand is for this comparative advertisement.	You have just watched a short clip related to traditional advertisements. Please identify which brand the sponsoring brand is for this comparative advertisement.	Nominal
	AL2	Can you recall what the core point of the advertisement was?	Can you recall what the core point of the advertisement was?	Nominal

Annexure F: Evaluation of the Level of Measurement used in each Question

Variable	Item code	Questions from Questionnaire 1	Questions from Questionnaire 2	Measurement scale
Perceptual level	PL1	Please indicate in the table below to which degree you agree with these statements:	Please indicate in the table below to which degree you agree with these statements:	
	PL1.1.	The ad was interesting	The ad was interesting	L kert, interval
	PL1.2.	The ad was informative	The ad was informative	L kert, interval
	PL1.3.	The statements made in the ad was believable	The statements made in the ad was believable	L kert, interval
	PL1.4.	The sponsor of the ad was truthful	The sponsor of the ad was truthful	L kert, interval
	PL1.5.	The arguments made in the ad was convincing	The arguments made in the ad was convincing	L kert, interval
Attitudinal level	AAL1	Once again, please indicate in the table below to which degree you agree with these statements after watching the advertisement:	Once again, please indicate in the table below to which degree you agree with these statements after watching the advertisement:	
	AAL1.1.	I like this brand as a product in general.	I like this brand as a product in general.	L kert, interval
	AAL1.2.	I would go to this brand's store to purchase its products if one were in my general locality.	I would go to this brand's store to purchase its products if one were in my general locality.	L kert, interval

Annexure G: Coding of the Questions

Variable	Item code	Coding
Consent	Q1	N/A
Demographic	D1	Dependent on the answers collected
	D2	Male = 1
		Female = 2
		Non-binary = 3
		Prefer not to say = 4
	D3	Yes = 1
		No = 2
Screening	S1	Yes = 1
		No = 2
	S2	Yes = 1
		No = 2
		Unsure = 3
	S3	Never = 1
		Rarely = 2
		Sometimes = 3
		Usually = 4
		Always = 5
	S4	Extremely unacceptable = 1
		Somewhat unacceptable = 2
		Neither acceptable nor unacceptable = 3
		Somewhat acceptable = 4
		Extremely acceptable = 5
	S6	Extremely unacceptable = 1
		Somewhat unacceptable = 2
		Neither acceptable nor unacceptable = 3
		Somewhat acceptable = 4
		Extremely acceptable = 5
Attention level	AL1	Apple = 1
		Samsung = 2
		Huawei = 3
		Blackberry = 4
	AL2	That this product cannot be charged without a "dongle"/That this iPhone can turn your face into an emoji = 1
		That the employee is lazy to help/All features of the new Apple iPhone X = 2
		That a "dongle" is needed to plug a charger or earphones or both into this product, which is a waste/That it has the best smartphone camera = 3
		That the employee is uneducated/That Apple outperforms its rivals = 4
Perceptual level	PL1	Strongly disagree = 1
		Disagree = 2
		Neither agree nor disagree = 3
		Agree = 4
		Strongly agree = 5
Attitudinal level	AAL1	Strongly disagree = 1
		Disagree = 2
		Neither agree nor disagree = 3
		Agree = 4
		Strongly agree = 5

Annexure H: Coded Data Spreadsheet

Please select your gender	Do you permanently live in South Africa?	Do you own a device where you are able to watch advertisements (such as a smartphone, television or computer)?	Have you recently seen any comparative advertisements , whether direct or indirect?	If yes, in your opinion, how regularly do you see these comparative advertisements ?	How acceptable do you PERSONALLY believe these advertisements are?	How acceptable do you believe these advertisements are to the GENERAL PUBLIC?	You have just watched a short comparative advertisement. Please identify the company who created this advertisement.	Can you remember what the MAIN idea of the advertisement was?	[The ad was interesting]	[The ad was informative]	[The statements made in the ad was believable]	[The brand was truthful]	[The arguments made in the ad was convincing]	[I like this brand as a product in general.]	[I would go to this brand's store to purchase its products if one were near me.]	You have just watched a short traditional advertisement. Please identify the company who created this advertisement.	Can you remember what the MAIN idea of the advertisement was?	[The ad was interesting]	[The ad was informative]	[The statements made in the ad was believable]	[The brand was truthful]	[The arguments made in the ad was convincing]	[I like this brand as a product in general.]	[I would go to this brand's store to purchase its products if one were near me.]
1	1	1	1	2	4	4	2	3	3	2	4	3	4	1	1	1	2	5	5	5	5	5	5	5
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2	1	1	1	3	5	4	2	3	5	5	5	5	5	4	3	1	2	4	3	3	4	3	3	3

Annexure I: The application of inferential statistics

To infer the data from the sample to the bigger population, inferential statistics were used. The researcher followed these steps:

Step 1: Formulate the H_0 for each objective.

