Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students

JH Van Schalkwyk
orcid.org/ 0000-0001-8887-9715

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Promoter: Dr R Müller

Co-Promoter: Prof AL Bevan-Dye

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Student number: 20199422

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DECLARATION

I, **Johannes-Hugo van Schalkwyk,** declare that **Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students** is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

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Ms Angeliki Albanis

English Language Editing

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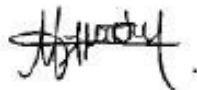Tel: 076 618 4561

E-mail: angeliki.albanis@gmail.com

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To whom it may concern

This is to confirm that I, the undersigned, have language edited the completed research of Hugo van Schalkwyk for the Philosophiae Doctor thesis entitled: *Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students.*

The responsibility of implementing the recommended language changes rests with the author of the thesis.

Yours truly,

Angeliki Albanis

ABSTRACT

Keywords: Relationship marketing, social media, smartphones, Generation Y students.

The competitiveness of the smartphone market has escalated in recent years and has seen varying brands vie for the top. This has been aided by the diffusion of technology, as well as the streamlining of the supply chain for smartphones. As such, quality or unique features were no longer the most important aspects as the number of substitutes has afforded users to test new brands and at lower prices than had ever been possible before. Thus, it is suggested that brands need a differentiating factor that will set them apart from other brands. This study hypothesised that relationship marketing through social media could prove to be enough of a differentiating feature for brands to be able to showcase a uniqueness, or at the very least, differentiation to the extent of standing out from other brands. When a relationship is sought with consumers, above merely selling a semi-homogenous product, their loyalty and preference to the brand might be a clinching factor in selling. Thus, when brands build relationships, the relationship itself is seen as a differentiating factor, which augments the product, and therefore shows itself as a more attractive option than merely buying a smartphone.

This study set out to test factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students. Therefore, the focus was on Generation Y students aged 18 to 24, from the Gauteng Province. This data came from using 519 initial respondents, which was trimmed down to 512 after the removal of outliers. The data was collected in 2017, using a self-administered questionnaire, which was given to respondents through non-probability convenience sampling.

The factors that were used to test the hypotheses for this study were brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention. The conceptual model for the study showed sufficient model fit in all but two instances, and a new model was proposed to find a balance between theory and the data found in this study. It was found that brand experience and anticipated benefits had a positive effect on brand loyalty. Anticipated benefits, perceived usefulness, and brand community had a positive effect on intention to be involved, and anticipated benefits had a positive effect on brand activities. Next, brand loyalty, intention to be involved, and brand activities had a positive effect on brand trust. Brand loyalty and brand trust had a positive effect on commitment. Brand loyalty, brand activities, and commitment had a positive effect on advocacy intention.

This study shows that Generation Y students tend to be brand loyal and value brand experience highly. Moreover, they perceive social media as useful to connect with smartphone brands but anticipate certain benefits and brand activities when following brands on social media. Next, Generation Y students are in favour of brand communities and want to feel valued in those communities. They had the intention to be involved with the social media pages of smartphone brands. Next, they show that they want to trust smartphone brands, are in favour of being committed, and ultimately, can be persuaded to become advocates for the brand. This is the ultimate goal for brands who make use of social media for their relationship marketing.

This study contributes to the scarce literature regarding Generation Y students in South Africa, regarding the social media pages of smartphone brands, which is seen as a practical contribution. Furthermore, smartphones are becoming ever more popular but compete in a crowded market. This study highlights the attitude of the Generation cohort regarding smartphones and several specific brands. Moreover, this study showcases a model that shows flexibility and can be used by smartphone manufacturers to attain brand advocacy among their customers. This is achieved by showing several different models, paths, and constructs that are relevant to social media and smartphones, and how they correlate in the different constructs. Next, this study showed brand loyalty as an independent variable, to study whether the individual using a brand and being loyal to a brand, motivates them to make use of the social media pages of smartphone brands. Lastly, the model used could possibly be altered for use in other electronics categories, to assess the way in which the user can be motivated to become a brand advocate.

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CHAPTER 1 INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION

Relationship marketing is a form of marketing within a relationship paradigm that uses attraction, maintenance, interaction, and enhancement to build rapport between organisations and individuals (Rouse, 2018; Mastroianni, 2014:3; Gummesson, 2002:3). Thus, relationship marketing is concerned with forming long-term relationships, which are used to encourage customer loyalty as opposed to one-time sales (Marketing Schools, 2012).

Relationships in marketing have become increasingly important, not only because it is cheaper to retain customers than to get new ones, but also because loyal customers add value to the organisation. As such, it is crucial that the business offers value and meaning to achieve these relationships, which are best managed through the web (Moretti & Tuan, 2013:250-252). It has been suggested that these relationships could have mixed or even have negative results. However, through communication and expertise these relationships can be successful (Solomon & Peter, 2018:4; Taylor, 2017; Palmatier *et al.*, 2005:21). Relationship marketing is a multidimensional effort that includes, among others, employees, suppliers, customers, and competitors (Biswas, 2014:9; Morgan *et al.*, 1994:21). Therefore, relationship marketing stands in contrast to transactional marketing, which is primarily focussed on single, point of sale transactions (Rouse, 2014). It is thus focussed on trust and commitment, which serves to benefit both parties in the long run (Solomon & Peter, 2018:4; Wang, 2005:81). In fact, in relationship marketing, which has sometimes been referred to as loyalty marketing, it is suggested that customer loyalty is the marketplace currency of this century (Egan, 2011:56). However, it is difficult for organisations to remain ahead in the relationship marketing space, as most organisations are moving towards social media marketing, a space that is becoming ever more crowded. Thus, organisations who have not should move their relationship marketing focus towards the online space, in order to remain competitive (Peck, 2015). Social media has rightly been called a phenomenon and has grown considerably over the last decade (Kaplan & Haenlein, 2010:59). Business dictionary (2016) defines social media as "primarily internet or cellular phone-based applications and tools to share information among people".

There has been a transition towards the online sphere, to the extent that some even go as far as stating that when organisations are not on social networks, they are not part of cyberspace (Jackson, 2018; Kaplan & Haenlein, 2010:67). When entering the social media landscape, however, organisations must position themselves in such a way that consumers will want to take part in their social media endeavours. As such, organisations must create memorable, lasting

impressions in the minds of consumers (Boateng & Okoe, 2015:308). Social media has transformed the way the web is interacted with. From its inception (circa 1997) until the social network boom (2003), individuals tended to mostly consume information from the web (History Cooperative, 2017). This has changed and has seen more and more content created in the form of blogs, sharing sites, wikis, videos, and posts (Kietzman *et al.*, 2011:241). In fact, social media has grown to such an extent that it would have been almost unfathomable during the dawn of the web age. On Facebook, on average in 2016, 421 million statuses were updated per day and 4.5 billion likes generated (Zephoria, 2017). An average of 52 million photos was posted on Instagram per day (Statistics Brain, 2016a). YouTube saw an average of 432, 000 hours of video uploaded per day (Donchev, 2017). Twitter had nearly 500 million tweets per day on average, in 2016 (Internet Live Stats, 2016). The numbers are staggering, though these four social media sites are only a handful of what is available. Ebiz (2017) listed and rated the largest social network sites in May 2017. These were, in order of largest to smaller ones Facebook, YouTube, Twitter, LinkedIn, Reddit, VK, Tumblr, Pinterest, Google Plus, Flickr. Apart from these, there are others still.

Considering all the options available, and the fact that the social media phenomenon has grown so ostensibly, organisations have no choice but to shift their focus towards it. In fact, social media has become a critical factor in many businesses where involvement now ranges from low involvement to high involvement (Halpin, 2013:26; Picard, 2009:11). Social media has become so powerful and so integrated into business and consumer minds, that one tweet or video or blog post from a company can snowball and destroy a company's reputation (Masterson, 2016; Kietzmann *et al.,* 2011:242). Contrarily to harming a reputation, social media marketing that is conducted correctly can lead to high numbers of Twitter followers, record ratings for television shows, extraordinary profit margins for movies, and high customer growth (Carter, 2013).

Social media is a form of electronic communication in which users create online communities, share information, content, personal messages, and ideas (Merriam-Webster, 2019). Social media marketing is seen as an evolution of relationship marketing, which, in its time, succeeded transactional marketing (Moretti & Tuan, 2013:250). Technori (2013) concurs by stating that social media is a friend to relationship marketing, and can help by creating awareness, spreading the word faster, cultivating relationships, and help in crisis control. Hutter *et al.* (2013:343) state that brands have become social in nature, and that relationships help to create brand value. Thus, social media encourages active involvement from consumers. This involvement has taken on a life of its own where we now see communication regarding a brand being democratised. Individuals discuss, create, share, and consume, all without organisations' input or permission (Peters, 2019; Kietzmann *et al.*, 2011:242). Some brands end up with such loyal followers that they border on the fanatical and tend to vehemently defend and follow certain brands (Iliff, 2018;

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Reid, 2011). These adamant followers tend to buy more, are willing to keep buying despite price increases and become very vocal in their support of the brand that they love (Bhasin, 2011). Moretti and Tuan (2013:260) argue that social media can be an important gateway through which organisations and stakeholders can communicate. In fact, through social media relationships, consumers can become more than an audience; they can become active co-creators of value.

Relationship marketing has become crucial to many businesses, especially that of smartphone brands as competition has increased dramatically. As such, it is proposed by Yeh *et al.* (2015:245, 248) that certain factors are important in the loyalty towards smartphone brands. These dimensions are functional value, emotional value, social value, and brand identification. Jesensky (2013) suggests that smartphones are extremely important in both personal and professional aspects of the individual's daily life. It serves to enhance life and can serve as a mini computer that keeps us connected, helps run our lives more efficiently, gives us enhanced functionality, and entertains us.

Research shows that in 2018 approximately 36% of the South African population had a smartphone (Statista, 2018i), which compared poorly to countries such as the United States (69%) (Statista, 2018h), Australia (70%) (Statista, 2018g), and Germany (59%) (Statista, 2018f). Added to this, 61% of social media usage is conducted from smartphones, mostly by 18 to 34-year olds (Sterling, 2016). This shows that the smartphone market is not yet saturated; however, it is saturated with competition (Olenski, 2018). Thus, it is becoming increasingly difficult for brands to differentiate themselves from others (Zakowicz, 2018; Wohlsen, 2014). This leads to numerous difficulties for both larger and smaller smartphone brands.

In this study, social media, social media site, and social networking site will refer to any site in which a brand can construct a brand page for themselves and where they can communicate with users and vice versa. Social media pages will refer to pages that a brand creates on social media, which individuals can participate in by choosing to 'follow' or 'like' the page. The benefit of posting content on such a forum is that it allows communication from the brand to the individual, from the individual to the brand, and from the individual to other individuals (Slatiel, 2015).

1.2   PROBLEM STATEMENT

This study examines the relationships facilitated by social media between businesses and potential consumers, specifically focussing on smartphone brands. Social media is an important tool for any business and has a much higher success rate than outbound marketing (DePhillips, 2010). Flekel (2012) concurs and adds some reasons why social media is important, namely, social media drives traffic where the business wants it to go. It is a crucial part of SEO (search

engine optimisation), as more social links are added to search results. Next, positive engagement with pundits leads to a better brand image and it gives brands a personality. Finally, it is very mobile-oriented and makes marketing on mobile easier. Therefore, it is crucial for organisations to have an online presence in this digital age (Hague, 2017; Barton, 2017; Williams, 2016a; Chrysalis, 2013). Those who do not use it are not free from criticism as social media allows a brand to defend itself and offer explanations. Furthermore, the problem is exacerbated by the fact that internet users spend 4 times as much time on social media than on Google search (Yan, 2013). However, social media is not a simple case of using and gaining success. In fact, social media has been likened to a minefield, and rightfully so, as organisations must tread carefully when using it (Taylor, 2014).

It has become more important than ever to understand consumers, especially due to the fact that users can become ex-users, as users can switch brands, despite having liked or disliked them in the past (Appiah *et al.,* 2017:6). Here, social media shows its strength, as is deemed important in aiding in achieving sales, as well as maintaining and retaining customers (Abeysekera, 2017:18). As such, blending social media with relationship marketing shows itself, at least to an extent, as being a differentiating factor in an era of increasing global competition (Mosley, 2018; Beck *et al.,* 2015:1). There is a clear indication that some smartphone brands illicit a stronger loyalty towards their brand than others. Some of the most loyal customers, where consumers remained with the same brand after upgrading, are Apple (76%), Samsung (58%), Nokia (33%), HTC (30%), LG (27%), Sony (24%), Motorola (22%), and BlackBerry (21%) (Danova, 2014). With the proliferation of new smartphone brands (Oxborrow, 2018), it is important to understand relationship marketing as a driver towards becoming vocal and loyal supporters who spread word of mouth and incur more purchases (Worth, 2019; Omar & Ali, 2010).

This study aimed to examine the factors which lead to relationship building through social media by organisations. The literature and models will help illuminate the factors that influence social media relationships, where smartphone brands are concerned. As such, it is proposed that brand loyalty (Sahin *et al.*, 2011), brand experience (Sahin *et al.*, 2011), perceived usefulness of social media (from hereon referred to as "perceived usefulness") (Rauniar *et al.*, 2014), anticipated benefits (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011), brand activities (Ashley *et al.*, 2011), and brand community (Laroche *et al.*, 2013) serve as baseline, independent factors. Following this, intention to be involved (Rauniar *et al.*, 2014; Ashley *et al.*, 2011) is seen as a mediator between the aforementioned independent variables and brand trust (Sahin *et al.*, 2011). Brand trust is mediated by commitment (Badrinarayanan & Laverie, 2013), which is mediated by advocacy intention (Wallace *et al.*, 2014; Lee *et al.*, 2010), which is seen as the final dependent

variable. These constructs are hypothesised to add to a model that would show the factors that influence successful relationships on social media, by smartphone brands.

This study focussed on the Generation Y cohort who is seen as those born between 1986 and 2005 (Markert, 2004:11-25). It has been posited that their attention is difficult to capture and that they are more difficult to convince, entertain, and impress (Crang, 2012). Ultimately, Generation Y is a generation that is different from previous generations, but their importance must not be underestimated as they have a high and ever-increasing purchasing power and purchasing desire (Kinley *et al.*, 2010:563). According to Bevan-Dye *et al.* (2009:174), those with a tertiary qualification, generally, have a higher future earning potential and tend to attain greater role model status. As for targeting students, who are educated individuals and are therefore a more accessible market (Stenberg, 2001). This study focused on students aged between 18 and 24 years.

This study aimed to test a model of the factors that influence successful relationship marketing by smartphone brands through social media amongst Generation Y students. The aim was to ascertain where social media relationships fit into this loyalty paradigm. The next section briefly investigates the objectives of the study.

1.3 OBJECTIVES OF THE STUDY

1.3.1 Primary objective

The primary objective of this study is to test a model of factors that influence successful relationship marketing by smartphone brands through social media amongst Generation Y students.

1.3.2 Theoretical objectives

In order to achieve the primary objective, the following theoretical objectives are formulated for the study:

- Investigate literature on relationship marketing and the influence thereof on the Generation Y cohort.

- Review literature on social media, its history, usage, and how the Generation Y cohort makes use of it.

- Provide an overview of smartphones, using available literature, by elaborating on popular smartphone brands, and establishing the relationship the Generation Y cohort has with smartphones.

- Investigate the Generation Y cohort to illumine facts regarding the cohort, according to literature.

- Assess the marketing models influencing the conceptual framework.

- Examine and discuss factors identified for the conceptual framework

- Investigate the factors used, which are brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

1.3.3 Empirical objectives

In accordance with the primary objective of the study, the following empirical objectives are formulated before the literature review was conducted. Therefore, alterations and additions could be made after more information has been gathered in the literature review.

- Determine Generation Y students' brand loyalty, brand experience, perceived usefulness anticipated benefits, view on brand activities, the perception of brand community, intention to be involved in social media pages of smartphone brands, brand trust, commitment, advocacy intention.

- Determine whether there is a difference in male and female, different ages, and different universities, responses regarding brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, advocacy intention.

- Empirically test a model to assess factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students.

- Ascertain whether brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are mediated by intention to be involved, to brand trust.

- Test, whether intention to be involved, is mediated by brand trust, to commitment, and whether brand trust is mediated by commitment, to advocacy intention.

1.4 CONCEPTUAL MODEL

Figure 1-1: Conceptual model

The conceptual model shows brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community as independent variables. The independent variables are mediated through intention to be involved to brand trust. Intention to be involved is mediated through brand trust to commitment. Brand trust is mediated to the dependent variable through commitment. The dependent variable is advocacy intention. Further explanation of the scales is made in Section 1.5.2.4 and Chapter 3.

1.5 HYPOTHESES

The following hypotheses are based on the conceptual model as laid out in Section 1.4. Several other hypotheses are stated in Chapter 5 as they pertained to certain sections. Therefore, the following hypotheses were put in bullet form.

- Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students is a ten-factor structure comprising brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

- Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community have a direct, positive effect on intention to be involved.

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- Intention to be involved has a direct, positive influence on brand trust.

- Brand trust has a direct, positive influence on commitment.

- Commitment has a direct, positive influence on advocacy intention.

- Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are mediated by intention to be involved, to brand trust.

- Intention to be involved is mediated by brand trust, to commitment.

- Brand trust is mediated by commitment, to advocacy intention.

- There is a statistically significant difference between female and male Generation Y students, Generation Y students from the varying universities surveyed, and different Generation Y student age groups regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

1.6   RESEARCH DESIGN AND METHODOLOGY

The study comprised of a literature review and an empirical study. Quantitative research, using descriptive research and the survey method was used for the empirical portion of the study.

1.6.1   Literature review

The empirical portion of this study was supported by reviewing South African and international literature, whereby secondary sources were used, which included pertinent textbooks, the internet, journal articles, business articles, academic articles, newspaper articles, online academic databases, online video depositories, as well as online teaching aids.

1.6.2   Empirical study

The empirical portion of this study comprised the following methodology dimensions:

1.6.2.1   Target population

The target population, relevant to this study, were full-time Generation Y students, aged between 18 and 24, registered at South African higher education institutions (HEIs). Therefore, this study included foreign nationals as well as foreign students who are enlisted at South African HEIs. The target population was defined as follows:

- Element: Generation Y full-time students aged between 18 and 24.

- Sampling unit: South African public registered HEI's.

- Extent: Gauteng Province, South Africa.

- Period: 2017.

1.6.2.2 Sample frame

The sampling frame consisted of 26 registered South African public HEI's (Higher Education Institutions). From the sampling frame, a judgement sample of three HEI campuses, one a traditional university, one comprehensive university, and the other a university of technology, located in the Gauteng Province, were selected. A convenience sample of full-time students was selected from the three HEI's. The reasoning behind choosing Gauteng Province as the main sample of this study was that it encompassed the largest share of the South African population (StatsSA, 2017). Gauteng Province is also the economic hub of South Africa and is South Africa's economic powerhouse, as it contributes to 34 per cent of the national economy, and seven per cent of the GDP of the entire African continent. It achieves this with only 1.4 per cent of South Africa's land area (Alexander, 2017).

1.6.2.3 Sample method

A non-probability, convenience sample of Generation Y full-time students, between the ages of 18 and 24, was selected to perform this study. The self-administered questionnaire was hand-delivered to the participating lecturers (from whom permission was sought) at each of the three HEI's. These lecturers were asked to distribute the questionnaire to their students after class.

1.6.2.4 Sample size

According to Wolf *et al.*, (2013:914), it has been proposed that the minimum number of respondents to be used in a covariance-based structural equation model is 200. However, reliable observations are more likely to occur when there is a 10:1 ratio of cases to free parameters. Furthermore, when seven or more constructs are used, the sample size should be between 300 and 500 (Hair *et al.*, 2010:662). Moreover, similar studies regarding smartphones had sample sizes of 358 (Ting, 2011) and 362 (Kim & Ko, 2012:1483). However, to ensure that enough viable questionnaires were available, a sample size of 500 - 600 full-time Generation Y students were deemed satisfactory for this study, as there were 60 items in the questionnaire. The questionnaire was administered to each campus, where a minimum of 140 questionnaires per campus was deemed satisfactory. It was assumed that not all the 600 distributed questionnaires would be viable for use.

1.6.2.5   Measuring instrument and data collection method

This study made use of self-administered questionnaires to acquire the necessary data. Previously used scales from accredited articles were adapted and used in this study. As such, brand loyalty (Sahin *et al.*, 2011), brand experience (Sahin *et al.*, 2011), perceived usefulness (Rauniar *et al.*, 2014), anticipated benefits (Ashley *et al.*, 2011), brand activities (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011), and brand community (Laroche *et al.*, 2013) are proposed as independent variables. Furthermore, intention to be involved (Rauniar *et al.*, 2014; Ashley *et al.*, 2011), brand trust (Sahin *et al.*, 2011) and commitment (Badrinarayanan & Laverie, 2013) were mediators. Lastly, advocacy intention (Wallace *et al.*, 2014; Lee *et al.*, 2010) was seen as the final dependent variable.

The questionnaire consisted of three sections in which scaled responses were measured using a six-point Likert scale ranging from strongly disagree (1) to strongly agree (6). A cover letter was added to the questionnaire to explain the nature of the study, the contact details and institution of the researcher, and to inform regarding confidential and voluntary nature of the questionnaire. Section A was structured to gather demographic data of respondents. Section B assessed smartphone brand preference and social media usage. Section C focussed on the scales adapted from above-mentioned researchers. The main focus of the questionnaire was in Section C. Moreover, a pre-test and pilot test was conducted to ensure the viability and brevity of all questions in order to acquire the necessary data.

1.6.3   Statistical analysis

The captured data were analysed using the Statistical Package for Social Sciences (SPSS), Version 25.0 for Microsoft Windows. The following statistical methods were used on the empirical data sets:

- Exploratory factor analysis

- Descriptive statistics

- Common method bias

- Correlation analysis

- Juxtaposition

- Structural equation modelling

- Reliability and validity

1.7 ETHICAL CONSIDERATIONS

The research study was conducted after acquiring the appropriate permissions and permission of those from whom data were taken. Participation was voluntary and commenced in a way that protects the anonymity, and confidentiality of respondents.

The research proposal, as well as the questionnaire, were submitted to the North-West University Research Ethics Committee. This was done in accordance with the university policy for ethical consideration. The committee evaluated the questionnaire to ascertain whether information of a sensitive nature would be required, and whether "at risk" individuals could be negatively affected. The study was deemed feasible and presentable to Generation Y students and passed the committee's standards. The risk clearance stated that there was no risk to respondents. Consequently, an ethical clearance number was given: ECONIT-2017-051. Approval (NWU-GK-2017-024) was granted by the NWU Research Data Gatekeeper Committee (RDGC). This ethical clearance letter, code, and questionnaire were shown to the lecturers from the varying universities before respondents were approached.

1.8 CLARIFICATION OF TERMINOLOGY AS USED IN THIS STUDY

- Generation Y: Individuals aged 18-24, born between 1986 and 2005.

- Social media/ Social networking site: Internet-based sites and applications where information is shared, such as Facebook, Twitter, Instagram, Google Plus, YouTube.

- Smartphone: Cellular phone which can access the internet and download applications.

- Relationship marketing: Marketing conducted by organisations to motivate long term communications, and consumption of the organisation's products or services.

1.9 CONTRIBUTIONS OF THE STUDY

This study contributes to a competitive market by showing smartphone manufacturers how social media can aid in their marketing efforts. This study showed the importance of relationship marketing and aimed to show how organisations can reach brand advocacy, which is the highest form of relationships in the organisation-customer dynamic. Moreover, this study showed how Generation Y students feel regarding certain smartphone brands as well as social media sites. This culminated in a robust model that can be used by organisations to improve their social media relationship marketing with their customers. As such, this study condensed theory regarding

smartphones, social media, and relationship marketing. Social media and relationship marketing are then expanded on with the use of data from respondents, which can be useful and informative to organisations, especially those in the smartphone sphere.

1.10 CHAPTER CLASSIFICATION

This study comprises the following chapters:

Chapter 1 Introduction and background to the study:

In this chapter, the broad scope of the study is outlined and a background to the study is shown. The problem statement, research objectives, and the methodology that was used are discussed.

Chapter 2: In-depth review of relationship marketing, social media, smartphones, and the Generation Y cohort

The theory in this chapter was sourced from numerous studies, which is where the importance of certain elements regarding relationship marketing, social media, smartphones, and the Generation Y cohort stemmed from. As such, this chapter focusses on a brief introduction to the chapter, followed by the core of the chapter, which is relationship marketing. Relationship marketing is explained by examining several factors, namely, a brief history of relationship marketing, shortcomings of traditional marketing, characteristics of relationship marketing, and successful relationship marketing. Moreover, international relationship marketing, customer relationship management, and advantages of relationship marketing will be discussed. The next section discusses social media, which is elaborated on by discussing the introduction to social media, the importance of social media, and social media usage. The social media sites investigated in this study were Facebook, Twitter, Instagram, Google Plus, and YouTube. Social media and business were discussed, followed by social media marketing, social media data, social media privacy, and future trends. In order to put this study in context, smartphones were discussed next, to give an overview of the important smartphone brands globally as well as nationally. As such, this section discusses each of the most popular smartphone brands, which are (as of 2018, in South African context, in no particular order) Samsung, Apple, BlackBerry, Nokia, LG, Sony, Xiaomi (added due to importance in international markets), and Huawei. The Generation Y cohort was the final part of this chapter, in which the Generation Y cohort and their relationship with smartphones, the Generation Y cohort and social media, and the Generation Y cohort and relationship marketing are discussed. This chapter ends with a brief summation of the theory set out in Chapter 2.

Chapter 3: Factors influencing social media marketing relationships

This chapter serves to investigate the objectives set out in the empirical objectives portion. This chapter commences with a brief introduction, which is followed by marketing models that influence the conceptual framework of this study. Next, the factor identified for the conceptual framework are discussed by stating the factor, author, and a brief definition, in table form. Each factor is then explained in more detail, to provide meaning in the context of this study. The factors are brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention. The chapter concludes with a brief summary of the chapter.

Chapter 4: Research design and methodology

This chapter highlights the research methodologies used in this study. After the brief introduction, this chapter commences with the research paradigm discussion, as well as stating the paradigm used. Next, the marketing research process is discussed, followed by the research design. The sampling procedure is discussed, as well as data collection methods, and data preparation. The statistical analysis portion follows, which consists of exploratory factor analysis, descriptive statistics, common method bias, correlation analysis, juxtaposition, reliability and validity, after which the factor analysis portion and the confirmatory factor analysis portion commences. Structural equation modelling follows, after which a brief summary is given of the chapter.

Chapter 5: Results and findings

In this chapter, the analysis of the data, the interpretation, and findings are discussed in greater detail. The data are discussed after the introduction, starting with the pilot test results, followed by the data gathering process. The preliminary data analysis follows, after which descriptive statistics are discussed, and then common method bias. Correlation analysis is next, followed by the juxtaposition between variables. Structural equation modelling will make up the last part of the chapter, after which a short summary is given for the chapter.

Chapter 6 Conclusions and Recommendations:

This chapter emphasises the whole of the study in a conclusion that has been drawn from both the theory and the empirical data. The chapter commences with a brief introduction, after which an overview is given of the study. Next, the main findings of the study are discussed, after which contributions of the study are illuminated. Limitations and future research opportunities are given, followed by a brief conclusion of the study as a whole.

1.11 CHAPTER 1 SUMMARY

The introduction to the study serves to provide an overview of the aim of the study and to provide direction regarding primary goals, the theoretical goals, and the empirical goals. Moreover, this chapter provided an overview of the sample elements such as target population, sample frame, sample method, sample size, measuring instrument and data collection method. Moreover, it states the statistical analyses to be followed, as well as a layout for each chapter to follow.

This study aims to contribute to scarce literature available regarding Generation Y students' relationship with smartphone brands and how social media mediates this connection. Moreover, it aims to provide a complex, yet flexible model to both explain the intricacies of human behaviour regarding Generation Y students following smartphones on social media. The model aims for flexibility for future studies to be able to make use of it as well, even outside the smartphone scope.

The next chapter focusses on the literature review of this study to provide an overview of the theory that accompanies the primary objective of the study.

CHAPTER 2 RELATIONSHIP MARKETING, SOCIAL MEDIA, SMARTPHONES, AND GENERATION Y

2.1 INTRODUCTION

The purpose of this chapter is to discuss the theoretical objectives as set out in Chapter 1. The background to relationship marketing, social media, smartphones, and the Generation Y cohort will serve in providing additional information for the empirical portions of this study, which are discussed in Chapter 3 and Chapter 5.

The classical marketing paradigm was responsible for most of the marketing efforts throughout human history. However, in the late 1980s to early 1990s, it became clearer that the traditional marketing methods had lost their potency (Payne *et al.*, 2004:2-3). Thus, relationship marketing was found new roots in customer relationship marketing, which served as a more formal strategy in handling and managing customer relationships (Cross, 2018). A natural progression for relationship marketing came in the form of interaction via social media sites as Web 2.0 (the interactive web) entered humanity into a collective, interactive sphere. This sphere lent itself to new channels of business and two-way communication (Lee, 2018:4). This shift towards building relationships, which is augmented by customer relationship management, driven by social media has found itself at its zenith, largely due to the world going mobile. Smartphones and tablets now make up a majority of internet traffic, and a high volume of that traffic is spent on social media (Shanker, 2017; Leonard, 2012). Therefore, there are benefits for both organisations and consumers who use social media to interact with one another (Rendler-Kaplan, 2018; Rob, 2016).

The following layout will be used for this chapter. Section 2.2 will investigate relationship marketing by examining briefly the history of relationship marketing (Section 2.2.1), shortcomings of traditional marketing (Section 2.2.2), characteristics of relationship marketing (Section 2.2.3), successful relationship marketing (Section 2.2.4), international relationship marketing (Section 2.2.5), customer relationship management (Section 2.2.6), advantages of relationship marketing (Section 2.2.7), and a summary (Section 2.2.8). Hereafter, social media will be discussed in Section 2.3 by addressing the following topics: introduction to social media (Section 2.3.1), importance of social media (Section 2.3.2), social media usage (Section 2.3.3), Facebook (Section 2.3.3.1), Twitter (Section 2.3.3.2), Instagram (Section 2.3.3.3), Google Plus (Section 2.3.3.4), YouTube (Section 2.3.3.5). The next discussion throughout Section 2.3.4 is about social media and business; it addresses social media marketing (Section 2.3.4.1), social media data (Section 2.3.4.2), and social media privacy (Section 2.3.4.3). Future trends are discussed in Section 2.3.5. Smartphones are discussed Section 2.4, which elaborates on the most popular

smartphone brands (Section2.4.1) such as Samsung (Section 2.4.1.1), Apple (Section 2.4.1.2), BlackBerry (Section 2.4.1.3), Nokia (Section 2.4.14), LG (Section 2.4.1.5), Sony (Section 2.4.1.6), Xiaomi (Section 2.4.1.7), and Huawei (Section 2.4.1.8). Lastly, the Generation Y cohort is discussed in Section 2.5. The subsections are concerned with the Generation Y cohort and smartphones (Section 2.5.1), the Generation Y cohort and social media (Section 2.5.2), the Generation Y cohort and relationship marketing (Section 2.5.3). The reverse order for the discussion in Section 2.5 is due to smartphones being discussed in the section prior to Section 2.5, and to culminate the section with relationship marketing and the Generation Y cohort, as it is the focal point of the study. The chapter summary follows in Section 2.6.

Note: Alphabet is the parent company to Google, under which Google Search, Android, among other sections fall. This study will refer to Google, simply as Google, and Android, as Google's Android, in order to minimise confusion. Moreover, Google Plus is generally known as Google +; however, this study will refer to it as Google Plus. Lastly, this study addresses the notice that Google Plus was to be shut down in 2018-2019.

2.2   RELATIONSHIP MARKETING

Relationship marketing (RM) focusses on loyalty and long-term customer engagement, instead of customer acquisition and individual sales. Therefore, the goal is to forge strong, emotional bonds, which ideally will lead to increased exposure via word of mouth, free-flowing information between the organisation and customer, and continuous business (Rouse, 2014).

One of the main goals set out in RM is identifying drivers that influence important outcomes for an organisation and to understand the relationship between those drivers and outcomes (Svensson, 2004:469-470; Hennig-Thurau *et al.*, 2002:231). It is crucial for organisations to identify which factors hinder potential relationships with customers so that those factors can be overcome. This progress towards building business relationships can yield many benefits for the firm, for example, increased profitability (Ashley *et al.*, 2011:749). Therefore, an important question to ask within the RM sphere is: how can an organisation motivate customers to be more engaged? This question has been known to blur the lines between commercial and psychological enterprises, as modern-day commerce is an organisation-customer co-creation. To this end, it has been suggested that marketers focus less on attaining new customers and more on motivating current customers to remain loyal and to advocate the products or services through actions such as word of mouth (Walz & Celuch, 2010:95).

In this section, the aim is to explore the RM framework and the factors surrounding it, such as the history of RM, shortcomings of traditional marketing, characteristics of RM, successful RM,

international RM, customer relationship management, advantages of RM (Biswas, 2014:v-xi; Little & Marandi, 2013:ix). Relationship marketing had a long history, before the theoretical foundations for it was conceptualised. The next section briefly investigates this history post conceptualisations, to provide an overview of the theoretical basis behind it.

2.2.1 A brief history of relationship marketing

Marketing has evolved through several stages: the trade era (pre-industrial), production era (1860s – 1920s), sales era (1920s – 1940s), marketing development (1940s – 1960s), marketing the company (1960s – 1990s). Throughout these eras, transactional marketing was the predominant form of marketing (Krokhina, 2017:1;19). Transactional marketing focussed on selling, and its strategy was built around a single purchase, to move high volumes of inventory (Hendricks, 2018). This form of marketing was so prevalent that it was the de facto method of conducting marketing until circa 1990. However, from the 1990s, the focus began to shift from acquisition to retention of customers (Muriuki, 2015:8). Thus, the purpose of marketing shifted towards including customers, suppliers, and other stakeholders into a firm's developmental and marketing activities (Maxim, 2009:290; Sheth & Parvatiyar, 1995:399). This shift has resulted in mutually beneficial relationships between organisations and customers, which has become commonplace and widely accepted. Furthermore, this has led to a change in businesses in that they have started to realise that real value has a two-way flow. This means that the customer receives real value from the business relationship and the business then receives real value in the sense of enhanced profitability (Christopher *et al.*, 2008:ix).

It has been suggested that RM is not a new phenomenon and has been in practice since the inception of commerce (Gummesson, 2015:301-302; Gummesson, 2002:269). However, the realisation of the importance of RM changed the way in which business is conducted (Garst, 2012). Traditional marketing had many flaws (Ashe-Edmunds, 2017), which is why relationship marketing is such an important concept. The next section will investigate some of these flaws, to establish why marketers had to reorient businesses towards relationship marketing.

2.2.2 Shortcomings of traditional marketing

In this study, traditional marketing refers to methods of marketing and advertising that were mostly a one-way movement of information, from the organisation to the individual (Cave, 2016). Traditional marketing tools include newsletters, billboards, newspaper advertisements, flyers, television commercials, and radio commercials (Higuera, 2011).

The traditional marketing methods were formed in a time when seller markets were growing exponentially, where demand was larger than supply, and where needs and wants were known

(Lambin, 2008). In recent times, methods of advertising have evolved, even though there still exists a transition period from traditional to contemporary methods. This becomes evident in attempting to reach customers from older generations, those without internet connections or who are not tech savvy; they are easier to engage through newspapers, billboards, television, and radio (Higuera, 2011).

The benefits entrenched in contemporary RM has certain aspects that traditional marketing struggles to compete with. In traditional media there is little if any, the interaction between the individual and the medium used and the marketing efforts are much more expensive than those in new methods of marketing (Cave, 2016). Furthermore, traditional methods use static text or media to promote a product or service. Thus, if a potential customer misses a commercial, that marketing opportunity is lost. It is a similar problem regarding printed advertisements; once an advertisement has been placed, the seller cannot update those reading it regarding any changes to the offer (Mcrill, 2017). Thus, the shortcomings of traditional marketing are plentiful (Saif, 2017; Mcrill, 2017; Kokemuller, 2012; Higuera, 2011), and it has been stated that traditional methods of marketing are slowly becoming obsolete, which necessitates a rise in contemporary marketing methods (Cunningham, 2018). DeMers (2016a), who argues that traditional methods will not subside, however, agrees that new methods of marketing will continue to grow in popularity and engulf much of the marketing pressure. Contemporary marketing and RM will continue to grow as it shows better success rates, more sales, better relationships, and generates more leads (Roberts, 2016).

Traditional media, even though its use is decreasing, will most likely be used for many years to come. However, for marketers who want to focus on traditional marketing, the following should be kept in mind: Search engine marketing now surpasses advertising on television, printed advertisement revenues are the lowest they have been since 1950, and the world is moving towards mobile technology as searches on mobile has surpassed that of searches from a desktop computer (Anderson-Miller, 2015:13). To that end, the next section will briefly examine the characteristics of RM to illuminate the factors surrounding it.

2.2.3   Characteristics of relationship marketing

Relationship marketing follows a strategy that focusses on retaining and satisfying customers as opposed to simply acquiring customers (Ciotti, 2016; Grönroos, 1994:4). Organisations that focus on an RM culture have several aspects that define how they do business: customer retention will be a priority; long term relationships are encouraged; the intent is to complement a customer's life with their product, instead of simply selling to them; and the customer is frequently contacted on a follow-up basis (Learn Marketing, 2018; Roberts-Lombard & Du Plessis, 2012:155).

Relationship marketing is a long-term commitment; it emphasises retaining customers, customer service is integral to the process, customer contact is frequent, there is a high degree of commitment from both the customer and the organisation, and there are cooperation and trust between the organisation and the customer (Mahardika, 2014). Therefore, it is important for organisations to have a relationship culture in which interaction with customers is encouraged. This could be supplemented by organisations running regular polls and surveys, and suitably implementing the feedback into the organisation (Marketing Schools, 2012; Svensson, 2004:470). Interaction also takes on a form of spontaneity, such as making customers feel appreciated and giving them discounts, vouchers, and the like for them to know that their support is valued (Cross, 2018). Moreover, personal attention and appreciation are highly valued by customers; as such, organisations should remember that their customers are people, not simply numbers, which allows for a relationship to exist and grow (Sloan, 2017).

Two fundamental factors in the growth of relationship marketing are commitment and trust. The organisation focusses on building long-lasting bonds, which leads to trust. This trust is hard won by the organisation committing itself to fulfil the promises it makes to its customers (Mack, 2017). The organisation makes promises in order to attract an individual who, after the promises are fulfilled, trusts the organisation for the continuity of that fulfilment. As a relationship of trust is built, a customer who is satisfied with the interactions with the organisation will become more committed to it. Therefore, reliability and credibility are two critical factors for organisations to harbour commitment from customers (Rahab, 2012:130). Another important aspect is a shared value; that is, individuals are more likely to use and bond with an organisation or brand that shares similar values to them (Le Roux, 2011:32). Shared values inform customers about the organisation's identity and its views (Fong, 2013). Creating value is cyclical in nature and promotes good relationships and stronger bonds with the organisations. In turn, when there is a strong relationship, where trust and commitment are present, they present essential value components, which strengthens the bond (Sivanandamoorthy, 2013:5-6). It is therefore crucial that organisations identify what customers perceive as value regarding specific offerings, and provide that value where viable (Hann, 2012). One way in which value can be provided is to understand what customers perceive as value. Furthermore, the usual way to stand out from the competition is to find real differentiation opportunities, which can only be done when the business is innovative. This begins with understanding the value proposition, identifying segments where the organisation can provide more value than competitors, aiming to create a win-win price, and focussing resources on the most valuable customers (Stark & Stewart, 2011). Thus, as innovativeness is crucial to the business, organisations should focus on relational cultures, with an emphasis on innovativeness (Lander, 2016).

While new customers are a very important aspect to organisations, the goal should be to turn new customers into returning customers (Marketing Schools, 2012; Grönroos, 1994:10). In motivating customers to become long-term customers, a business should provide valuable content, they should interact with customers, should provide more information and content than promotional material, should reward loyalty, and should update their content and keep relationships fresh (McEachern, 2018). When conducted correctly, individuals are taken from being switchers to becoming committed to the brand (Sofian *et al.*, 2011). The following figure illustrates the loyalty pyramid, which shows where most customers are in the beginning, to where they go as the relationship grows.
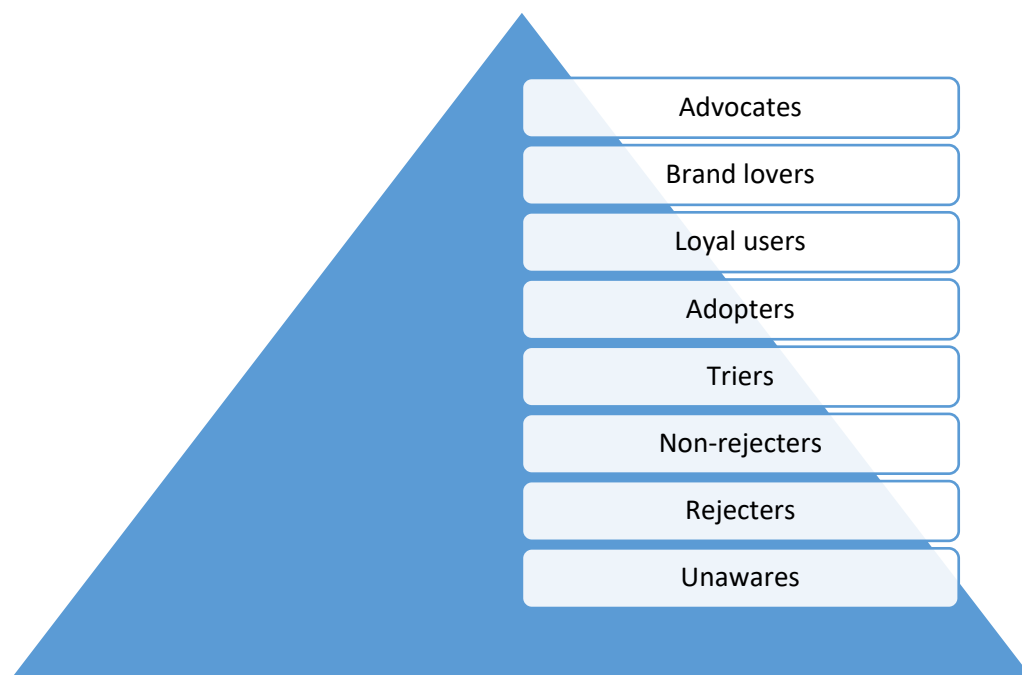
Figure 2-1:   Loyalty pyramid (Cealti, 2017)

Organisations must first make sure that individuals become aware of their existence. From there they are taken through a process where they try the product or service, become loyal users, love the brand, and are finally advocates (Cealti, 2017).

From the organisation's point of view, a powerful driver is profit. Although the profit increase would differ between industries, there is a consensus that, in general, retaining customers is more profitable than finding new customers (Parrish *et al.*, 2015:24). However, despite being a well-known marketing mantra, achieving a high level of success can oftentimes be difficult (Mosley, 2018; Hunt *et al.*, 2006). Despite the difficulty, there are certain areas that organisations can focus on. The next section examines some of the ways in which RM can be conducted successfully.

2.2.4 Successful relationship marketing

The internet and social media have made it easier to reach and communicate with customers. Notably, this has led to an era where customers can easily seek and find information about an organisation, as well as switch from one brand or retailer to another (Chiou *et al.*, 2013:3). In order to dissuade customers from switching, an organisation should focus on providing quality customer service. This is a crucial point, as it ties into emotion, and emotion is an important aspect in forming a relationship. Therefore, leading customers to have happy and positive emotions is paramount to forging long-term, healthy relationships (Olenski, 2013a; Van Vuuren *et al.,* 2012:85).