Eight H_0's were formulated. A null hypothesis is a type of hypothesis that proposes that there is no difference between a variable and a characteristic of a population (Hayes, 2021).

Step 2: Select the statistical technique.

Since one sample group completed the questionnaire on two different brands, a paired-sample t-test has been used (Bevans, 2020), which determined whether the mean difference between two sets of observations is zero. Basically, each subject was measured twice, which resulted in pairs of observations.

Step 3: Choose a confidence level.

The confidence level is an indication of the researcher's confidence of how the results are a true reflection of the population's opinions (Zikmund and Babin, 2016). Since the accessible sample of respondents did not perfectly match the target sample (it was heavily skewed towards females), a confidence interval of 90% was used to account for the sampling error. Thus, the significance level (or α/alpha) — the probability of rejecting the null hypothesis when it is true (Minitab Blog Editor, 2015) — is 0.1, which indicates a 10% risk of concluding that a difference exists when there is no actual difference

Step 4: Do the test.

The researcher conducted the t-test for each hypothesis using this formula (Bevans, 2020):

$$t = \frac{\overline{x}_1 - \overline{x}_2}{\sqrt{(s^2(\frac{1}{n_1} + \frac{1}{n_2}))}}$$

Step 5: Determine whether the hypotheses are directional or non-directional.

These hypotheses are non-directional, which means that they do not state the direction of the difference, it indicates only that a difference exists (Salkind, 2010). Thus, a two-tailed critical value was used to determine whether the hypotheses should be rejected or not.

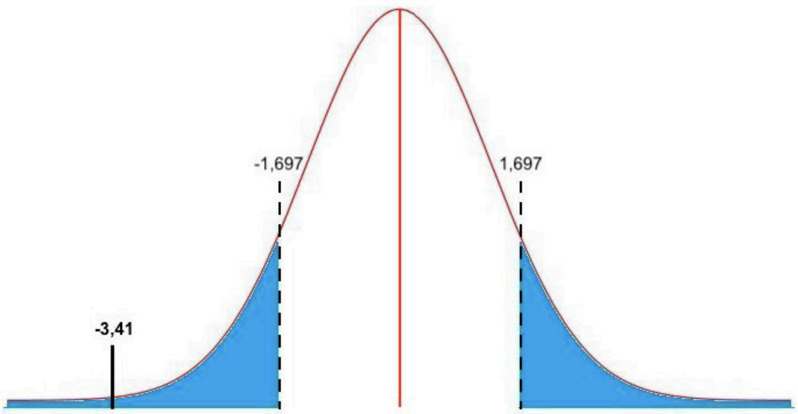
Step 6: Compare the calculated t-statistic to the two-tailed t-value.

The researcher then drew up normal distributions for each hypothesis with the two-tailed t-values on both ends to determine whether the calculated t-statistic falls within or outside these critical values. The blue areas on the graphs are *rejection regions,* thus, if the calculated t-statistic falls in that region, the hypothesis should be rejected. These distributions can be seen in the figures below along with a table containing the means, standards deviations, variances, number of responses, degrees of freedom, the calculated t-statistic and the critical values.

$H_0$3	The interestingness of two brands does not differ based on the brands' use of comparative advertising.