Switching has become much easier, which means that satisfying needs and building relationships, as well as replying to unhappy individuals, should be a priority for organisations (AG, 2018; Bonar, 2007:73). Those who are unhappy with services are more likely to complain and tend to share the complaint five or more times, which can be detrimental to an organisation's image (Bal, 2014). Consequently, there are several factors which impact the individual's view of a brand and thus whether a relationship can be successful. Individuals tend to seek out different experiences and want to be engaged in an experience that elicits emotions, which then take hold in their memory. Therefore, the goal should be in delivering a brand experience that will lead the individual to prefer the brand to other brands and thus build loyalty and evangelism (Iglesias *et al.*, 2010:572). However, there are numerous factors that should be taken into account in this digital era.

The immediacy with which opinions can appear online and on social networks has caused a radical shift in how the spread of information has changed. Now, volume and valence of consumer postings, such as reviews, even from unknown individuals on social media has a significant impact on product sales and is much farther reaching than the traditional word of mouth (Chen *et al.*, 2011:86). Moreover, organisations should take note of the fact that social media users tend to consume much more content than they contribute. It is, in fact, a small number of individuals that make up most of the content on a brand's social media pages. However, even those who do not contribute at first, tend to contribute at a later stage; therefore, it is the onus of organisations to ensure that these 'quiet' users are taken in by the content posted by brands so that they too will contribute (Wakefield, 2016:10). To that end, creating and engaging with the online community helps to build trust and reinforces confidence in the brand, which helps 'passive' users to engage and ask questions. Answering these questions promptly and engaging with passive individuals as well as those who provide content builds brand equity and inspires brand advocacy (Griffiths, 2016).

Relationship marketing has intrinsic difficulties, which can be overcome; however, the method of overcoming depends highly on the business. This is even more prevalent when businesses expand across international lines, where they must take note of the differences between the customer basis in different countries, as methods of RM may vary. As such, the next section will briefly explore international RM.

2.2.5 International relationship marketing

Relationship marketing on social media has shifted towards creating brand pages in different countries to accommodate different cultures, beliefs, and practices. It is for this reason that smartphone companies have made pages on Facebook, such as Samsung, which has Samsung Mobile South Africa, and Samsung Mobile US (Facebook, 2018a; Facebook, 2018b). This allows organisations to transcend borders with their products via the extensive reach of social media and the option of shipping products worldwide (Amazon, 2018; Mulambo, 2017). Therefore, it has become necessary for both scholars and organisations to focus on relationship marketing strategies that suit different countries and groups, as cross-national homogeneity cannot be assumed (Samaha *et al.*, 2015:78; Steenkamp, 2005:6).

As organisations become more globally-oriented, they should ensure that their cultural adaptations are sufficient, such as controlling for individuals and collectivism. Moreover, as cultures can differ greatly from region to region, organisations must focus on customisation of products or services to cater to those differences (Samaha *et al.*, 2013). This has become increasingly crucial as from the 2008 economic crisis where an increased number of organisations have started to look at high-growth countries to fulfil targets (Bressan & Signori, 2014:1230).

As more organisations focus on the global arena to meet growth targets, systems are becoming increasingly important to maintain and gauge their worldwide efforts. These efforts are greatly rewarded when organisations succeed in maintaining databases and keeping in contact with customers. Therefore, many organisations that seek better relationships with customers employ a customer relationship management team (Salesforce, 2017). The next section will briefly focus on customer relationship management to explain how customer relationships are managed.

2.2.6 Customer relationship management

Customer relationship management (CRM) has been around circa 1990. The exact definition has been contested over the years by academics, consultants, and IT vendors; however, early CRM focussed actions arrived in the form of computer software in 1993, by Siebel Systems Inc (Buttle & Maklan, 2015:3). Customer relationship management aims to understand the market and consumer behaviour to improve the experience and value which the customer receives through

interaction with an organisation (Rogla & Chalmeta, 2016:1462-1463). In the current business environment, CRM is conducted by using technology to maximise the value of customers to the organisation (Moretti & Tuan, 2013:225). Post relationship marketing, CRM was born. That is the practical application of values and strategies between a customer and seller, using human and information technology inputs (Gummesson, 2015:304).

CRM is seen to be dominated by three characteristics, strategic CRM, operational CRM, and analytical CRM. Strategic CRM aims to keep customers satisfied and at the core of the business; operational CRM focusses on the automation part of customer processes; and analytical CRM consists of transforming data acquired into actionable insight (Buttle & Maklan, 2015:4). These are conducted using CRM systems which are designed to compile customer information from across different channels, such as the company's website, telephone, live chat, marketing material, and social media. Furthermore, staff is given information gathered about consumers such as purchase history, buying preferences, and concerns (Ehrens, 2014). Through this information and systems, CRM can help improve a business that, in turn, aids in improving existing data, insight into acting on data, enhancing management of sales teams, growing sales, and supplementing informed decision-making (Burnham, 2014). CRM can benefit organisations in managing customers, organising them, as well as tracking interactions with them. Moreover, it is unrealistic for larger organisations to deal with thousands to millions of customers without the use of a software database (Buttle & Maklan, 2015:4). With interaction, software, and relationship culture, the company has all the tools it needs to foster relationships and inspire loyalty amongst its customers (Kulpa, 2017).

CRM and social media have a symbiotic relationship, which has become crucial for organisations who take CRM seriously. Online interactions grew by 70 per cent between 2013 and 2014 as customers opted to use social media for customer support, and this brought an important benefit to the fore. Through CRM on social media, businesses can develop a deeper relationship with consumers (Coen, 2016). Several of the aforementioned sections briefly touched on the advantages of relationship marketing. The next section will clarify and substantiate these advantages.

2.2.7 Advantages of relationship marketing

Organisations and individuals have been taking part in relationship marketing for centuries without realising it. Integrated into the human experience, as well as the business experience, is the knowledge that building relationships enables both the individual and the organisation (DMG, 2016). However, marketing often focusses on the product or service and not the individual, which has the unfortunate result of individuals not being understood properly by marketers (Drell, 2016).

When marketers and researchers do however focus on the individual and the relationship, there are several advantages that present themselves for the consumer and the organisation (Ruiz, 2012; Marzo-Navarro *et al.*, 2004:425). These advantages are shown in Table 2-1 (Reed, 2015; Little & Marandi, 2013:33-34).

Table 2-1: **Advantages of relationships for the customer and supplier (Reed, 2015; Little & Marandi, 2003:33-34)**

Organisation	Customers
Added value	High-quality service
Increased loyalty	Customised products
Cross-selling (customer share)	Reduced anxiety
Premium pricing	Feeling valued
Lower promotional costs	High-quality service

Advantages, particularly in the digital age, are of utmost importance when considering the interconnectedness of individuals and brands (Mosley, 2018). Therefore, when considering advantages such as positive reviews and testimonials, as well as evangelist marketers (consumers who convince others to consume) or brand advocates, brands can realise higher profits; however, converting consumers to this level can be difficult (Reed, 2015; Gummesson, 2002:20). There are several ways that have proved useful in this regard, however, such as talking and listening to customers, ensuring that the brand differentiates itself from others, providing topics of discussion and offering a platform to do so, simplifying content so that it is easily and readily shareable, and empowering employees in order to improve relationships between the organisation and the customer (Cohen, 2017). Moreover, as building relationships is no easy task, organisations must ensure that they spend adequate resources on communicating, exceeding expectations, getting feedback, connecting, and showing appreciation. This must be managed by focussing on the most important customers of the business, as resources tend to be finite (Kappel, 2017). When organisations have found the right customers to target, they can engage with them, build relationships and foster loyalty (Kulpa, 2017). Organisations must ensure however that the loyalty they get from customers does not simply come from feelings but from behaviour. Thus, as feelings are not always an accurate predictor, organisations must focus on buying behaviour by assessing data attained through CRM (Keiningham *et al.*, 2009). When data is used, organisations can find out what customers want and who to target, and ultimately motivate customers towards evangelism (Sreenivasan, 2017).

Converting customers into advocates, despite being difficult, is a strategy that is valuable in several ways. These advocates preach the products of brands for no remuneration, they defend the products and convey marketing messages to others (Patel, 2015). Thus, converting customers into brand advocates is one of the most important advantages of relationship marketing. These advocates enable a high level of return on investment, which is ultimately the bottom line of many businesses (Blakely-Gray, 2017; Weisberg, 2015). This section highlights the final section of relationship marketing. The next section focusses on investigating the phenomenon of social media and how it has affected relationship marketing.

2.3 SOCIAL MEDIA

Social media encompasses a set of online tools which are used to socialise in a virtual reality. Therefore, social media refers to a wide variety of web-based technologies and services which include blogs, microblogs, social networking services, virtual worlds, discussion forums, collaborative editing tools, social sharing services, and text messaging (Hansen *et al.*, 2011:18). The most popular forms of social media are blogs, microblogs, social networks, media-sharing sites, social bookmarking and selection sites, analysis sites, forums and effective worlds, and social news sites (Kaur & Nanak, 2016:35; Saravanakumar & Lakshmi, 2012:4445).

2.3.1 Introduction to social media

The inception of social media can be traced back to the dotcom bubble, after which the phrase "social media" was used as a buzzword for a variety of internet related services. As the years progressed, the term slowly morphed into what it is today: a social space on the internet used by the worldwide population to interact with one another (Boyd, 2015:1). The advent of Web 2.0 led to the social part of social media realising its potential through the interactivity which it presented (Getting, 2007). Web 1.0, for the sake of comparison, comprised a host of static websites which did not present an opportunity for interaction (Technopedia, 2018).

This change towards a social web has been a gradual one. Below are some of the highlights in the timeline towards 'our' current social media state.

Table 2-2:   **Social media timeline (Johnson, 2016)**

Year	Event
1978	Bulletin Board system launched
1985	IOL
1997	Google
1999	Blogger
2002	Friendster
2003	LinkedIn
2004	Facebook Yelp Catster
2005	YouTube
2006	Twitter
2007	Tumblr
2010	Instagram
2011	Pinterest Google+ Snapchat
2013	Vine

Some of the most notable marks on history are the start of Google in 1997; the founding of LinkedIn in 2003; Facebook in 2004; Youtube in 2005; Twitter in 2006; Instagram in 2010; and Snapchat in 2011 (Johnson, 2016).

In its earliest form, several individuals realised that social media would become a phenomenon and set out several principles for relationship building via the internet. A few of these principles, which held steady up to this day, are: to include useful information, to frequently update sites with new content, to establish sites that are easy to navigate, and strive to keep individuals on the site (Thimothy, 2017; Salisbury, 2017; Briones *et al.*, 2010:38). However, when entering the social media landscape, organisations must also position themselves in such a way that consumers will want to take part in their social media endeavours. As such, organisations must create memorable, lasting impressions in the minds of consumers (Boateng, 2015:308).

It is in realising that the impressions made on the individual are important, that brands can ask which other factors are important and whether social media is important for their business at all,

and in that case, which social media site to use (Wertz, 2017). The next section will focus on the importance of social media.

2.3.2 Importance of social media

Social media has become a key factor in the impact on marketing communication and has become an indispensable component of marketing strategies. This can be attributed to the increase in the amount of time that individuals spend on social media, as well as the fact that an abundance of communication takes place using social media platforms (Willis, 2017). Moreover, those searching for businesses will often end up with more information than simply corporate websites, such as Wikipedia entries and links to their social media pages. On these, users can gather information as well as track positive and negative reviews dating back many years (Kaplan & Haenlein, 2010:60). However, this phenomenon works both ways as organisations can also find information on users just as easily (Bratasanu, 2017). Organisations can find unmediated insights into consumers faster than ever before, which they can use to their advantage to foster loyalty towards their brand. It is for this reason that many organisations have embraced social media for all it offers, pros and cons alike (Hudson *et al.*, 2015:69). It is telling of how important social media has become when organisations hire social media editors, churches offer seminars on how to successfully use it constructively, and politicians use it to the fanfare of many (Kietzman *et al.*, 2011:241).

As stated, social media has become a key facet in interaction and marketing; however, there is still a lot of research to be conducted as not that much is known about how emotions and attachment to brands are influenced by social media. Furthermore, the relationship between brand attachment and word of mouth has still not properly been investigated (Hudson *et al.*, 2015:68). Beyond the lack of research regarding certain factors, social media has rapidly changed the way in which organisations communicate with their target audience. As such, marketing activities have had to change as well, to accommodate this new method of communication (Boateng & Okoe, 2015:300-301). This shift towards social media has also initiated an interesting phenomenon where individuals' purchasing behaviour is affected by social media, but they also use social media to seek advice on purchasing products. This quagmire has led to much confusion on perceptions as well as impacts on purchasing behaviour (Hutter *et al.*, 2013:343).

This new way of communication has resulted involves both sides (organisation and customer) where engagement is encouraged. Moreover, there is a sense of co-production in which the audience assists an organisation's process of developing and design, as they comment on services which inspires content and product development. This is better known as crowdsourcing, which is where the organisation's audience offers solutions, shares content and ideas, and helps

in innovation (Bertot *et al.*, 2011:31). Apart from these advantages, organisations which use social media and create content for their brand also enjoy a higher rate of positivity towards the brand (Briones *et al.*, 2010:37). Added to this, friends have been identified as the greatest influencer of whether purchasing decisions are made. Thus, when friends discuss a product online, there is an increase in the likelihood of purchase compared to other methods of engagement. It is for this reason that it's so crucial for organisations to get their audience to share, participate, and talk about their products (Hudson *et al.*, 2014:69). Another important factor in social media usage is the fact that power has shifted from the organisation to the user. It is possible to find information, reviews, comments etc., with a quick search; thus, it is important that organisations embrace the direct contact that social media allows and make full use of it (Mostert, 2015:49).

Social media is important for smartphone brands as it can drive targeted traffic, boost a site's SEO (search engine optimisation), leave users open to the brand's message, allow for targeted marketing, and can help a brand get noticed. Furthermore, queries, compliments, and complaints can be addressed immediately, which reinforces brand loyalty amongst consumers (DePhillips, 2010). The importance of brands to propel and maintain their social media presence will increase along with the uptake of social media, the expected expansion of the types of social media, and the growth in efficiency of their use. Users expect organisations to be on social media to respond quickly and to be fully aware of products (Smith, 2017a). Thus, based on statistics, data, and literature, Samsung and many other smartphone brands are correct in using social media optimally, and Apple, using social media very sparingly, might simply be the exception to the rule of social media being a necessity, not merely a nicety (Chang, 2015; Windels, 2013).

The way business has been conducted for decades has changed significantly since the advent of social media, and marketing is also gearing its efforts towards this medium. As more people join and partake in social media, content and information will continue to grow. In fact, social media is moving humanity towards a global-city state as individuals can communicate with one another and share information on a real-time basis and across many borders (Rauniar *et al.* 2013:7-8). Next, social media usage will be discussed.

2.3.3   Social media usage

Social media, like most technologies, has taken some time to integrate with organisations. However, it has become a matter of change which must be adopted to be able to better engage with the public (Bertot *et al.*, 2011:36-37). To this end, the adoption of social media has grown exponentially over the years for both individuals and organisations (Tuurosong & Faisal, 2014:62-63).

The ever-increasing usage of social media has altered the way in which individuals communicate, which has led to greater exposure of marketing material on social media (Fishburne, 2017; Veszelszki, 2017:3-4; Merlo *et al.*, 2013). The shift in communication power has created a two-way, peer to peer communication reality (Hutter *et al.*, 2013:342-343). This peer to peer shift has also resulted in a rise in contacts on social media, which has seen customers take more purchasing action when friends talk about products than they do via any other advertising means (Hudson *et al.*, 2014:69). To this end, the use of social media by individuals has been shown to be a complex arena where several factors have a role in whether individuals take part. Several of these factors are neuroticism, anxiety levels, emotional stability, and personal contentment. This shows that there are many nuances to social media usage and that there are complexities behind it which are not yet fully understood (Correa *et al.*, 2009:252).

Social networking sites have seen enormous growth as more individuals make use of them and as the mobile generation expands. The following figure shows the increase in the use of social media among the largest social networking sites.
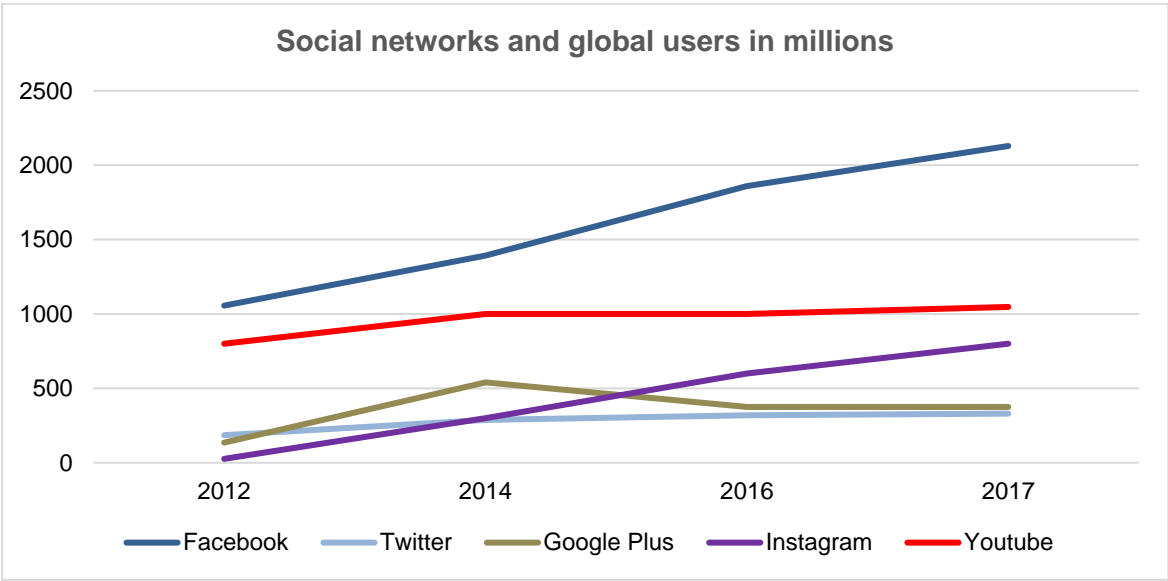
Figure 2-2: **Social networks and users (Statista, 2018a; Statista, 2018b; Statista, 2018c; Statista, 2018d; Agrawal, 2017a; Statistics Brain, 2016b; Gentle, 2014; Marshal, 2014; Bullas, 2012; Fiegerman, 2012; Sacks, 2011)**

Figure 2-2 shows that the growth of the social networks investigated in this study has risen sharply. Despite these users not being always active, the high number of users remains staggering.

In 2012, a new social network was founded, called Google Plus which quickly amassed 135 million users. However, in this time Facebook had grown to more than a billion, YouTube to 800 million, and Twitter to 185 million users. In 2014, another new network, Instagram, was gaining

more users. At this point in time, YouTube had amassed 1 billion total users, Instagram 300 million, Google Plus 540 million, Twitter 288 million, and Facebook nearly 1.4 billion. In 2016, YouTube had grown to 1.35 billion, Instagram had doubled and was on 600 million, and Google Plus had shrunk considerably and had reoriented itself as it could no longer compete with Facebook (Kharpal, 2015). In 2016, Twitter had grown to 319 million and Facebook to 1.86 billion users, predicted to reach 2 billion users by the end of 2017 (Guynn, 2017). Facebook reached its 2 billion users in mid-2017 and grew to over 2.1 billion by the end of 2017 (Statista, 2018a)

There were other notable social networks such as LinkedIn, Pinterest, Tumblr, Snapchat, Reddit, Flickr, Swarm, Kik, Shots, and Periscope in 2017 (Moreau, 2017). However, it has been suggested that brands focus on the social networks which are most suited to their image. Certain social networks draw younger audiences than others, among the myriad of other differences. It is for this reason that brands should first ascertain which demographic they are aiming for, find out which sites this demographic uses and then find out how to use it to their advantage (Jackson, 2017).

This study mainly focused on the largest social media platforms which enabled users to create profiles and share in a community, such as Facebook, Twitter, Instagram, Google Plus, and YouTube. The next sections will briefly explore each of the aforementioned social media, beginning with Facebook.

2.3.3.1 Facebook

Facebook is a social networking site that enables friends and family to connect with one another online. It is the world's largest social network, integrated into many different websites, and allows people and organisations to post content on their profiles (GCF Global, 2016). Facebook, being the largest social media network, had approximately 1.23 billion users every month in 2017, of which 1.15 billion accessed it through mobile devices. It was projected that Facebook would reach 2 billion monthly active users by the middle of 2017 (Popper & Erlick, 2017); a goal which was reached in June of 2017 (Constine, 2017). Facebook allows users to maintain a friends list, upload photos, chat online, partake in community groups and business pages, and recently allows live video streaming (Nations, 2016). A brief history of Facebook aims to illumine its importance in contemporary marketing strategies.

Mark Zuckerberg created "The Facebook" in 2004 after having created several other online social networking sites such as "Coursematch" and "Facemash". It quickly became a success among individuals at Harvard University, as within 24 hours, 1200 students had joined (Phillips, 2007). By March 2004, The Facebook had expanded to Yale, Columbia, and Stanford universities, which

saw Mark Zuckerberg bringing in extra help to cope with the immense growth (Weinberger, 2016). In 2005, the name was changed to "Facebook", after they acquired the right to the domain Facebook.com (Drobnjak, 2017). Controversy arose soon after Facebook became moderately successful, as three students accused Zuckerberg of stealing their idea. This lasted for some years; however, most of it had been cleared up by 2010, and Facebook continued its growth (Carlson, 2010). In 2009, Facebook bought FriendFeed and in 2012, Instagram. Furthermore, it filed for IPO (initial public offering) in 2012, which was the first instance where shares could be bought in the company. At that stage, Facebook had 845 million active users and 2.7 billion daily likes and comments (Zeevi, 2013). In October 2012, Facebook reached 1 billion active users (Smith, 2012a). In 2014, Facebook acquired WhatsApp, one of the world's largest instant messaging programs, for 19 billion US (United States) dollars in cash and stocks, of which the stock price rose towards the time of acquisition, totalling the cost at 22 billion US dollars (Frier, 2014). Continuing their buyouts in 2016, Facebook bought The Eye Tribe - a company that created Oculus, a virtual reality headset with eye-tracking technology (Frier, 2016). By the end of 2017, Facebook had grown to 2.129 billion active users (Statista, 2018a)

Reasons for businesses to use and maintain Facebook pages lie in the sheer number of people on Facebook, the high volume of sites that connect to Facebook, as well the fact that most users like up to four new 'things' every month. Considering that the average individual spends 55 minutes per day on Facebook, any business that does not have a presence on Facebook is foregoing valuable opportunities for exposure (Dudharejia, 2017; Capala, 2015; Baer, 2014). Furthermore, social media in general, and especially with Facebook, can lower marketing expenses as there are many users, and the site matches users with businesses. Facebook Insights helps organisations by providing tools for them to analyse their business pages to know what to alter and update. It helps in building brand loyalty where, without a business page, brands cannot communicate with their audience as easily (Singh, 2018; Ayres, 2016). The next section will focus on Twitter, who they are, their history, and what impact they have made in business.

2.3.3.2 Twitter

Twitter is a social networking, microblogging service which allows members to broadcast short, limited posts called tweets. Twitter is accessed through multiple platforms and devices. Individuals and organisations that tweet, generally tweet into the public space where their tweets are open for anyone to see (McMahon, 2015). When using Twitter, a user can send a "tweet" of 280 (initially 140) characters or less, which promotes better use of words and is easy to scan (Kastrenakes, 2018). Those who tweet can add hyperlinks and contacts to tweets and can send direct messages as well. It is often used to interact with customers, and to promote businesses (Gil, 2017). Twitter found itself amid heavy competition in the social sphere from its inception. Fortunately for the

company, there were several factors which kept it going, such as users having the freedom to follow whom they wanted, freely speak their minds, having a variety of interesting accounts to follow from which there was much to learn. Furthermore, one could retweet, like, and reply to tweets, the topics of which were mostly tied in with current events (Gardner, 2016). Making use of trends on Twitter and innovatively using hashtags are also important aspects of Twitter and how businesses use Twitter (Window, 2016). A brief history of Twitter will follow to show its growth and importance in the social media marketing field.

The idea behind Twitter came about in 2006 when Jack Dorsey envisioned a messaging platform that would act as a status update tool for friends. It would be used to tell others what one was doing at various times (MacArthur, 2016). In 2006, Jack Dorsey sent out the first tweet, and in 2007 tweeting became popular and rose from 20,000 daily tweets to 60,000. By 2008, Twitter reached 1.3 million users (Casti, 2013) which rose to 200 million by 2012, after which Twitter was awarded a patent to secure their platform (MacArthur, 2016). In 2016, Twitter had approximately 310 million monthly active users and was one of the largest social networking sites in the world used by individuals, organisations, celebrities, and world leaders (Statista, 2016a). By the end of 2017, Twitter had amassed 330 million active users, though the trend had slowed down considerably (Statista, 2018c).

Twitter is important to both businesses and individuals for numerous reasons. It helps both listen and learn, it greatly speeds up customer service, and it creates a digital footprint of organisations who use this platform (Blumenfeld, 2015). Furthermore, Twitter adds credibility to a business, which is substantiated by the fact that communication and feedback can happen in real time. This, in turn, helps drive traffic towards both the brand and the site which the organisation uses (Fredrick, 2016). Moreover, Twitter's high rate of use means that many of the tweets are about businesses; therefore, if a business is not on Twitter, it is unable to respond to some of these tweets. Thus, using Twitter is important simply because so many others are using it (Hyken, 2016). Due to so many people using Twitter, data mining is enhanced by analytical tools which can be used to analyse every tweet to find who sees the tweet and what the outcome of their seeing it was. This data is important for future endeavours as it shows the segments most likely to interact with the tweets (Ward, 2016). Businesses that make good use of hashtags can insert themselves into popular searches and can connect to users on a more personal level. It is important for a business to know who their customers are and use hashtags in such a way that they can connect with these users and to be more visible (Window, 2016).

Twitter has proven to be an important and innovative organisation and has changed how customer service is conducted (Barnhart, 2018). Moreover, despite the problems that Twitter has faced in spam accounts, it continued to make a profit, as well as see an increase in daily usage (Carr &

McCracken, 2018). As such, Twitter will remain a competitor in the social networking scape, and an important factor in relationship marketing and communication with customers. The next section will look at Instagram, a company that belongs to Facebook.

2.3.3.3 Instagram

Instagram offers a way to share pictures of almost anything – from moments captured to events to product related content. The photographs can be instantly edited before being posted on a user's Instagram feed (Instagram, 2017a). Users can follow each other's Instagram account and post comments on any photos on-the-go with a cellular device, as Instagram has emphasised mobile use (Moreau, 2017). More than 100 million photos and videos are shared on Instagram every day, which showcases the potential influence of this social network (Aslam, 2018). It also caters to both private individuals and organisations and can be used for all kinds of reasons such as behind-the-scenes posts, reposts from employees, educational posts, influencer posts, motivational posts, user-generated content, and newsjacking (Collins, 2016). The 'why' in Instagram is simply stated as a 'picture is worth a thousand words'; and for brands who manage to garner a significant following of Instagram users or who make use of influencer marketing, a picture can be worth a pretty penny, too (Geyser, 2017).

Instagram was founded in 2010 by Mike Krieger and Kevin Systrom. It was popular from the very beginning and had 1 million users within 2 months of launching. In 2011, the 150 millionth photo was uploaded, and by 2012 they had become so popular that Facebook acquired it for one billion US dollars (Rakos, 2014; Woods, 2013). By September 2017, Instagram had 800 million active users, showing steep growth from 2013 (Statista, 2018b).

Instagram has become important in the business market as it has more than 1 million advertisers, it has a call to action rate of 75 per cent, 33 per cent of most viewed stories are posted by businesses, 60 per cent of people say they discover new products on Instagram, and the sound is on in 70 per cent of videos, which indicates that users are actively paying attention (Instagram, 2017b). It has become one of the most important social media sites but has also gone unused by many organisations. There are several reasons why it is important, among which is the fact that content can tell a story, which is visual and can be told to millions of people. It also offers an opportunity to engage and to garner feedback and insights (Hughes, 2017). More than half of Instagram's active users visit the site daily and 35 per cent check the site multiple times a day (Collins, 2016). Considering the high number of users and posts, the 35 per cent translates to remarkable opportunities for business. Moreover, through using influencers, businesses can reach large audiences at low costs (Gilbert, 2018). Instagram influencers have become such an

important part of social media marketing that the word Insta-famous was coined as those who garner enough followers become mini-celebrities (Hellenkamper, 2017).

As mobile media consumption rises, sites such as Instagram, which are geared towards mobile device usage, will only become more prominent and more important. It is thus crucial for marketers to ascertain whether Instagram is the right tool for their brand and to use it correctly and to its full potential (Rezvani, 2014). The next section focusses on Google Plus, which was meant to be Google's answer to Facebook.

2.3.3.4 Google Plus

Google Plus was Google's investment into social media, as a response to the success of other social media giants. Initially, Google Plus was 'invite only' in 2011, until it opened to the general public towards the end of 2011 (Dolan, 2014). The purpose of Google Plus was to be a social network similar to Facebook and Twitter while integrating Google products and services (Weston, 2017). Google Plus has features such as Circles, where one could personalise social circles around personal activities, and Hangouts, which were mainly video chat and instant messaging applications (Karch, 2018). Google Plus was born from earlier prototypes called Google Wave and Google Buzz, both of which failed to garner a large user base (Rouse, 2016).

Google Plus has not been considered a major success, even though it managed to garner millions of users in its first few months. Part of its failure to launch has been attributed to Google Plus simply being a duplication of Facebook, which offered little incentive for users to sign up or switch to it (Fiegerman, 2015). In 2015, Google Plus had approximately 300 million monthly active users, which made them one of the largest social networking sites in the world (Gallagher, 2015). This figure grew to 375 million monthly active users in 2016 (Statistics Brain, 2016b). However, figures for Google Plus users are more difficult to find as it is a part of the Google ecosystem. As such, those who wanted to post on YouTube had to have a Google Plus account (Constine, 2013). This changed in 2015, from where only a Google account was necessary to use Google's products (Welch, 2015). Nevertheless, towards the middle of 2017, Google Plus had 375 million active members (Roona, 2017).

Even though Google Plus did not become the social media giant that Google hoped it would be, it still has some importance in business. Firstly, Google Plus helps businesses rank higher in SEO (search engine optimisation), which means that organisations who do not use it are at a disadvantage. Also, content published on Google Plus is automatically ranked in Google search; thus, when a company publishes on their own website and on Google Plus, it is possible that their website won't show up, but Google Plus will. There are also resources which link into Google

Plus, such as Hangouts, Communities, YouTube, Search, Gmail, and Maps (Glusman, 2015). One of the most important factors of Plus is the fact that Google Maps uses Plus to find businesses (Bevan, 2014). Creative Guerrilla Marketing (CGM) verifies aforementioned by stating that Google Plus is an extension of Gmail, it is useful for building relationships, and it helps searchers to find a business when it's applicable (CGM, 2016). Lastly, 62 per cent of Plus users are business-to-business marketers, 87 per cent of the top 100 brands have a Google Plus account, and 50 per cent of them post actively (Smith, 2017b).

It might seem easier for brands to simply post on Facebook and Instagram due to their popularity, but Google Plus has shown that it still holds some importance in the market. It is the onus of different smartphone brands to ascertain whether Google Plus is right for them and their content. The next section will look at YouTube, a company owned by Google.

2.3.3.5 YouTube

YouTube is a medium used for sharing video content that a user uploads for others to watch. It is used by individuals as well as businesses and is considered one of the most popular video sites on the internet (Boswell, 2016). Video content marketing has become increasingly popular over the years, which has seen many brands focus a part of their marketing on this platform (Barnhart, 2017) which has led to YouTube becoming one of the largest depositories for videos on the internet (Flahive, 2017; Business Queensland, 2016).

YouTube was created by Hurley, Chen, and Karim to be a Flickr'esque type of video sharing site. Flickr is a sharing space for pictures, and YouTube was envisioned to become the most popular repository for videos (Moreau, 2017; Fitzpatrick, 2010). YouTube quickly grew and was bought by Google for 1.65 billion US dollars, at a time in which YouTube had upwards of 700 million views per week (Luckerson, 2016). By 2016, YouTube had 1.3 billion users, 300 hours of content uploaded every minute, and 5 billion views per day (Donchev, 2017). YouTube's user base grew from 1 billion in 2014 to 1.47 billion by 2017 and is predicted to grow to 1.58 billion in 2018 (Statista, 2018d).

YouTube is a crucial part of business and has a range of benefits that complement other communication channels. Some of these benefits include the ability to demonstrate products, create a community, show brand personality, leverage events and promotions, and solve customer problems (Business Queensland, 2017). Furthermore, it has been estimated that videos of products boost conversion rates by as much as 80 per cent.

YouTube has shown that it's possible to reach billions of users, however, it is up to any brand to research what will best suit their needs and to ascertain whether such a large audience is required (Barnhart, 2017). The next section will focus briefly on social media and business.

2.3.4   Social media and businesses

For many years, little was done to incentivise non-community members of social media to become active members of brand communities (Casalo *et al.*, 2010:357). In recent times, many brands have improved their social media marketing and have worked hard at keeping their brand communities active and engaged.

It has been postulated that power has shifted from business to individual because of the availability of information and the extent of information sharing. Moreover, as online communities show, blogs, vlogs, wikis, and other virtual communities have gained an enormous amount of traction over the years and have increased in importance and popularity (Xiang & Gretzel, 2009:179). Online communities have also grown in popularity and have become such an integral part of businesses that customer support services, marketing, sales, and product development depend on them (Afshar, 2014). However, for brands to attract members to their social media sites, they must focus on community identification; that is, the extent to which consumers form a relationship with the community and its members (Casalo *et al.*, 2010:357). In forming these relationships, social media can be a powerful tool for organisations to interact with customers and to focus on building those relationships. This is crucial as it has been shown that the dot com bubble of the 1990s was partly caused by focussing on acquiring more customers instead of providing good service and building relationships with existing customers (Keating *et al.*, 2003:217). Further important aspects of social media are defining marketing objectives, evaluating opportunities, selecting the right social media platforms, and using the analytical capabilities that are offered (Kumar & Mirchanandani, 2012:55).

Social media has become such a cornerstone that it can be said of organisations which are not on social networks, that they are not part of cyberspace (Kaplan & Haenlein, 2010:67). This is because Web 2.0 and social media have changed traditional advertising (which was focussed on one-way communication and was expensive to use) into a conversation; a cost-effective one at that (Stelzner, 2014). This two-way communication is crucial to the growth and sustainability of businesses and includes factors such as engaging effectively, efficiently and politely and being empathetic to the needs of customers (Bennet, 2018). The result of these would be improving customer loyalty, putting control of the conversation in the hands of organisations, and improving productivity by pre-empting customer questions and complaints (Schiff, 2015).

There are numerous reasons why organisations are capitalising on the use of social media in marketing, such as overhead cost reduction, increased social interaction, and ease of reaching almost any target market. However, there are also downfalls to be aware of, such as time insensitivity, trademark and copyright issues, privacy and security concerns, negative user-generated content, and negative feedback, which can harm the business if not properly addressed (Kaur & Nanak, 2016:36). The next section looks at social media marketing, to illumine how organisations conduct themselves in the social media environment.

2.3.4.1 Social media marketing

Social media marketing is the use of social media channels to promote an organisation's products and falls under the online and digital marketing umbrella (Kaur & Nanak, 2016:34). In reaching potential customers, there are two methods of advertising to use, namely, organic social content and paid social content. Organic content is content posted by an organisation, then shared by individuals, or liked enough times by the public that it ranks higher in news feeds. Paid content, on the other hand, is when an organisation pays a platform (Facebook, Twitter, etc.) to rank their content higher in a news feed (Gurd, 2016).

Paid content advertising has risen greatly since 2010, It has surpassed newspaper advertising and is poised to overtake television advertising spending as well. It is estimated that online advertising spending will reach 113 billion US dollars by 2020 (Newberry, 2016). The steep rise in advertising is both a cause and an effect, as more paid content has caused an overflow of information which caused social media sites to change their algorithms; this resulted in less organic content. Thus, organisations must now spend money on paid advertising and paid content for their content to be seen (Bernazzani, 2017).

Content is what social media pages are all about; organising that content well is of utmost importance for a business (Lua, 2017), as it is what retains visitors, helps the brand to be seen, establishes quality, and enhances engagement with consumers (Collins, 2014). Social media content conveys a story through the creation of an image for a brand (Carter, 2017). The content can be educational, inspirational, interactive, promotional, or newsworthy (Koshy, 2017). It is important to listen to current and potential customers; focus on specific segments and strategies; post high-quality content; post sharable content; connect with those who are connected and have influence; add value to content; and acknowledge those who try to communicate with the brand (Gunelius, 2017). At the heart of content is the emotional appeal which would lead individuals to form an opinion and an emotional connection (Melin, 2014). There are several different emotional appeals which are used, of which the humour appeal has been found to be the most frequented in relationship marketing (Cohen, 2014:26). However, mere humour will not suffice to draw in

supporters. For organisations to be successful on social media, and for content to spread, there are steps to be followed which include monitoring conversations on social media platforms and identifying influential individuals who can spread a message (Fastenau, 2018). Furthermore, identifying and recruiting potential influencers who have interests relevant to the campaign is a beneficial strategy in the social media marketing sphere.

Social media has become a mobile phenomenon where individuals consume social media content on the go, which means individuals, including influencers, can potentially be reached at any given time (Molla, 2017). The increase of content intake online is greatly due to the move towards mobile living. Mobile devices such as smartphones and tablets have enabled the consumption and creation of content on the go by using services such as Twitter, YouTube, Facebook, and Blogger (Kaur & Nanak, 2016:34). Some forms of content are preferable to others; infographics, for example, are shared more frequently as it consists of pictures and text. Interactive content is also important as it lets users engage with the brand instead of merely being a viewer. Interactive content comes in the form of quizzes, for example, which is entertaining to users but also gives insight into users' behaviour (Patel, 2015). Other types of content which are important are user-generated content, where a brand encourages users to post self-made content or have content they have adapted (Vandermeer, 2017). Next, testimonials and reviews are a way for others to see the benefits of using a brand, which can build trust (SF Media, 2017). Lastly, guides are a way to encourage inexperienced users to find the social networking site and to access content made by the brand. Guides are easy to follow details of how to use or do something, regarding a product of the brand (O'Sullivan, 2017).

When it comes to posting content, brands should be aware of the different social media sites as well as the lifetime of a post on each of these sites. The lifespan of a post is seen as the length of time a post remains relevant or attracts attention. Figure 2-3 shows the average lifespan of a post across multiple social networking sites. This information is crucial for a brand to know when to post and where to post content (Milstein, 2017; Vivial, 2017).
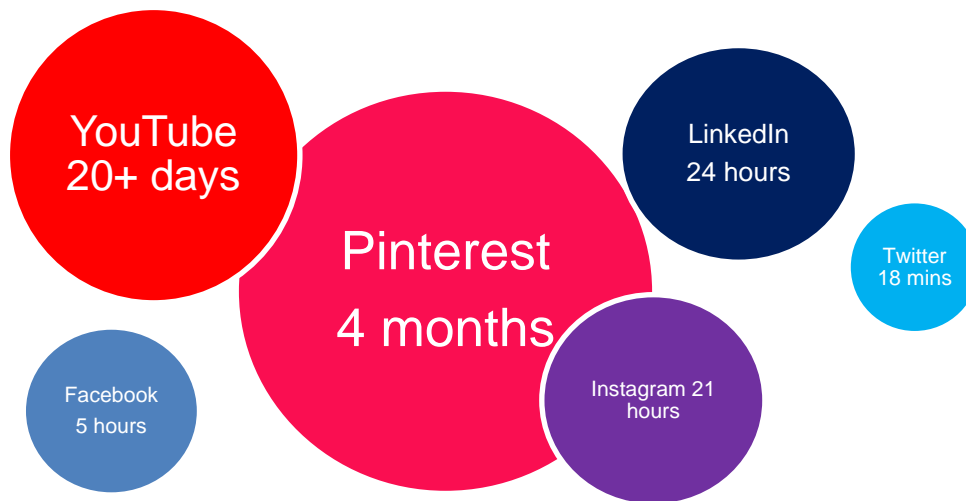
Figure 2-3: **Lifespan of a post on various social media platforms (Vivial, 2017)**

Figure 2-3 shows that the lifetime of a post is longest on Pinterest, which means that after four months, individuals are still likely to see and interact with the post. YouTube gives a post 20 days or more, depending on the video. LinkedIn and Instagram posts have short lifespans in comparison to the above, at 24 hours and 21 hours, respectively. Facebook's lifespan for a post is a mere five hours, and Twitter is only 18 minutes, which is the shortest of all mediums. Consequently, organisations should be careful about what they post and where, as it will impact on their marketing campaign.

Another crucial aspect to consider in the internet and social media environment is something called 'game theory', which states that consumers tend to either cooperate or defect. It is therefore important to find the correct balance in the marketing which is conducted and to maintain a level of value and attractiveness so that individuals want to be associated consistently with a brand (Gilbert, 2017). Importantly, likes and subscribers should not be overestimated as there seems to be a difference regarding causation and correlation. That is, there is a correlation between subscribers and increased purchases; however, it has been found that the cause is that those who do tend to like and subscribe, were users of the product or service beforehand, hence their following of the brand on social media (John *et al.*, 2017). It is therefore important for brands to not overspend on gaining new likes, as likes in and of themselves, do not increase revenue.

An important part of posting content and sharing content is the data which can be gathered from users because of such actions (Multu-Bayraktar, 2016:xviii). The next section will focus on the data aspect of social media to investigate what researchers can gain from users on social networking sites.

2.3.4.2 Social media data

Data on social media has reached unprecedented heights and can give brands insight into many different aspects regarding their followers. This is useful for brands as organisations can use this data optimally by sifting through the plethora of data and extract the relevant points to personalise services towards their customers (Stevens, 2017). Data which is gathered can be utilised for the following purposes: analyse the types of followers and the reach of posts and content, identify influencers, compare platforms, save time, and increase return on investment (Force, 2016).

Social media contains a multitude of data, which is constantly updated. This data mirrors how people interact with each other and with brands and has been dubbed 'big data', which is crucial in analysing markets and consumer behaviour (Van Rijmenam, 2017). Big data describes large volumes of data which are used to improve strategic decision making within the business (SAS, 2017).

Facebook, the world's largest social media network, has a data analysis method called Facebook Insights (Audience Insights), which is used to gauge demographics, find out what people like, and learn about different lifestyles (Facebook, 2017). The other social media networks (Instagram, Twitter, Google Plus, and YouTube) also have their own set of analytical tools which are used to assess followers, videos, and posts, among other things. These are the main analytical tools used by each of the aforementioned social media networks, as seen in Table 2-3, which shows the social media site, the analytical tool, as well as the function of the tool.