Figure 30: Interestingness t-test application

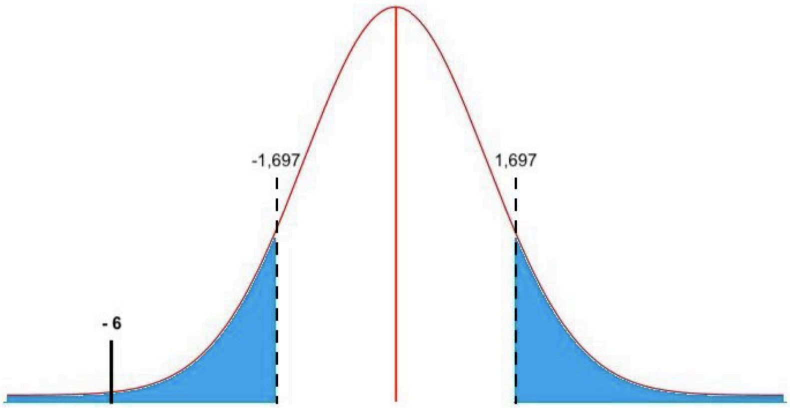
t-test: one sample — interestingness		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,83	4,39
Standard deviation	0,90	0,69
Variance	0,81	0,48
N	52	52
df	51	51
T-stat	-3,41	
T Crit two tail	+-1,697	



$H_0$4	The informativeness of two brands does not differ based on the brands' use of comparative advertising.

Figure 31: Informativeness t-test application

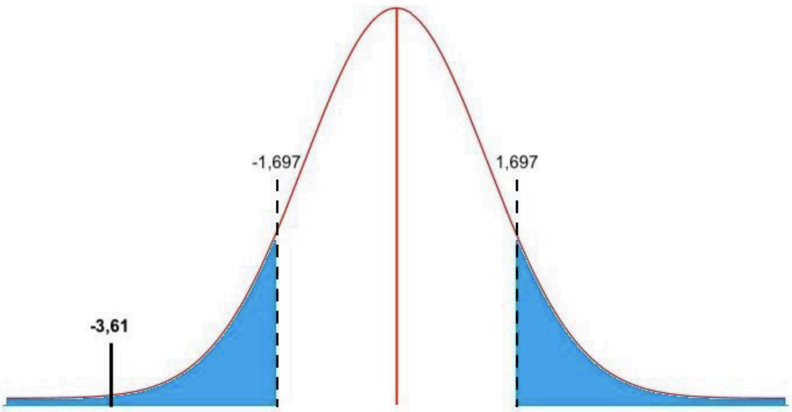
t-test: one sample — informativeness		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,40	4,5
Standard deviation	1,05	0,54
Variance	1,11	0,29
N	52	52
df	51	51
T-stat	-6	
T Crit two tail	-1,697	



$H_0$5	The believability of two brands does not differ based on the brands' use of comparative advertising.

Figure 32: Believability t-test application

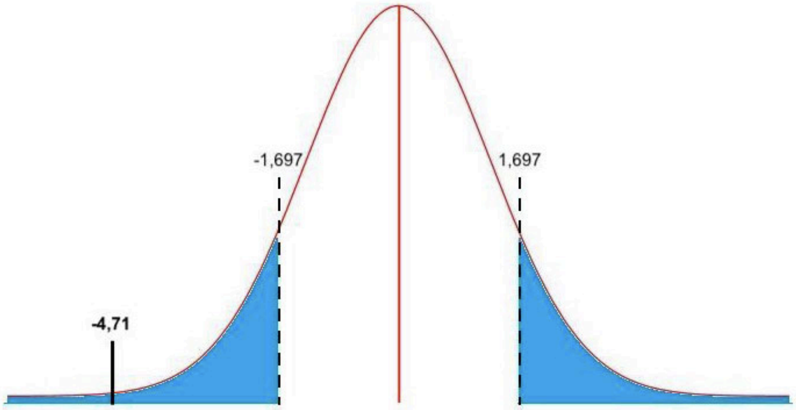
t-test: one sample — believability		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,90	4,39
Standard deviation	0,75	0,60
Variance	0,56	0,36
N	52	52
df	51	51
T-stat	-3,61	
T Crit two tail	-1,697	