Table 2-3: Data analytics (Sproutsocial, 2017, Twitonomy, 2017, Twitter, 2017a, Social Blade, 2017; YouTube Analytics, 2017, Jeffalytics, 2017, Keyhole, 2016; Jostes, 2015)

Social media site	Analytical tool	Functions
Facebook	Facebook Insights	Page likes, actions, differentiating between paid and organic, post, reach, impressions, engagement, demographics
	Keyhole	Optimisations strategies, fan growth, engagement by post, best times to post, the ideal length of updates
	Buffer	Post metrics, engagement, identification of top post, ideal posting time
Google Plus	Jeffalytics	Circle analysis, engagement with posts, finding ripples.
	Google Plus Dashboard	Insights into visibility, engagement, audience, Google Analytics
Instagram	Instagram Insights	Find out about followers, when they are online, and what are the top posts, promotions
	Socialbakers	Most popular Instagram photos, filters, hashtags and interactions, most liked posts, most commented posts
	Simply Measured	Report on engagement, likes, comments, top filters
Twitter	Twitter Analytics	Analyse tweets, tweet activity, audience insight, quickly promote tweets, measure Twitter campaigns
	Twitonomy	Detailed visual analytics, filter insights, backup and export tweets, monitor interactions, search analytics, monitor tweets, actionable insights, track followers and follower growth
	Sproutsocial	Identify best Twitter content, understand Twitter behaviour, benchmark performance, better understand audience, advanced reports for monitoring, trends
YouTube	Social Blade	Grade, videos, subscribers, views
	YouTube Analytics	Time reports, watch time, audience retention, demographics, playback locations, traffic sources, device used, interaction reports, subscribers, likes and dislikes, comments

Social media analysis has changed the landscape of digital marketing and has produced campaigns with high returns on investment. There are numerous advantages for brands that use social media optimally (Litsa, 2017). Some of the data collected by brands on social media were

email addresses, names, phone numbers, locations, mailing addresses, age, and country information (Kilroy, 2017), the likes of which are used by organisations to target specific individuals with advertisements of products or services that might appeal to them (Wagner, 2018). Companies such as Facebook track user data far beyond what most individuals are aware of. They track age, employer, relationships, locations, users on other sites, and even biometric facial data in certain instances (Singer, 2018). The information also includes all the places a person has been to, as well as all searched and deleted data, along with app use and YouTube videos watched (Curran, 2018). In 2018 it became known that Facebook provided access to user data to 61 organisations, which could have used the data in a myriad of ways (Imbert, 2018). This data is then analysed and used to create high quality, high impact campaigns to better target users (Adams & Mills, 2018). Smartphone brands are also using these tools and data to gain a competitive advantage. Teams of analysts assess what people are saying about a brand on blogs, social media, and forums. Furthermore, they look at trend sentiment, purchase intentions, demographic data, and interests and influences. They also analyse trends in social conversations (these can be measured with ForSight and HelioSight) (Macaulay, 2017).

Data and information have become large industries in themselves as the use of data have increased exponentially over the years. With large sites such as Facebook, Google Search, YouTube, Instagram, and Twitter, there is an opportunity for data gathering on an unprecedented scale, which was not possible in the past. Regardless, how data is used remains a contentious issue, which will be debated and restructured repeatedly. For now, organisations can still use numerous data analytical tools (Table 2-3) to delve into the minds of consumers, to try and gain an advantage in an increasingly competitive global theatre. The next section will briefly discuss privacy on social media to illumine the current situation from the perspective of those who are the product.

2.3.4.3 Social media privacy

Social media has changed the way in which customers communicate with businesses. They now demand speed, convenience, transparency, and a level of service as never before (Causon, 2015). This social media phenomenon is on the increase; as many as 67 per cent of the customers from certain brands have engaged with those brands on social media (Gregory, 2018). Therefore, social media has become a channel for consumers to engage, compliment, complain, and discuss organisations whether organisations approve or make use of social networks or not (Greene, 2016).

While social media has been described as a fresh new way of socialising and conducting marketing, there has also been a darker side to this phenomenon. One such negative factor has

come in the form of surveillance and breaches in the privacy of consumers (Boyd, 2015:2). Mining data from those who did not grant such permission paints a harrowing picture. Some even go as far as to call for much tougher regulation on these large social media companies (McNamee & Parakilas, 2018).

Many of the Generation Y cohort users have stated that they use security settings to limit the exposure of their personal information. However, the majority of those surveyed stated that they have more than 300 friends on Facebook and do not show much concern about third-party access. This shows that the level of trust is still high, and still leaves users vulnerable (Madden *et al.*, 2013:2); however, change does seem to be coming as more individuals seem to be concerned about privacy than before (Beck, 2018).

Hackers try to access web accounts which lead to more danger for the user compared to the social media organisations. This way they get access to personal information, current locations, and can impersonate the person whose account they hacked (Cohen, 2016). This can be problematic as the Generation Y cohort is known to post personal photos, haphazardly disclose information such as their school's name, their place of living, their email address, and their real name. Furthermore, they post their interests, birth date, and relationship status (Arnold, 2018; Madden *et al.*, 2013:3). This is also troublesome as in social media, the user is not the customer, but the product (McLane, 2013), at a time when there are scandals in the social media domain where organisations do not seem to act in the best interest of those who use their platforms. An example of this is Facebook, where another company, Cambridge Analytica was given access to numerous accounts, which they then exploited and used for political purposes (Cowburn, 2018). This is worrisome, due to so much information being shared.

The user is not entirely helpless however, and there are certain ways for the user to protect themselves, such as using strong passwords, protecting and restricting personal details through security settings, making use of a good anti-virus and anti-spyware programs, keeping applications updated, and knowing that personal information posted online is no longer private; thus, the individual should be careful of what they post (Cohen, 2016). This is shown again where a portion of the Generation Y cohort which was surveyed, stated that their biggest perceived threat in terms of privacy was from parents, teachers, siblings, and peers. They did not show as much uneasiness over the government or other organisations invading their privacy (Marwick & Boyd, 2014:1056). This can be considered ignorance, as it has been shown that social networking sites gather data from users such as their location, interests, and photos, and store these in their database. Some social networks even have user agreements which state that the social media site owns their users' data and photos (Paliszkiewlcz & Koohang, 2016:192; Ghose & Bandana, 2014).

Even though some have eschewed the Generation Y cohort for their perceived lack of privacy and discernment, they consider themselves as privacy-conscious. The Generation Y cohort wants to be part of the public eye without always being in public; social media makes this possible. However, many of them want to share their lives and opinions with those they know and who are close to them, and not necessarily with the world. It has been suggested that this attitude towards privacy is the Generation Y cohort's attempt in trying to find the balance between fitting in, sharing, and being private (Marwick & Boyd, 2014:1052). The next section looks at future trends in the social media marketing sphere.

2.3.5 Future trends

Social media is like an ever-changing landscape, with new variations replacing the old with every passing year. Around 2015, there were several new sites, which were set to be the next big thing: Unmetric, Kenshoo Social, Bubbly, Heard, Frilp, WeChat, among others (Pozin, 2014). This implies that there is a demand for innovation in social media.

The most notable trend on social media is regarding video, as users want a more enthralling experience of those they follow. Furthermore, there will be a rise in organisations that tend to customers online instead of through traditional methods. Another change will be the way advertising is conducted online, as organisations try to streamline their social media focus (DeMers, 2016b).

As people tend to make use of only a few applications per week, regardless of intensity, a problem arises for operating system developers such as Google's Android and Apple's iOS. Google, for one, is tackling this problem through its instant apps feature, which will see users being able to use some functionality of apps without downloading them in full. This is an effort to combat the effort of installing applications (Rubin, 2017). Other shifts in social media can be seen in acquisitions and consolidations. This means that larger networks such as Facebook, Google, and Twitter will continue to acquire other growing social networks to bolster their own growth and appeal. It can be expected that different social media networks will continue to add features that are inherent to others. For example, YouTube is attempting to create a community feature where people can post text and pictures. Facebook, on the other hand, is investing more in video and is working on changing their messenger app to have messages disappear, much like Snapchat (Stelzner, 2018; IOL, 2018; Read, 2016).

Other trends are messengers, such as WhatsApp and Facebook Messenger, overtaking the e-mail communication system and becoming the most used communication method. This is rapidly changing how businesses operate and will continue to operate, as advertising and tracking rules

develop along with these changes. For instance, an innovation such as 'chatbots', which organisations can use to communicate with customers via messengers, easily becomes incorporated in daily business activities (Kemp, 2016). A chatbot is a program which simulates human conversation through text by utilising narrow artificial intelligence (NAI) that can be inserted into messenger applications (Investopedia, 2017a). It has been argued that chatbots might take the place of websites and many smartphone applications as they are much quicker to use and don't need to be downloaded onto a phone. Another important aspect regarding chatbots is the fact that they will be much easier to interact with. Most websites or information platforms are set in a structured way, where the individual must search for the information they require; whereas, with chatbots, individuals will simply ask the chatbot a question, and will receive an instant response (Schlicht, 2016). Chatbots will be able to speak to individuals, give answers to all types of questions. It will also decrease the time in-between replies from the service provider and will decrease labour costs due to the reduced need for customer communications staff (Jones, 2017). More than 30,000 chatbots have been developed for Facebook Messenger, which is an effort to combat the fatigue of application installs. However, even though some view chatbots as the future, they are not yet a replacement for full applications (Rubin, 2017).

The future of social media is difficult to predict with precision; however, the trends show that artificial intelligence, innovative apps, and mobile-oriented socialising will lead the way (Andrews, 2018). This is evident as smartphones become increasingly powerful, drawing the world away from computer desktops and pushing towards a mobile-centric era (Enge, 2018). The next section will investigate smartphones by assessing the biggest brands in South Africa through a short introduction, history, devices on the market, and social media marketing strategy.

2.4   SMARTPHONE BRANDS

The smartphone has been heralded as a new dimension in mobility, which has changed and personalised social interaction forever (Philips, 2014). A formal definition of the smartphone is "a cellular telephone with an integrated computer and other features not originally associated with telephones, such as an operating system, web browsing and the ability to run software applications" (Rouse, 2018). However, many phones exist, each equipped with different capabilities. Therefore, in this context, the smartphone is described as a programmable mobile phone which can send messages, download applications, and utilises WiFi and GPS (Cassavoy, 2018).

The word smartphone was coined in 1997 by Ericsson, even though IBM released a smartphone in 1993, which had a touchscreen, calculator, and email capability, among other things (Parrish, 2012). Since then, several organisations have created operating systems (OS) for smartphones,

among which the most popular are Alphabet (formerly known as Google), Apple, and Microsoft (Ting *et al.*, 2011:193-194). However, Alphabet's Android OS and Apple's iOS are by far the most popular (Hill, 2018).

Smartphones have become more popular and their sales have had tremendous growth in the last few years (Farah, 2018). It has brought mobile computing to the masses, which has enabled the growth of the social media phenomenon. This has had a significant effect on marketing strategy and has changed the way many businesses conduct themselves (Saravanakumar & Lakshmi, 2012:4445). Relationship marketing focusses on engagement, which is the behavioural action towards a brand beyond merely purchasing (Ashley, 2010:750). In smartphone brand context, this would include delving into a social media relationship with brands.

Smartphones have taken centre stage in the lives of many people and now serve as a connecting gateway to the world at large, an efficiency booster, a functional tool, and a vessel of entertainment (Jesensky, 2013). Furthermore, this tool has transcended all kinds of barriers such as age, wealth, and geography, and reached 1.57 billion smartphone users in 2014 which is expected to rise to 2.87 billion by 2020 (Statista, 2018e). This immense growth has been fuelled by the near perfection of the supply chain located in Guangzhou and Shenzhen, China, where 70 per cent of smartphones are now produced. Simplifications of the supply chain coupled with a drastic reduction in the price of sourcing materials have led to a sharp increase in competition in the smartphone market (Gandhi, 2016). It has been suggested that smartphone sales might slow down as the market reaches maturity; however, there are still large markets across the world (O'Donnel, 2018). Despite there being unsaturated markets, the increased competition and impending maturity for many markets mean that smartphone manufacturers have had to find new ways to differentiate themselves. Here, social media plays an important role as it has been shown to be able to 'make or break' a brand (Ahmad, 2017). The role of social media in this regard is to amplify the online user experience (Gingiss, 2017). User experiences can be heightened also through building trust relationships, providing quality products and services, and offering creative content. Good news tends to travel faster on social media than bad, which means that brands should focus on providing the best experience they can (Pittard, 2013). Positive experiences are easier to provide when there is a relationship that has been built. When the brand has provided value that individuals can see themselves using in the long term, they will gladly pay and tell others about it (Gibbons, 2017). Several brands have managed to capture the imagination of users. The next section will briefly examine several of those brands.

2.4.1   Most popular smartphone brands

There have been many smartphone companies over the past few decades, between which popularity has bounced. At the end of 2017, these were the largest smartphone companies in the world (Gadgets Now, 2017):

- Samsung

- Apple

- Huawei

- Oppo

- Xiaomi

- LG

- ZTE

- Lenovo and Motorola

- Alcatel

However, this study focussed on the most prominent smartphone brands in South Africa, namely (Mybroadband, 2017):

- Samsung

- Apple

- BlackBerry

- Nokia

- LG

- Sony

- Xiaomi

- Huawei

These smartphone brands will be discussed in detail next. Xiaomi was added due to its rising popularity across the globe (Saiidi, 2018), and its recent entry into the South African market, through the Core Group (McLeod, 2016).

2.4.1.1 Samsung

Samsung was founded in 1938, by Lee Byung-Chull. It began as a grocery store which traded and exported goods that were produced in and around the city. Samsung's foray into telecommunication started in 1980, in building telephone switchboards (Burris, 2017). Samsung's first cell phone, which was made for in-car use, was created in 1985. The phone was marred by quality issues, which were only remedied around 1988 (Phone Arena, 2014).

Samsung's first venture into smartphones was the Samsung SPH-I300, launched in 2001, which was a palm-powered smartphone with a large touch screen. Next, Samsung released the BlackJack in 2006 and the Instinct in 2008. However, the Omnia (SCH-i910) is considered the first true ancestor of the grander design and functionality which Samsung would later reach (Segan, 2013). After the release of Google's Android in 2008, many smartphone makers decided to use it as their operating system. Samsung would unveil their first Android phone in 2009, named the Samsung Galaxy, which was a touchscreen, plastic phone, which did not make any effort to stand out from competition (Velasco, 2016). Some of the most notable phones from Samsung were the Galaxy i7500 and the Galaxy S, which started Samsung's foray into the mainstream smartphone market. The Galaxy Note was their first attempt at a large phone, also known as a phablet. Next, the Galaxy J1 was Samsung's less expensive alternative, which was less confusing in moniker than many of their other variants (Balboa, 2017; Johnson, 2017; Devan, 2017; GSM Arena, 2016; GSM Arena, 2015a; GSM Arena, 2015b). The next graph shows the Samsung smartphone shipments from the year 2010 to 2017.
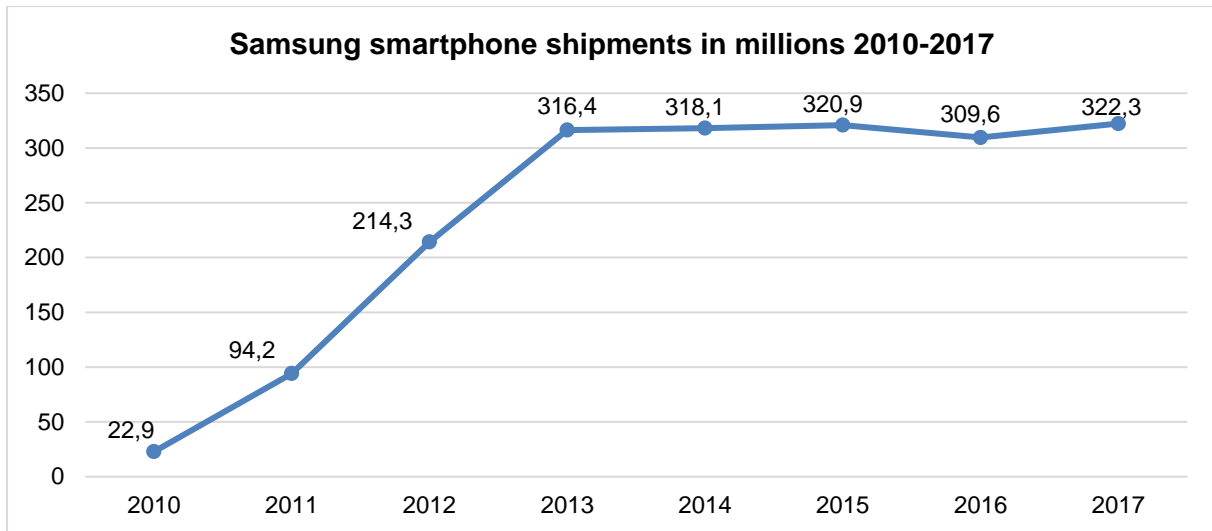
Figure 2-4:   Samsung smartphone shipments (Statista, 2017a)

As seen in Figure 2-4, Samsung's smartphone sales grew rapidly from 2010 to 2013, from where sales growth slowed down considerably. Samsung's smartphone sales dropped in 2016 from 320.9 million to 309.6 million but recovered in 2017. A possible explanation for Samsung's reduced sales in 2016 is the Samsung Galaxy Note 7, which had a flaw in its battery construction. This might have hurt consumer confidence in the brand (Moynihan, 2017). However, their sales recovered in 2017, which could be attributed to their handling of the Samsung Galaxy Note 7 glitch. Samsung held recalls for the phone, warned customers of the battery flaw, and as a precautionary measure, disabled phones which were not returned. Samsung's quick response and communication on social media, which showed their acceptance of failure, led to a healthy recovery for the brand (Moorhead, 2016). Samsung makes use of Facebook, Twitter, and YouTube, among other social media. Samsung's proficient use of social media and their devout investment in social media coverage and content have led them to become one of the most sought-after smartphone brands in the world.

Samsung has become one of the largest smartphone brands across the globe, and despite sales growth slowing to a near halt, their sheer number of shipments ranks them as the most popular brand in the world. Next, a brand that avoids social media almost completely but still has a high rate of success – Apple.

2.4.1.2 Apple

Apple began with the partnership between Steve Wozniak and Steve Jobs in the 1970s. Their partnership and business would have tumultuous years but would eventually see Apple entering the cell phone industry through its innovative smartphone, the Apple iPhone (Rawlinson, 2017; Haselton, 2017).

The first iPhone, released in 2007, was not the first smartphone; however, it set a new trend for smartphones, which was warmly received by consumers (Mora, 2017). With the release of the App Store, the smartphone industry was changed forever (Molla, 2017). Despite Apple not inventing the smartphone, it was the first smartphone manufacturer to bring smartphones into view of the average consumer, with metal and glass design, and full touchscreen. This made Apple into a well sought-after product and would be a moment of convergence for their technology, which would make them stand out among the competition (Parrish, 2015). Apple has had a steady release of phones, with at least one new model every year since 2007. From 2013, their one phone release per year increased to two models per year, in bringing in a less expensive model, the 5c, to the market. In 2014, the cheaper model was abandoned in favour of bringing out two sizes of the same model. Their release changed again in 2016, where an SE model, essentially the less expensive model, was introduced. In 2017, the iPhone X was released; which was more expensive than the iPhone 8 and 8 Plus, but featured advanced technologies (Haslam, 2017; Haselton, 2017; Leswing, 2017; Parker, 2017). The figure below shows Apple's smartphone shipments between 2007 and 2017.

Apple smartphone shipments in millions 2007-2017
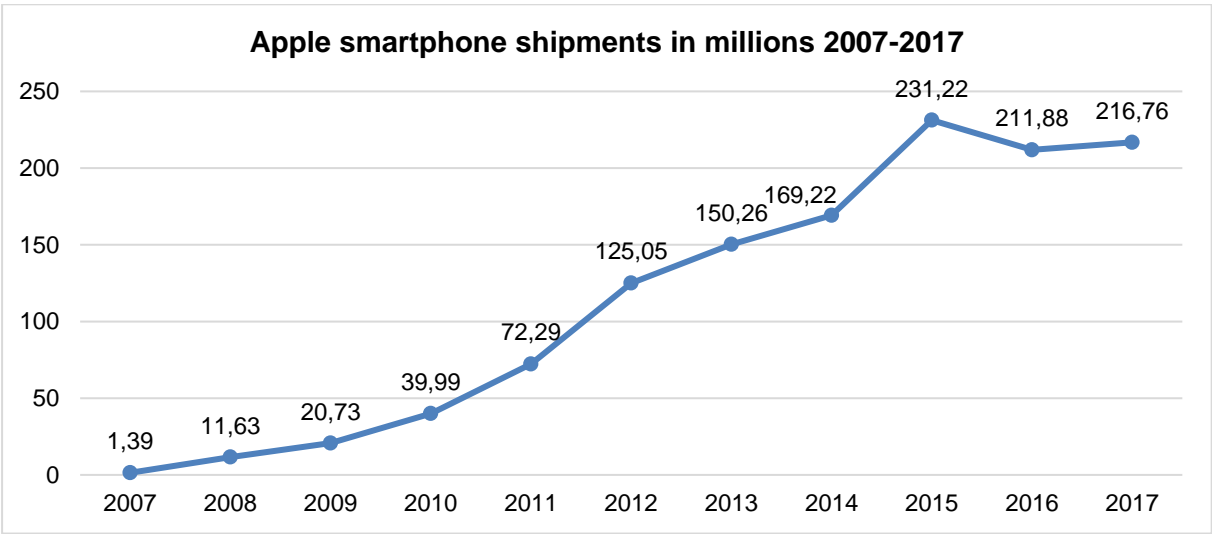
Figure 2-5:   Apple smartphone shipments (Statista, 2017b)

As Figure 2-5 shows, smartphone sales for Apple grew steadily from 2007 until the end of 2015. In 2015, shipments peaked with the release of the iPhone 6s and 6s Plus. The following year saw a remarkable drop in sales, which recovered slightly in 2017. This might suggest that Apple had achieved satiation in the market for its products. If so, Apple would have to up its innovation in order to convince consumers to adopt their brand. Apple's social media strategy varies greatly from that of Samsung in that they have almost no social media presence. Reasons for this have been suggested as Apple letting consumers do most of the talking, which shows confidence in the quality of their products. Furthermore, Apple is renowned for its customer service and

customer loyalty engagement; these are a few reasons that they are considered one of the most valuable brands in the world (Fawzy, 2015). Despite this, not even Apple could ignore the importance of a social media presence for too long. Apple's first social media campaign was launched on Tumblr, which is much smaller than Facebook and Twitter, which might be a shift in its no social media policy.

Apple is one of the largest companies in the world, partly due to its success with the iPhone range. They have managed to inspire confidence, trust, and loyalty that have been difficult to mimic by other brands. Their lack of social media usage has been overcome by good products and good service, which has inspired its consumers to praise and promote the brand. Whether this trend can continue is difficult to predict. However, with the increasing competition in the smartphone sphere, even Apple might be forced to partake in social media marketing on a more active basis. Next, this study will investigate the rise of BlackBerry, which had once been one of the most coveted smartphones, especially in South Africa (Mirani, 2014).

2.4.1.3 BlackBerry

BlackBerry started as Research in Motion (RIM), which was founded in 1985 by Mike Lazaridis and Douglas Fregin. Their initial business core, alongside Ericsson, focussed on developing a two-way paging system and a wireless email network (The Telegraph, 2015).

BlackBerry's first smartphone came in the form of the BlackBerry 5810, in 2002. This phone did not have an integrated microphone though, which explains that some consider the first true BlackBerry smartphone to be the BlackBerry 7230 – only released in 2003 (Sagan, 2013). BlackBerry (RIM), has more than a decade of experience in the smartphone industry. However, their smartphones naming scheme seemed more randomised than that of Samsung and Apple, which made it difficult for the average user to know which phone models were new (The Telegraph, 2015). As can be seen from its sales figures in the graph below, BlackBerry has faced tumultuous years.

BlackBerry smartphone shipments in millions 2006-2016
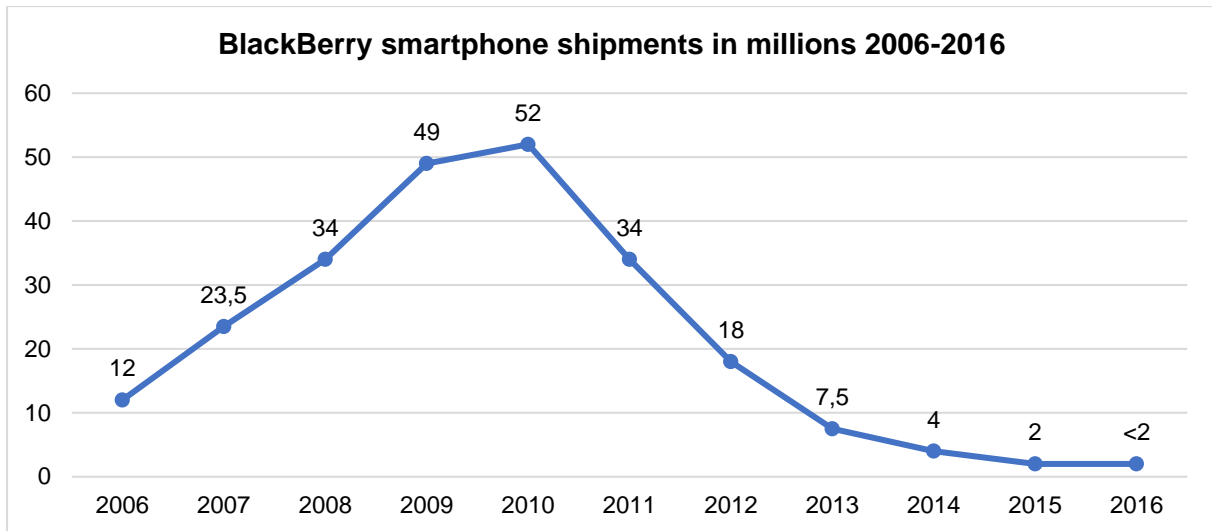
Figure 2-6: **BlackBerry smartphone shipments (Frommer, 2017)**

As can be seen from BlackBerry's sales from 2006 to 2016, their smartphone sales reached 52 million in 2010, from a start of 12 million in 2006. This climb was the height of their market share, which slumped down to less than 2 per cent by the end of 2016 (Price, 2017). BlackBerry's marketing and social media strategies have never been coherent and have differed from country to country. To make matters worse, in 2012 with refreshed marketing efforts for their brand relaunch, their products were substandard. This would be the beginning of the end of BlackBerry, as their sales continued to spiral downwards. Furthermore, BlackBerry's refusal to switch to full touch screen, and their reliance on Adobe Flash, saw Apple and Samsung surpass them in sales (Savov, 2016).

BlackBerry is not the only device manufacturer which rose to popularity, only to see themselves practically removed from the market. The next section will investigate Nokia's beginnings, their most important smartphone offerings, and their social media strategy.

2.4.1.4 Nokia

Nokia began as a wood pulp mill in 1865, founded by Fredrik Idestam. Following successes, it became a conglomerate in 1960; and in 1982, it introduced the first fully digital local telephone exchange in Europe (Nokia, 2017). In 1984, Nokia acquired Salora Telecommunications and released the Mobira Talkman, one of the first transportable phones. This gave way to the Mobira Cityman 900, which was more portable than its predecessor. However, innovation stalled, and they would only launch their first touchscreen smartphone in 2008, based on the failing Symbian operating system (Himanshu, 2015).

Nokia had, by 1998, established itself as a global leader with a greater turnover than any of its competition. Nokia had been able to gauge the market and deliver successfully. By 2009, Nokia failed to meet the threat that iPhone and the Android phones were posing. This led to Nokia's first quarterly loss in more than a decade (Satpathy, 2014). Nokia had a clear lead in the smartphone arena, by being one of the first organisations to manufacture one (McCarthy, 2011). However, as can be seen from their sales figures in Figure 2-7, their lead did not translate into sustainability.

Nokia smartphone shipments in millions 2007-2013

A line chart showing Nokia smartphone shipments (in millions) from 2007 to 2013: 2007 = 60,66; 2008 = 60,92; 2009 = 67,8; 2010 = 100,1; 2011 = 77,3; 2012 = 35; 2013 = 22,3.
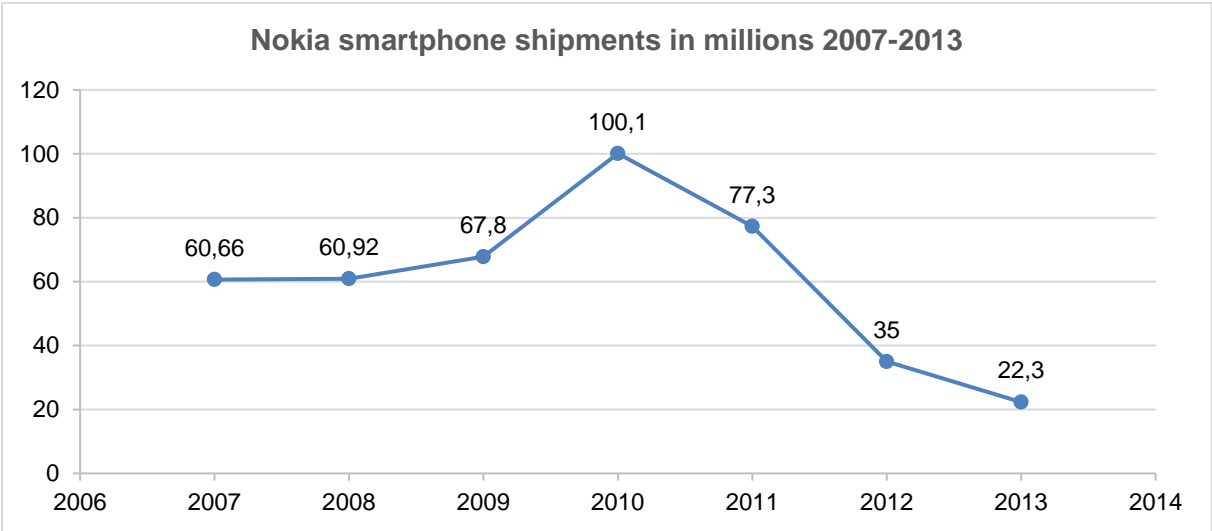
Figure 2-7:   Nokia smartphone shipments (Statista, 2014a)

Nokia's smartphone shipments peaked in 2010 where they exceeded 100 million. However, from there, their sales decreased drastically. This was, in part, due to the ageing operating system (Symbian) used by them, instead of the much more refined Android (Griffith, 2011). This led to continuous declines until 2013, when Microsoft began their acquisition of Nokia at the end of 2013. As such, no smartphone sales were available for Nokia during that transition period, and Nokia's new company, HDR, was not forthcoming regarding 2016 sales figures (Spence, 2017a). However, their sales for 2017 are said to be around 10 million units (Spence, 2017b). Nokia's relationship with social media has never been significantly successful, which they proved in 2014 with a campaign to tease an Android-based tablet. Instead of creating interest in the tablet, it showed that very few people still cared much about Nokia's brand. Nokia had made the mistake of never taking their social media strategy seriously and expecting sudden 'buzz' to surround their teaser (De Vivo, 2014). Ultimately, Nokia overestimated their brand power which led to several marketing blunders on their part; for example, Nokia did not engage enough with their consumers on social media and simply expected to go viral (Gerber, 2014). Microsoft acquired Nokia in 2013, as mentioned before, and proceeded to sell it in 2016 to HMD Global (Kharpal, 2016). From there Nokia's social media strategy became sounder, and they started to interact more with customers. Furthermore, they released a rehash of their popular 3310 phone (Peckham, 2017), and have

had a more relevant overall strategy, which has led to a significant increase in social media presence. Matching the quality of their phones to their social media strategy has seen their phones climbing the popularity ladder once again (Yordan, 2017; Young, 2017; Phelan, 2017).

Nokia had an established market and many years of experience in the mobile industry; however, this did not prevent the company from nearly failing. Nokia has turned around its sales, but its past can act as a cautionary tale for many other smartphone brands. The next company to be investigated is LG: a struggling smartphone brand, which has never reached the heights they envisioned.

2.4.1.5 LG

LG was established in 1958 as a chemical and electronics industry, known as Lucky-Goldstar, taking on the abbreviation LG in 1995. By 2005, LG was one of the top 100 global brands and saw remarkable brand growth (CH, 2014). LG manufactured phones before 2006; however, the LG Prada with its capacitive touch screen was one of LG's earliest forays into the mobile market (GSM Arena, 2018a).

LG's first serious take on the smartphone was the LG-GW620, which was launched in 2009 (Ganapati, 2009). LG's most influential phones had to play catch up in the smartphone arena, with their Android phones being their first line to join in the competitive market. Furthermore, LG only released its flagship able to compete with Samsung in 2013 (Pierce, 2013). The figure below shows LG's shipments in millions from 2012 to 2016.
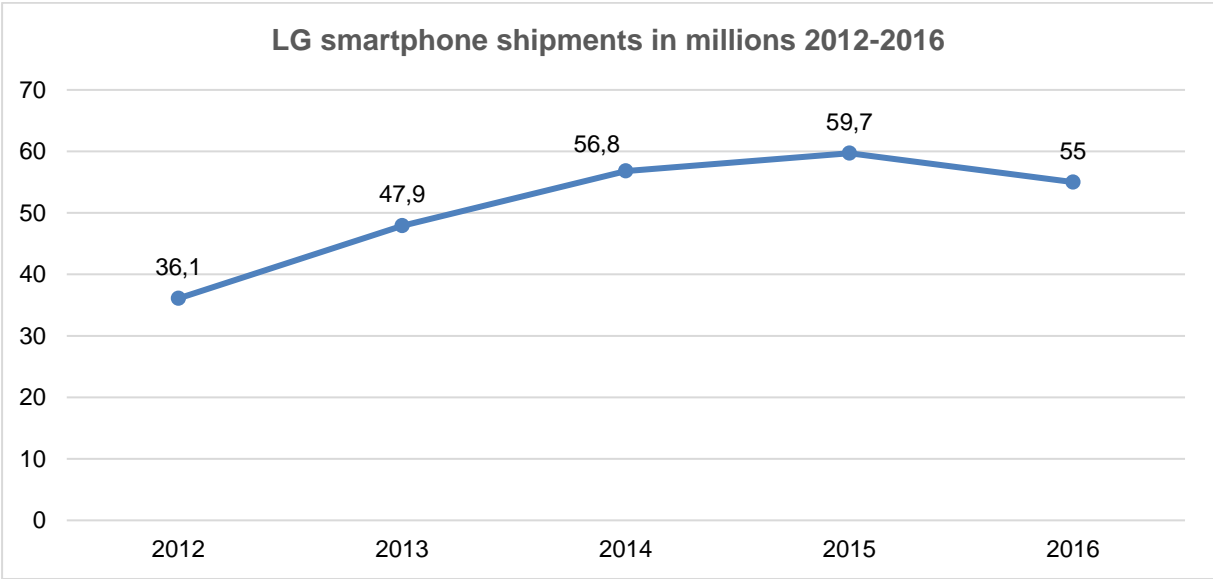
Figure 2-8:   LG smartphone shipments (Russell, 2017; Kharpal, 2016; Statista, 2016b; Herrick, 2014; Martonik, 2013; Ganguly, 2012)

As seen in Figure 2-8, LG's sales have been favourable since 2012, peaking at 59.7 million in 2015, but then declining in 2016 towards 55 million. This is comparable to Samsung and Apple's decline in sales in 2016; however, as both of those companies had much higher sales, it might be cause for concern for LG, especially as the trend continued. In 2009, LG made the active decision to use social media as a focal point in its brand strategy. Blogging and social media would be used to interact, gauge opinions, and showcase LG products (Econsultancy, 2009). LG has had different drives, such as competitions, innovative advertisements, and photo contests (Cheperkova, 2015). However, when comparing LG's social media followers in South Africa to that of Samsung, it is evident that the latter is in the lead; Samsung has more than 30 times as many followers on Twitter than LG does (Twitter, 2017b; Twitter, 2017c). When comparing the two, both South Korean companies, one must look at the marketing budget for each as well. Samsung spent approximately 10 billion US dollars, where LG spent 1 billion US dollars (Jonnalagadda, 2017; Rutnik, 2017).

There are numerous factors which could be attributed to LG's falling market share, such as uninspiring flagship models (Petrovan, 2016), a relatively low marketing budget (Rutnik, 2017), or their late entrance to the Android smartphone market (Pierce, 2013). If LG wants to compete on the same level as a company like Samsung, they will have to set themselves apart and offer something unique, which social media can offer. Next, this study will examine a brand which was one of the largest in the past but has become an ailing smartphone brand – Sony.

2.4.1.6 Sony

Sony began as Tokyo Telecommunications Engineering Corporation in 1946, where its plan was to create products that were a first for both Japan and the world. The founder of Sony stated that the purpose of the company was to "establish an ideal factory that stresses a spirit of freedom and open-mindedness that will, through technology, contribute to Japanese culture" (Sony, 2017). This translated into Sony making a host of products, from rice cookers to transistor radios, VCRs, portable tape players, among many other products (Hall, 2018).

One of Sony's first smartphones was the X1, which ran Windows Mobile. It was only in 2010, however, that Sony adopted the Android operating system and produced the Sony Ericsson Xperia X10 (Florin, 2016). Sony has enjoyed several years in which they brought out flagship phones (Wikipedia, 2017a; Wikipedia, 2017b; Williams, 2017; Velazco, 2016). Figure 2-9 shows an overview of their smartphone sales, year on year.
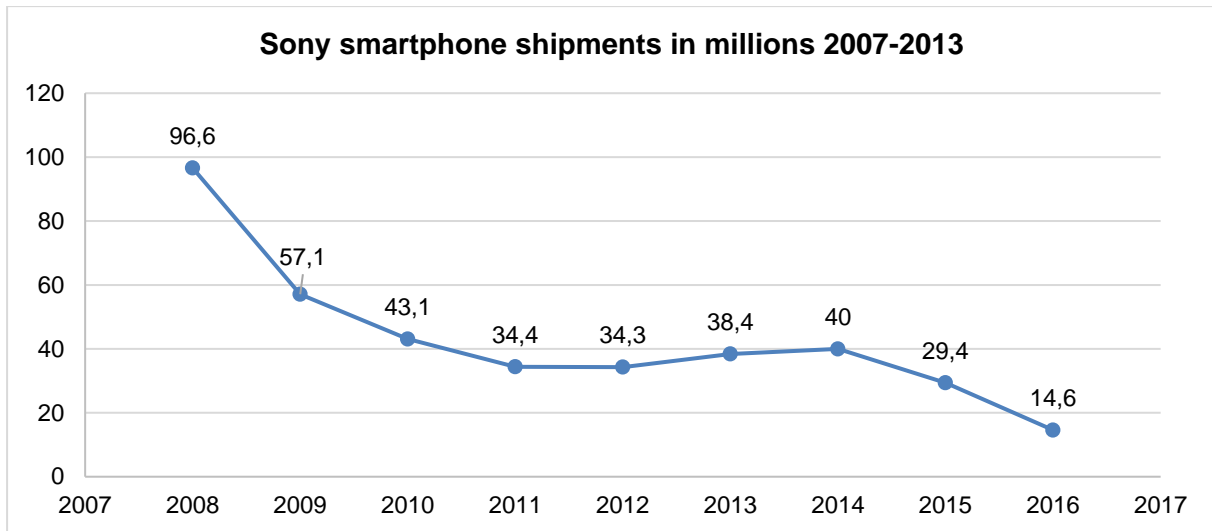
Figure 2-9: Sony smartphone shipments (Wikipedia, 2017a)

As can be seen from Figure 2-9, Sony started out strong with sales of 96.6 million in 2008, during which time they were using Windows Mobile as an operating system. One of the reasons for this success might be attributed to the fact that there were very few other smartphone vendors in the market. Thus, Sony's premium phones were an attractive prospect to consumers even though it carried a high price tag (Cha, 2008). From 2008, there was a downward trend until 2014 where sales picked up slightly. The trend downwards continued in 2015, until it reached 14.6 million in 2016 from the 96.6 million it once had, which was ahead of the likes of Samsung, Apple, Nokia, and BlackBerry. As such, even though the rest of Sony's divisions have been profitable over the years; their smartphone division has led to high losses (Patel, 2017). This suggests that Sony should make fundamental changes to how their smartphone division is run, with respect to design and marketing. Sony has a social media footprint across a wide variety of social media sites. They use these sites to promote their brand, their products, and to communicate with consumers and potential customers. However, the interactions per post are low, despite there being a social media team to encourage responses (Facebook, 2018c; Moth, 2013).

Sony was ahead of its competition for many years; however, their lack of product innovation, as well as their lacklustre social media presence, led them to stagnate in their mobile division. Therefore, Sony will have to build its smartphone brand up again by showcasing product quality and innovativeness (Bhasin, 2018), and ensuring that their social media marketing supplements their research and development efforts (Williams, 2017).

Next, this study will focus on one of the up and coming smartphone manufacturers, which has taken a high percentage of the market share in India and China and has set up a significant presence in South Africa as well.

2.4.1.7 Xiaomi

Xiaomi was founded in 2010 by Lei Jun, whose intention was to introduce high-quality products at affordable prices to the public (Xiaomi, 2017c). Xiaomi quickly entered the smartphone market after their founding, with the Xiaomi Mi 1, which was released in December 2011 (Wikipedia, 2017d). Xiaomi, being a new company, focussed on expanding in China first, and then went on to focus on growing their market in India (Singh, 2017).

Xiaomi has been a rising brand in the smartphone industry, which has become increasingly more prominent since 2011. Their line-up, which initially consisted of one phone, grew to encompass the higher end, middle end, and lower end of the smartphone spectrum (Wikipedia, 2017c). Figure 2-10 shows the total shipments of Xiaomi smartphones from 2012 to 2017.
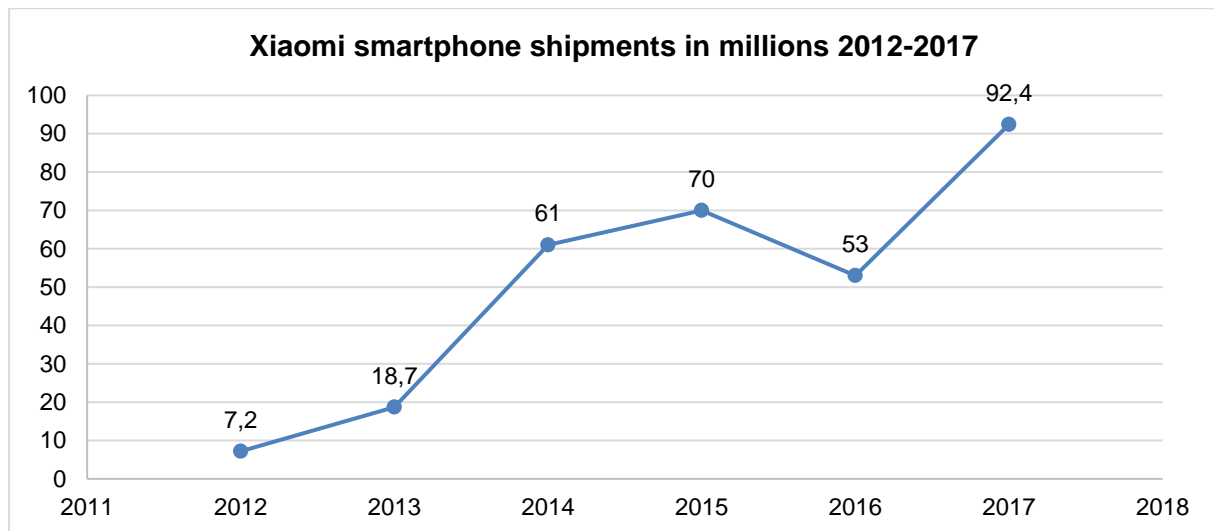
Figure 2-10: Xiaomi smartphone shipments (Statista, 2017c; Imel, 2017; Lee, 2016; Russell, 2015; Garside, 2014)

Xiaomi started out slowly with 7.2 million units in 2012 and rose significantly towards 2015. In 2016, their sales slumped, which followed a trend in the smartphone market, no different from that experienced by most smartphone brands. Xiaomi's reasoning behind their sales decline was the rapid rise of popularity for Huawei products, as well as the fact that their main market, China, had matured; naturally, the smartphone sales slowed down (Lee, 2016). However, Xiaomi again saw a rapid rise in sales in 2017, beating out many of the other large players in the market and secured its place in the top five smartphone brands in smartphone shipments.