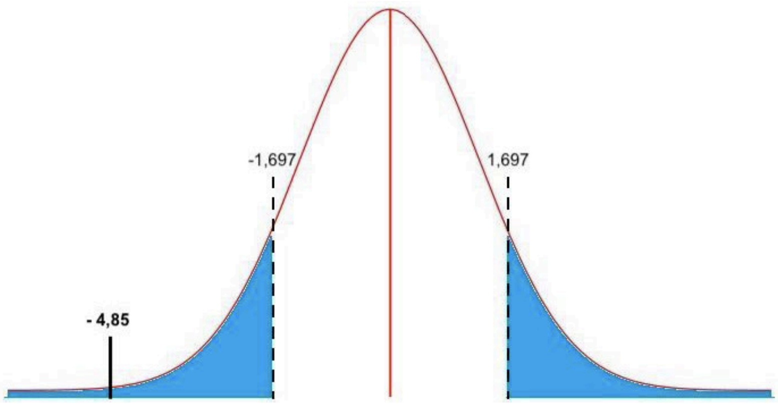
$H_0$6	The truthfulness and convincingness of two brands does not differ based on the brands' use of comparative advertising.

Figure 32: Truthfulness and convincingness t-test application

t-test: one sample — truthfulness		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,77	4,40
Standard deviation	0,81	0,60
Variance	0,65	0,36
N	52	52
df	51	51
T-stat	-4,71	
T Crit two tail	-1,697	



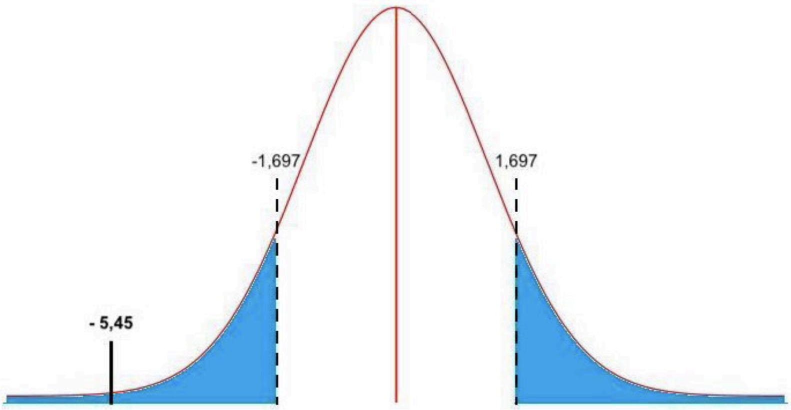
t-test: one sample — convincingness		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,5	4,35
Standard deviation	1,08	0,65
Variance	1,16	0,43
N	52	52
df	51	51
T-stat	-4,85	
T Crit two tail	-1,697	



H$_0$7	Favourable attitudes towards two brands does not differ based on the brands' use of comparative advertising.

Figure 33: Favourable attitude t-test application

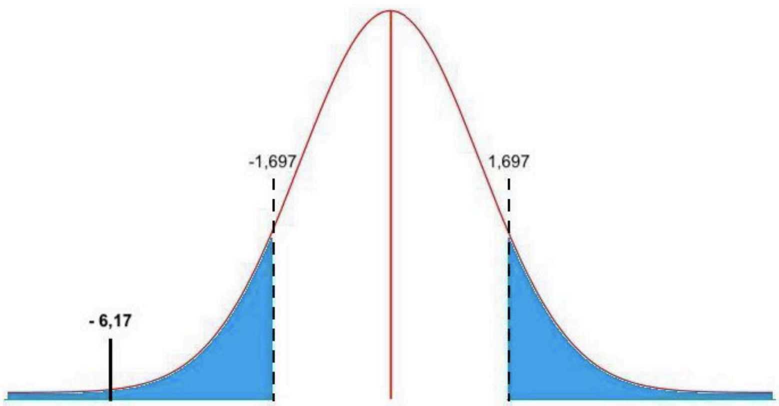
t-test: one sample — favourable attitude		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	3,29	4,44
Standard deviation	1,14	0,70
Variance	1,31	0,49
N	52	52
df	51	51
T-stat	-5,45	
T Crit two tail	-1,697	



H$_0$8	Purchase intent towards two brands does not differ based on the brands' use of comparative advertising.

Figure 34: Purchase intent t-test application

t-test: one sample		
	Variable 1 (Samsung)	*Variable 2 (Apple)*
Mean	2,83	4,27
Standard deviation	1,2	0,87
Variance	1,44	0,75
N	52	52
df	51	51
T-stat	-6,17	
T Crit two tail	-1,697	



Step 7: Accept or reject the H$_0$ for each objective.

This step can be found in section 5.

Step 8: Explain the findings in marketing terms.