Xiaomi's social media strategy is centred on finding out what fans of their products want by listening to their complaints and ideas. Xiaomi responds to comments and questions and carefully considers input from customers. Moreover, Xiaomi has large flash sales, which they advertise on social media, which receives a major response from customers: a case point being that they

managed to sell 720 000 devices in 12 hours (Market Me China, 2016). Due to listening and engaging with its fans, Xiaomi has reached a "cult-like" following in China and other parts of the world where masses of fans head to tradeshows and product launches of the brand. Using flash sales and stirring up excitement on social media has helped them achieve a great level of fandom, which has translated into loyal customers (Hong, 2014).

Xiaomi has shown remarkable growth over the years and has become one of the largest brands in the smartphone industry. Another brand, which is the last this study will investigate, has managed to capture a similarly large audience, as well as a significant increase in sales over the years: Huawei.

2.4.1.8 Huawei

Huawei was founded in 1987 by Ren Zhengfei, who grew the company over the next 30 years to become one of the largest telecom companies in the world (Huawei, 2016). Huawei's first entrance into the wider smartphone market was with its flagship Ascend-series, which was launched in late 2009 and used the Android operating system (Wikipedia, 2017e; Gedda, 2009). They have released new models nearly every year since then and have catered to the medium and lower budget consumer (GSM Arena, 2018b; Stevenson, 2018; Devo, 2017; Williams, 2016b; Peckham, 2017; Gedda, 2009).
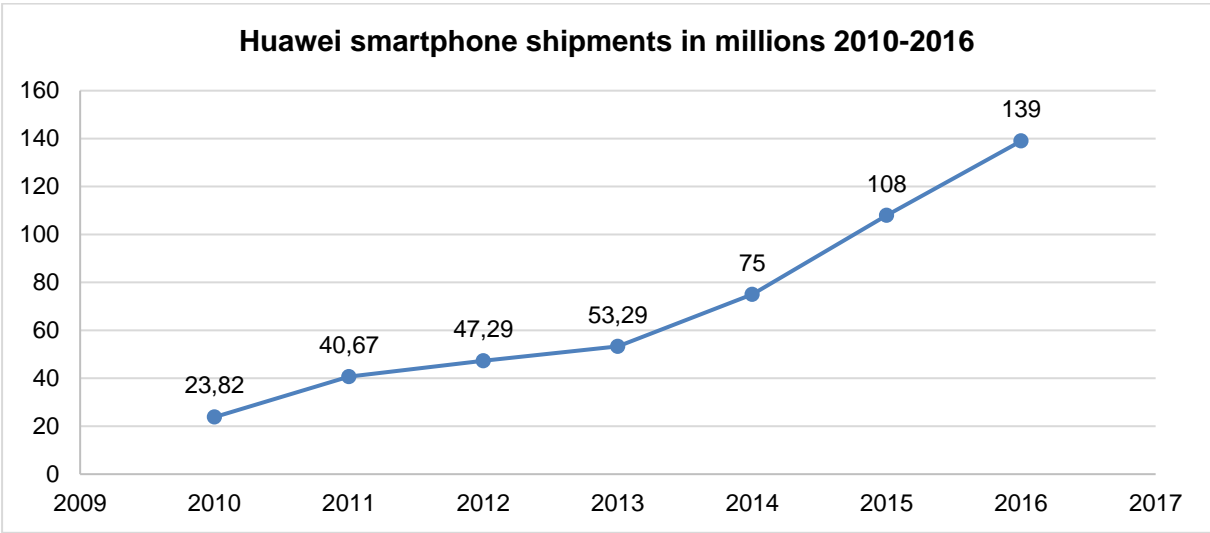
Figure 2-11:   Huawei smartphone shipments (Huawei, 2017; Lee, 2016; Statista, 2016c; Shih, 2014)

Huawei has shown considerable year on year growth since 2010 and was even able to see growth in 2016, where many other manufacturers experienced a slump in sales. Furthermore, Huawei has surpassed Xiaomi, BlackBerry, LG, Sony, and Nokia in global smartphone shipments. Huawei's social media and overall marketing strategy proved fruitful when they became the third

largest smartphone vendor, globally. Their marketing and social media strategies involved increasing brand awareness through focussing initial efforts on localisation. Furthermore, they enlisted celebrities as spokespersons and used visual media to engage customers on social media (Danao, 2017). Moreover, Huawei focussed much on the influencers on social media to convey their products and nuances of the business, which translated into impressive brand awareness (Tan, 2016). Huawei has shown that thinking differently about marketing is a rich method of creating brand awareness.

There appears to be a correlation between successful social media campaigns and overall brand success. However, product quality appears to play a large role as well. Thus, a high-quality product, coupled with well-planned, interesting, shareable social media marketing, can translate into maximum sales volumes. Huawei has proven this and have also shown the importance of targeting the Generation Y cohort, focussing their Honor range mostly on this cohort (Orlowski, 2018). The next section will focus on the segment that is sought after and cultivated by Huawei, and many other smartphone brands – the Generation Y cohort.

2.5   GENERATION Y COHORT

There have been several hypotheses laid out regarding the age bracket of the Generation Y cohort. Different authors have had varying opinions as seen in Table 2-4.

Table 2-4:   **Generation Y cohorts by varying authors (Lyons, 2016; Meier *et al.*, 2010:69; Sheahan, 2008:1; Markert, 2004:21)**

Author	Hypothesised Generation Y years
Meier *et al.*	1980 – 2000
Sheahan	1978 – 1994
Markert	1986 – 2004
Lyons	1980 – 1994

In this study, Markert (2004:21) will be used as it not only outlines the beginning and end of the generation but also defines the changes to the latter parts of the generation. Markert's definition states that the Generation Y cohort age bracket includes individuals who were born between 1986 and 2004. However, only those aged 18 – 24 were included.

The Generation Y cohort is a generation born into technology, who is also called the connected generation (Wilder *et al.*, 2007:3). They are a generation who cannot live without a smartphone, are self-absorbed, living in a state of perpetual adolescence, and a generation of narcissists. It

has also been posited that they are a generation who is creative, flexible, open-minded, have a strong sense of social responsibility, and have a real concern for the environment (Lyons, 2016).

Generation Y individuals have also shown that they want to be connected, without always being with others. This has been achieved through smartphones, which the Generation Y cohort seems to never want to live without (Freeman, 2012). This trend has continued throughout the decades and has grown to such an extent that the Generation Y cohort now interacts more through phones and apps than in real life (Sulleyman, 2017). The next section will briefly investigate this phenomenon by assessing the Generation Y cohort and smartphones.

2.5.1 Generation Y cohort and smartphones

Smartphone penetration among the Generation Y cohort, in the United States, grew from 80 per cent in 2015 to 88 per cent in 2016. Of these, 12 per cent had acquired their smartphone within the last three months (Nielsen, 2016). This rate of adoption is also rife among other generations, showing the growth and acceptance is unanimous across all generations, and not only with the Generation Y cohort (Jiang, 2018).

Several reasons have been proposed as to why the Generation Y cohort is so attached to smartphones. Smartphones are a portable video player, there is always a camera with the individual, it makes using social media easier, it is easy to make purchases from it, and it is becoming a digital assistant (DialogTech, 2016). There are other factors which are also attractive to the Generation Y cohort users: smartphones keep the Generation Y cohort connected with peers, provide options, give anonymity, and give a sense of confidence (Erickson, 2012). It has therefore been posited that the Generation Y cohort might be too fixated on their smartphones; they have them at arm's reach while they sleep, part of their morning routine, and generally forgo other mediums for their smartphones (Birch, 2014). This cohort is much more involved with their smartphones than other generations. They use their smartphones more than other mediums for shopping online, to read reviews, to check prices, and to compare prices on their smartphone, on-the-go (Acumen Insights, 2016).

This smartphone-attached generation also uses smartphones to stay connected. Their social media usage and habits show that they want to remain connected, whilst not always being socially active in person (Levin & Lamar, 2017; Agrawal, 2017b). The next section briefly investigates the Generation Y cohort and their social media habits.

2.5.2 Generation Y cohort and social media

Social media has changed the way individuals communicate. The Generation Y cohort also has shown a radical shift in their news consumption habits, as up to 88 per cent get news from Facebook, 83 per cent from YouTube, and 50 per cent from Instagram (API, 2015). It is because of the Generation Y cohort's fascination with, and reliance on technology and communication that they have been termed 'digital natives' (Bolton *et al.*, 2013:245). the Generation Y cohort has become so accustomed to social media that they make it part of their morning routine and have been dubbed 'over-sharers' by some (Gordon, 2014). Furthermore, the Generation Y cohort has shifted the way in which individuals communicate with organisations, as they now opt for social media interaction instead of using the phone. Thus, when organisations do not respond on social media, it is akin to hanging up the phone in the middle of a call (Generation Y, 2016).

A distinction could be made, however, between Generation Y individuals from different countries and cultures, as well as their financial standing. Usage patterns vary greatly in different socio-economic statuses (Bolton *et al.*, 2013:246). For this study, however, no distinction was made, as it was not the focus of the study. The next section will investigate the Generation Y cohort in relation to relationship marketing.

2.5.3 Generation Y cohort and relationship marketing

The Generation Y cohort, more than previous generations, crave a relationship with brands and organisations. They want to be loyal to a brand; however, this means that the brand would have to work hard at gaining that level of loyalty (Olenski, 2013b).

An important reason to target the Generation Y cohort is for their ability to influence others over social media. Services and products can be praised or lambasted, which means that organisations should invest extra effort in satisfying the needs of Generation Y individuals (Lazarevic & Petrovic - Lazarevic, 2009:64-65). There are several ways to ensure that customer experience will be positive and lead to building strong relationships. It is important for organisations to be subtle and genuine, have good timing in providing information, and think creatively (Fallon, 2014). A crucial point is that the Generation Y cohort is used to an abundance of information, quick firing messages, and bombardment of brands and advertising. Due to this bombardment, it might be difficult for an organisation to compete with other brands (Williams & Page, 2014:9-10). There are several things organisations can do to achieve this. Organisations should focus on making a connection with the Generation Y cohort; they should accept that the Generation Y cohort has different values to previous generations; the Generation Y cohort has an array of personalities and is therefore very diverse; they tend to lean more towards a quiet

lifestyle; they are very cautious and can be distrusting of brands and media (Nahal, 2013). Moreover, because of the constant bombardment with offers, the Generation Y cohort can quickly avail of substitutes, which is especially significant as they are the least satisfied generation. This reinforces the importance of finding ways to satisfy and gain their trust and loyalty (Bilgihan, 2016:103).

the Generation Y cohort is constantly bombarded with offers, advertisements, and information. However, organisations which make use of social media in the correct way can reach out to the Generation Y cohort, and even build relationships with them. However, challenging this task may be, it can be very rewarding for organisations in the long term (Speier, 2016; Fallon, 2014).

2.6 CHAPTER 2 SUMMARY

This chapter expanded on theory regarding relationship marketing, social media, smartphones, and the Generation Y cohort, as well as discussing the Generation Y cohort in context to the aforementioned topics.

Relationship marketing has changed since its theoretical inception and has provided a welcome shift from sales-oriented marketing, towards marketing focussed on longevity. This change has brought about a new era in which individuals are no longer static observers but have become stakeholders in the organisation. In fact, the change has been so drastic that there are now customers who can be referred to as advocates or evangelists, who defend and promote products, without having to be paid for this. This change has brought advantages to both consumers and organisations in that consumers are better taken care of, are kept in the loop regarding new information, and can easily communicate with organisations. From the organisation's side, they are more assured of revenue, there are brand advocates who are willing to defend them in any and all cases, and even those who are not advocates, are oftentimes happy to help others on social media sites when they have a problem. This saves the organisation time and money. Moreover, social media has brought about an age of relatively inexpensive advertising, in which individuals can partake in the content, share it, and even create content of their own.

the Generation Y cohort is seen as a perfect generation for organisations to better their relationship marketing tactics and skills. It is a generation that was born into technology but might still recall a time when the internet was much slower and social media did not exist. This chapter served to provide a theoretical framework regarding the focus of the study, which are relationship marketing, social media, smartphones, and the Generation Y cohort. Thus, with the theoretical

framework, and the empirical framework, a model can be built to help organisations reach a point where individuals become advocates.

As such, the next section focusses on the factors which are used in the empirical portion of this study. These factors are aimed at culminating in brand advocates through the variables brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

CHAPTER 3 FACTORS INFLUENCING EFFECTIVE RELATIONSHIP MARKETING

3.1   INTRODUCTION

Social media has shifted the way in which people discover, read, and share news, information, and content. It allows people to connect to one another and to the brand they love (ISM, 2010). The one-way flow of information has ended and ceded a new era in which there is both the consumption of content but also the creation of content by individuals. These individuals form part of the brand and part of their community, which forms a relationship (Dirks, 2012). This social media phenomenon has had a significant impact on how individuals behave online and have given many more options in what is possible to do online. For this reason, brands have strived towards merging their offline and online selves into one coherent form, or as an extension of itself (Kietzman *et al.*, 2012:109).

A branch of products which have embraced social media and online marketing are smartphone brands, of which many spend a sizable portion of their budgets on digital marketing. Smartphone brands are extending into all digital channels including social media, with the aim of increasing their global footprint (Khan, 2015). This push into social and striving towards becoming a point of online conversation has shown to be a relevant strategy, as online conversation garner higher numbers of sales (Statista, 2014b).

As such, this study aimed towards finding a model in which factors influence effective relationship marketing by smartphone brands through social media amongst Generation Y students. The empirical objectives were set out according to brand loyalty (Sahin *et al.*, 2011), brand experience (Sahin *et al.*, 2011), perceived usefulness (Rauniar *et al.*, 2014), anticipated benefits (Ashley *et al.*, 2011), brand activities (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011), brand community (Laroche *et al.*, 2013), intention to be involved (Ashley *et al.*, 2011; Rauniar *et al.*, 2014), brand trust (Sahin *et al.*, 2011), commitment (Badrinarayanan & Laverie, 2013), intention to advocate and be loyal (Lee *et al.*, 2010; Wallace *et al.* 2014). The ultimate goal was to measure the proposed model set out in Section 3.2.

The chapter layout is as follows. Section 3.2 shows the marketing models influencing the conceptual framework. The next section, Section 3.3 outlines the factors identified in the conceptual framework. Section 3.4 shows, the factors explanation, in which each factor is discussed in more detail. The last section, Section 3.6 gives a brief conclusion to the chapter, as well as serving as a mini-introduction to the next chapter. The empirical objectives of the study are listed in Chapter 1.

3.2 MARKETING MODELS INFLUENCING THE CONCEPTUAL FRAMEWORK

Relationship marketing has been a part of organisational culture for centuries and has always been based on factors such as trust, loyalty, and previous experience, despite there being no official theory behind it (Juneja, 2012). Studies into relationship marketing would eventually show that trust and commitment were fundamental aspects of relationship marketing (Mack, 2017). However, as trends changed and markets and competition grew, organisations began to realise that another part of this model was required, brand loyalty. For organisations to ensure their survival, they needed to thus build trust and commitment, and reach brand loyalty among their customers (Ndubisi, 2007:98-99). Assessing satisfaction, trust, and loyalty aided by brand experience to assess the relationship also formed part of elementary models, (Sahin *et al.*, 2011:1293); however, more complex models have also been proposed (Palmatier & Grewal, 2006:137).

The model below, Figure 3-1 shows a simple model based on the foundations of relationship marketing (Sahin *et al.*, 2011:1293).
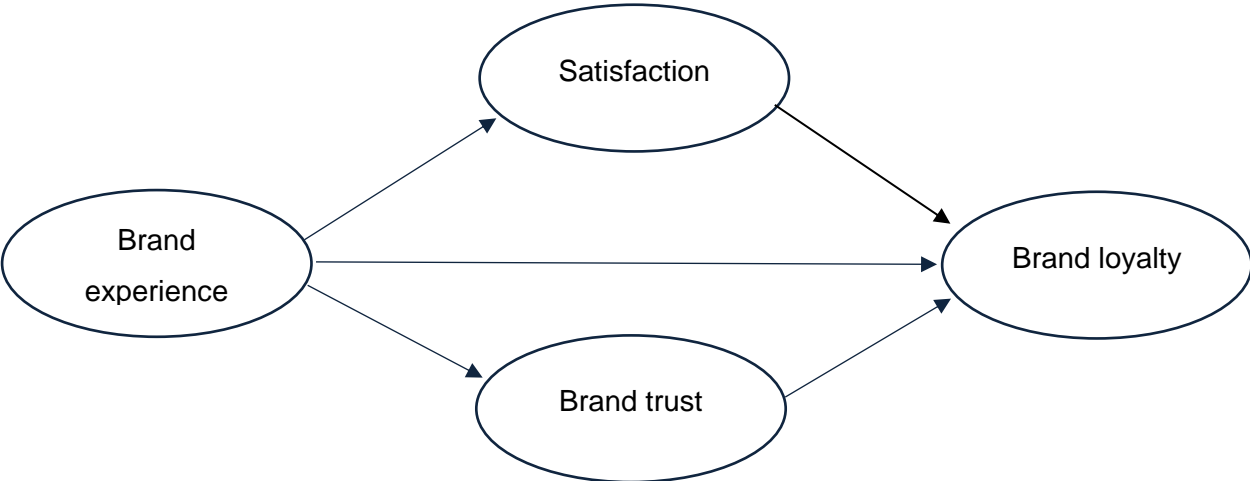
Figure 3-1:   Rudimentary relationship marketing model (Sahin *et al.*, 2011:1293)

Figure 3-1 hypothesises that the individual must experience the brand before they can trust, be satisfied, and in the end, be loyal to the brand. More detailed studies have also been proposed, showing the complexity of the individual in decision-making. Here, factors such as satisfaction, commitment, trust, and intentions have also been used to gauge relationships, as seen in Figure 3-2 (Garbarino & Johnson, 1999:75).
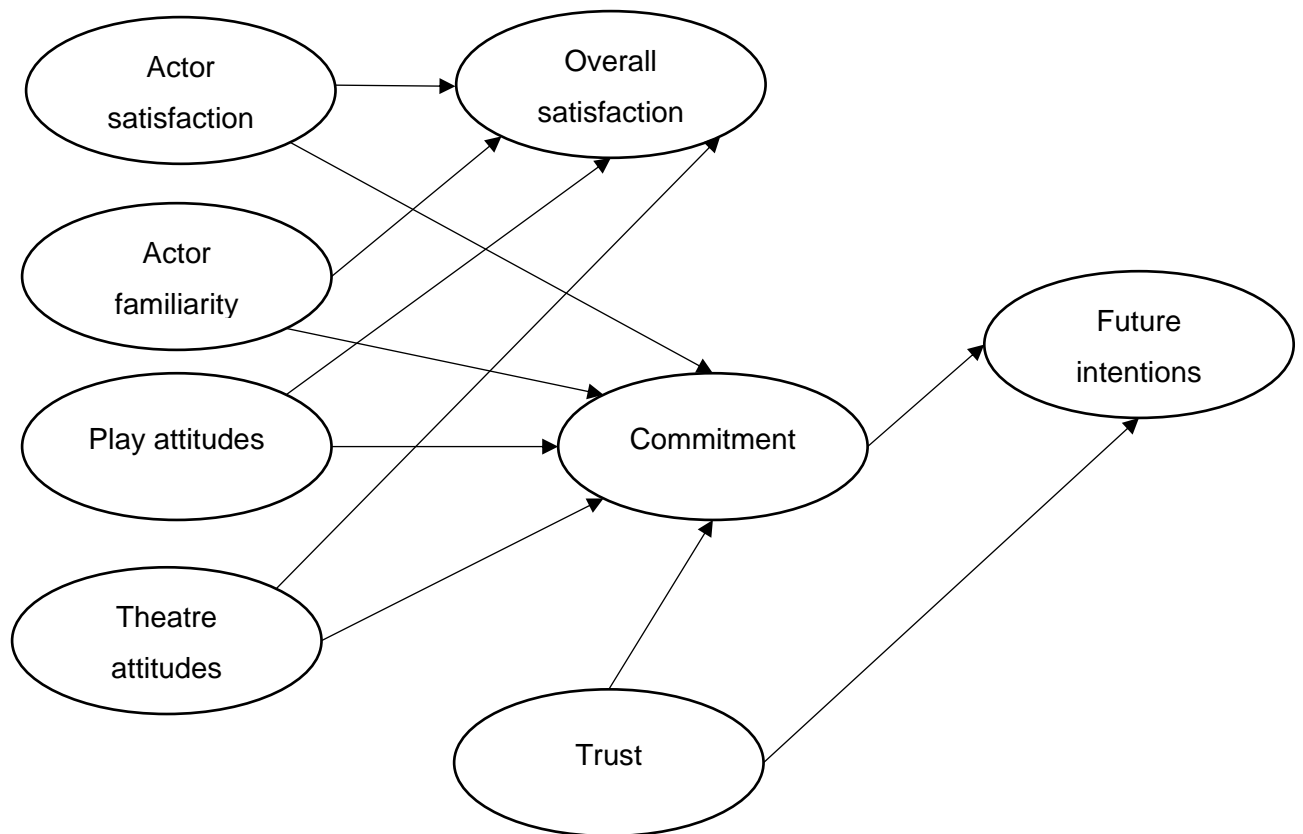
Figure 3-2:   Relationship marketing model (Garbarino & Johnson, 1999:75)

Figure 3-2 shows that attitudes and familiarity played a base role in whether there would be trust, commitment, and future intentions to use. Satisfaction did not play a role in future intentions, which indicates that it may vary from sector to sector. Moreover, trust seems to have a direct effect on both commitment and future intentions. Walter *et al.* (2003:160) studied relationship marketing at the hand of quality, commitment, trust, and satisfaction. The increased prevalence and importance of relationship marketing and the increase in the study into this topic saw the expansion of models. Palmatier and Grewal (2005:34), for example, proposed a model in which relationship benefits, dependence on the seller, relationship investment, and relationship duration (among others) were mediated by commitment, trust, relationship satisfaction, and relationship quality as seen in Figure 3-3.
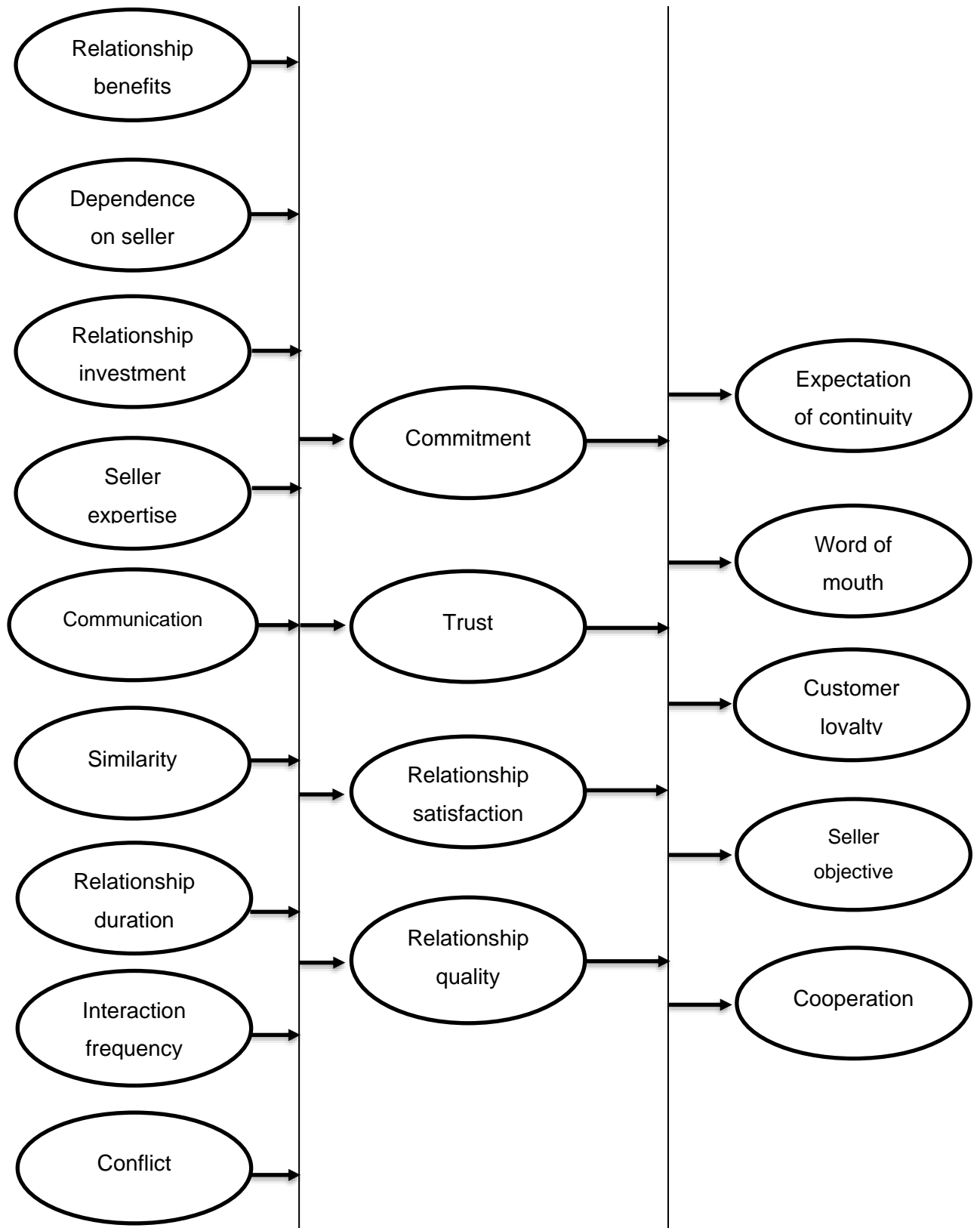
Figure 3-3:   Relationship marketing model (Palmatier & Grewal, 2005:34)

Numerous models have been used, changing some aspects, however, much of the essential parts have remained similar (Verma *et al.*, 2015:2017), which shows a similar framework to Figure

3-3 above. As such, a common denominator in studies regarding relationship marketing, became experience, trust, commitment, satisfaction, loyalty, and word of mouth.

Growing trends in social media and online marketing have had a crucial and sustained impact on how relationship marketing has been conducted (Johansson, 2017; Tam, 2015). Thus, a continuing evolution of the way models are proposed should be followed to keep up with the changing landscape. The model proposed for this study uses several of the traditional relationship marketing factors but expands on others to broaden the information and context of the data. As seen in Figure 3-4 below, this study hypothesises that brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community, are mediated by intention to be involved to brand trust. Brand trust, in turn, is mediated by commitment to advocacy intention. Lastly, commitment leads to advocacy intention.
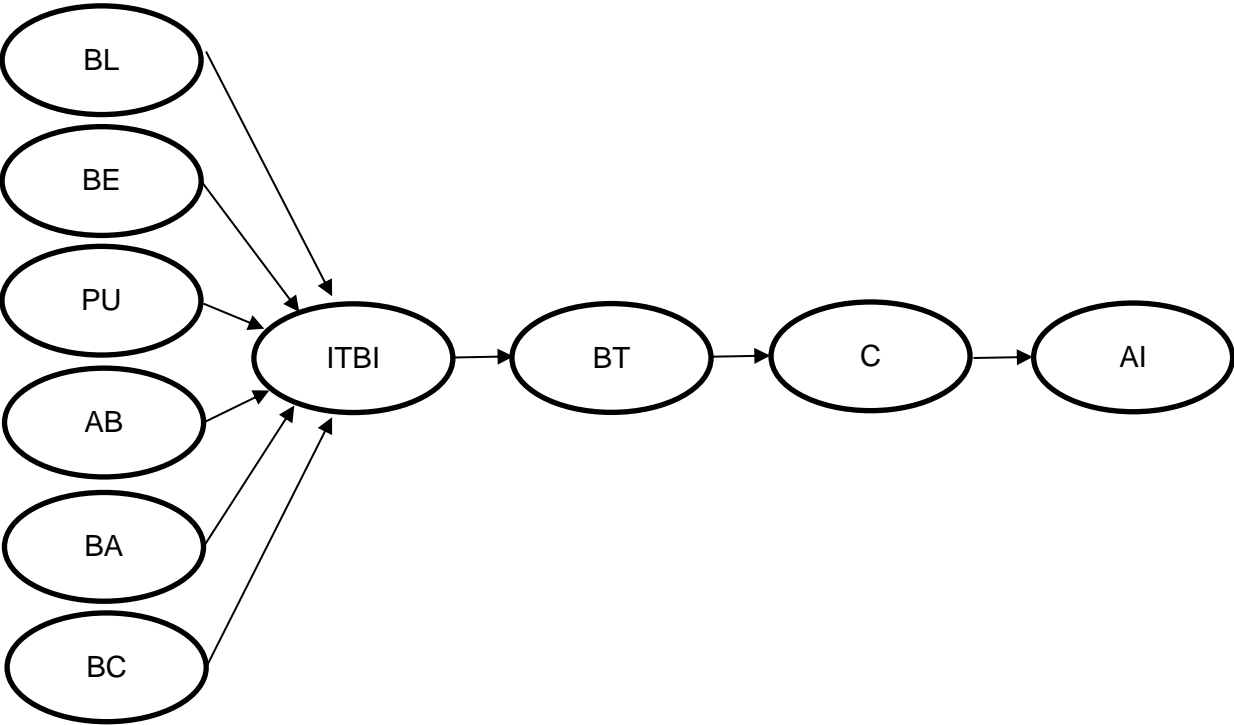
Figure 3-4: **Conceptual framework (BL = Brand loyalty; BE = Brand experience; PU = Perceived usefulness; AB = Anticipated benefits; BA = Brand activities; BC = Brand community; ITBI = Intention to be involved; BT = Brant trust; C = Commitment; AI = Advocacy intention).**

This study used brand loyalty as an independent variable, to ascertain whether loyalty to a brand would affect individuals' interest in using the social media pages of brands. Brand experience was argued to be important in whether the individual would make further use of a brand or its social media pages. Next, this study hypothesised that those who found social media to be useful would be more likely to make use of the social media pages of brands. Anticipated benefits and brand

activities were used as it has been suggested that individuals need the motivation to take part in the social media pages of brands (Carter, 2018). Communities were also implemented in the study, to ascertain what effect brand communities on social sites have on users. The aforementioned factors were the independent variables in the study, which were mediated by the intention to use. It was hypothesised that the individual first needed to make use of social media pages before they could build trust and later commit. Finally, only after being committed, would they reach a point of being ready and willing to become brand advocates.

The conceptual framework as seen in Figure 3-4 above is explained in more detail in the following sections. Firstly, the next section provides a definition for each of the factors used, to illumine their meanings in the context of this study. Thereafter, a brief discussion is provided for each of the factors used, to explain their context to this study and to the Generation Y cohort.

3.3   FACTORS IDENTIFIED FOR THE CONCEPTUAL FRAMEWORK

Table 3-1 below shows the factors that were identified for use in this study as well as a citation regarding the author of the study from which the factor was taken. The second column provides a definition for each of the factors, to illumine their meaning in this context.

Table 3-1: **Conceptual framework factors and definitions**

Factor	Definition
Brand loyalty (Sahin *et al.*, 2011)	"Deeply held commitment to rebut or patronise a preferred product/service consistently in the future, theory causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour"
Brand experience (Sahin *et al.*, 2011)	"Brand experience is conceptualised as sensations, feelings, cognitions, and behavioural responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments"
Perceived usefulness (Rauniar *et al.*, 2014)	"The degree to which a person believes that using a particular system would enhance his or her job performance"
Anticipated benefits (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011;)	"Kinds of activities organisations have on the social media they use"
Brand activities (Ashley *et al.*, 2011)	"Organisations typically design relational programs to benefit the customer, since the customer will realise rewards and garner special treatment from the firm through participation in the programs"
Brand community (Laroche *et al.*, 2013)	"Specialised, non-geographically bound community based on a structured set of social relations among admirers of a brand"
Intention to be involved (Rauniar *et al.*, 2014; Ashley *et al.*, 2011;)	"Intention to use social media is the voluntary and cognitive representation of the user's readiness to actually use the social media"
Brand trust (Sahin *et al.,* 2011)	"A brand is a trust mark for all intangible trust-generating activity, and absent human touch, it can be a symbol of quality and assurance in building trust
Commitment (Badrinarayanan & Laverie, 2013)	"An enduring desire to maintain a valued relationship. Commitment toward an entity is considered as a psychological state that leads to favourable behaviour toward that entity"
Advocacy intention (Lee *et al.,* 2010; Wallace *et al.* 2014)	"While advocacy is frequently regarded as a soft form of loyalty because it is not easy to implement, consumers will recommend others when they really identify with it. Consumers that create strong connections, satisfaction, and repurchase intention with stores, stores will further be rewarded with strong positive word of mouth and advocacy loyalty"

All definitions were taken directly from the studies from which the factors were taken. These provide a brief overview of the independent variables, mediators, as well as the dependent

variable. The next section investigates each of the variables, in turn, to explain their content and context to the study.

3.4 EXPLANATION OF FACTORS

The focal point of this study was to find the route towards achieving advocacy towards the social media site of specific smartphone brands. As such, this study proposed the following factors, which are each discussed by providing an introduction, the importance of each factor, the interrelationship to other factors. Next, each factor is discussed as effective relationship marketing through social media, followed by a brief link to the Generation Y cohort. Thereafter, a short conclusion is given. The factors, as seen in Table 3-1, are brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

3.4.1 Brand loyalty

Brand loyalty is the continuation in using a product or service of the same brand on a recurring basis, despite the availability, influences, and marketing of other brands (Sahin *et al.*, 2011:1291). Thus, brand loyalty necessitates faithfulness to a specific brand by consumers, which is, in its rawest form, expressed through repeated purchasing (Investopedia, 2017b). Loyalty has become increasingly important due to the competitive nature of markets, regardless of sector. As such, many have had to rethink the ways in which they achieve loyalty, because of the importance of keeping customers loyal (Hammet, 2018).

3.4.1.1 Importance of brand loyalty

As increasing brand loyalty is seen as being of utmost importance for organisations (Wanchoo, 2017; McAlexander *et al.*, 2002:38), it is important to identify the processes needed to achieve that loyalty (He *et al.*, 2011:648). This is a continuing process as brand loyalty must be nurtured or it will fade away when neglected. Thus, it is important to note the two factors of brand loyalty, namely attitude and behaviour. It is in nurturing the attitude and behaviour of individuals, that loyalists become fans or advocates of a brand (Lipton, 2014:4). Moreover, it is a crucial aspect in the success of many brands as it is more expensive to seek new customers, recurring customers spend more than new customers, and it is much easier to collect data from loyal customers through loyalty cards or programmes (Penefit, 2015). In addition, those who are brand loyal give positive word of mouth, and peer recommendations; thus, brand loyalty has cemented itself in marketing as a staple of success and should be a priority for most businesses and brands (Kiwaluk, 2015).

A distinction should be made between satisfaction, loyalty, and advocacy, as they are not the same, even though they are on a spectrum (Williams, 2015). Brand satisfaction is seen as the extent to which the brand meets or exceeds the subjective expectations and evaluations of the buyer or user (Sreejesh & Mohapatra, 2014:38; Engel *et al.*, 1990:481). Next, brand loyalty has become a recent trend where organisations seek long-term relationships between the buyer and the seller. In these relationships, the brand experience is the main input and brand loyalty the output (Sahin *et al.*, 2011:1288). Finally, the spectrum ends with brand advocacy, which is seen as the word of mouth, as well as further actions which recommends certain behaviour by consumers (Javed *et al.*, 2015:40). Thus, loyalty is seen as the re-patronising of a brand by an individual, where switching to another brand is much less likely to occur by that individual (Sahin *et al.*, 2011:1291). Advocacy, then, is seen as the individual trying new products from the brand, talking up the brand, and the willingness to forgive wrongdoing by the brand (Wallace *et al.*, 2014:35). Despite being on a continuum, all these aspects of this are difficult to achieve and easy to lose, when not nurtured and grown. Therefore, organisations should accept that loyalty is a complex phenomenon that cannot be achieved in and by itself, without researching the complexities that surround and influence it (Ellis, 2013).

3.4.1.2 The interrelationship of brand loyalty to other factors

Brand loyalty is made up of two primary components, namely physical and relational. Physical makes up the physical environment, which are the sights, sounds, smells, touch, whereas relational components comprise behaviours of people. Furthermore, there appears to be a strong correlation between brand experience, satisfaction, brand trust, and brand loyalty (Sahin *et al.*, 2011:1291, 1293). A correlation has also been found between brand loyalty and brand community, where information is shared, in turn laying a foundation for the history and culture of the brand (Muniz & O'Guinn, 2001:420-421). Other constructs, such as perceived value, are also often used in conjunction with brand loyalty (He *et al.*, 2011:648).

An aspect which is closely interlocked with brand loyalty is the brand experience. It is argued that a greater brand experience would lead to greater brand loyalty (Iglesias *et al.*, 2011:571). The study of Sahin *et al.* (2011), from which this factor was taken, used a rudimentary model to test brand loyalty regarding global brands. Their model focussed on brand experience as the independent variable, which affected brand loyalty directly, as well as indirectly, through the mediators: satisfaction and brand trust. They also tested satisfaction and brand trust each as dependent variables, with brand experience remaining the independent variable. Their findings showed that brand experience influenced satisfaction, brand trust, as well as loyalty. Crosby (2017) asserts that social media is a valuable tool to build brand loyalty as it connects organisations and individuals in a manner that was never possible before. However, reaching

brand loyalty on social media can only be effective when the correct tools are used in the correct way, showing once again the complexity behind the relationship between individuals and organisations.

3.4.1.3   Brand loyalty in context

In the context of this study, brand loyalty was investigated as an overall loyalty towards the Generation Y students' favourite brand of smartphone. As brand loyalty is seen as the continued purchases of a product or service, which is founded based on positive brand experiences (Sahin, *et al.*, 2011:1291-1292); this study aimed to assess whether this loyalty translated into using the social media pages of these brands. The reasoning behind this is due to the shift in marketing tactics, in that marketers now seek to make a connection with consumers, rather than simply trying to sell them products or services (Erdogmus & Cicek, 2012:1355). Moreover, other studies have been conducted regarding the effect of social media on brand loyalty (Laroche *et al.*, 2013:76) however, few studies have conducted an empirical study regarding the effect of brand loyalty on social media usage. That is to say, whether being loyal to a brand convinces consumers to also make use of the social media pages of that brand. For this study, brand loyalty was extracted, and its questions modified to use as an independent variable, in contrast to the traditional use of brand loyalty as a dependent variable. Thus, advocacy, even though often used interchangeably with loyalty, is considered as the next step in loyalty, and was used as the dependent variable (Fiorella, 2013).

The items used for this study came from Sahin, *et al.* (2011:1295), which studied brand loyalty as a dependent variable, preceded by satisfaction, brand trust, and brand experience. In this study, it will be tested to ascertain whether being loyal to a brand would entice consumers to make use of the social media pages of those brands and whether they would then be committed to those pages and be loyal towards the pages specifically. Thus, as brand advocacy is the evolution of loyalty, this study aimed to measure the effects of brand loyalty as an independent variable. Moreover, this study measured the model regarding the social media pages of brands, not the brands themselves. Therefore, the intention was to ascertain whether brand loyalty, through mediators affected an individual's intention to advocate the social media pages of brands. Brand loyalty, as taken from Sahin *et al.* (2011) is related to the brand itself.

3.4.1.4   Generation Y cohort and brand loyalty

the Generation Y cohort is the most connected generation to date and has been shown to be, in some circumstances, a loyal generation when it comes to brands (Smith, 2015). the Generation Y cohort, as a highly educated, career-driven generation, sees itself as a generation which is void

of loyalty towards brands, however, data suggest that, despite the plethora of choice, the Generation Y cohort is more loyal than previous generations (Johnston, 2017). A reason behind this could be because the Generation Y cohort is technologically connected, and despite not being swayed by advertisements, they read reviews and value authenticity. Therefore, brands that are authentic, original, and have good reviews, would have an increased loyalty base (Schawbel, 2015).

3.4.1.5 Summary of brand loyalty

Brand loyalty is an important component for businesses that focus on relationship marketing. Moreover, as the Generation Y cohort has shown to be more loyal than other generations, they are an important target market for relationship marketing. This study aimed to test whether being loyal would lead to advocacy. Where brand loyalty tests whether Generation Y students are loyal to a certain smartphone brand and what that entails. As shown before, the brand experience is an important aspect in route to brand loyalty, and brand loyalty is a continuum that leads to advocacy. As such brand experience is discussed next focussing on the actual experience the respondents had with a brand.

3.4.2 Brand experience

Brand experience is conceptualised as sensations, feelings, cognitions, and behavioural responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments (Sahin *et al.*, 2011:1288). It is considered to be an important part in the brand-building process and is a subjective and internal consumer response, which comes from feelings, cognitions, and sensations (Iglesias *et al.*, 2011:571). This is a significant factor in dealing with customers as the actual experience is invisible and exists in the mind of the customer. As such, the experience is a psychological state and the degree of experience will differ between customers (Yoon & Youn, 2016:3).

3.4.2.1 Importance of brand experience

Brand experience are the sensations, feelings, and cognitions that an organisation uses to build brand resonance, by delivering favourable experiences (Shieh & Lai, 2017:63), which is why it is an important factor in marketing, as consumers wish to interact with brands that provide unique and memorable experiences (Sahin *et al.*, 2011:1288). One way of achieving these memorable experiences is through emotional engagement, which provides an opportunity for businesses to differentiate themselves from competitors (Hudson *et al.*, 2015:74). It has also been found that sharing information and brand experiences regarding a brand, leads to positive feelings and empathy towards that brand (De Vries *et al.*, 2012:86). Therefore, brand experiences should be

encouraged as often as possible, as positive brand experiences can reduce negative effects that are caused when a brand is in the wrong (Hsiao *et al.*, 2015:863). This has been shown, for example, in how Samsung handled the event of their Galaxy Note phone, which had severe battery defects, which led to spontaneous micro-explosions. Samsung, being a brand that often interacts and communicates with their customers, and through previous positive brand experiences, and handling the situation correctly, the negative impact of this phenomenon was mostly negated (Brown, 2016).

Practically, in the online sphere, it is important for brands to have interactive features and have a brand website, as this plays a critical role to enhance the relationship with customers. A website with information that empowers consumers can play a significant role in brand experience (Yoon & Youn, 2016:1). Social media sites such as Facebook and Twitter have taken over the function of communication and now houses more content than websites. As such websites should aim to also provide information richness and good communication, to enhance the overall experience with the brand (Halbrooks, 2018).

Engaging with individuals is a crucial factor in business and helps business remain relevant for longer. Many organisations have realised this, which is why a sizable portion of their marketing budgets are aimed at driving better brand experiences (Brown, 2018). Favourable brand relationships decrease the number of customers switching and enhance the psychic benefits for those customers. These relationships are enabled through brand experiences (Kumar & Kaushik, 2018:1). However, as the brand experience is subjective and is complex in nature, it should be assessed as a multifaceted phenomenon (Brakus *et al.*, 2009:53-54). The next section investigates how each brand experience connects to other factors.

3.4.2.2   The interrelationship of brand experience to other factors

According to Sahin *et al.* (2011:1289, 1293), brand experience and brand meaning are intertwined, with brand meaning being an important mediator between consumer brand relationships and brand experience. Thus, it is important to note that brand experience should not only affect past directed satisfaction judgements but should also affect future directed consumer loyalty. Moreover, the author shows a high correlation between brand experience, satisfaction, brand trust, and brand loyalty.

As brand experience can influence brand trust, consumer satisfaction, brand loyalty, and by extension, brand advocacy (Sahin *et al.*, 2011:1290; Ha & Perks, 2005:445-447; Zarantenello & Schmitt, 2000:532; 536), organisations should build emotional bonds, which are crucial for building loyalty and creating advocacy (Hudson *et al.*, 2015:74). Building this brand experience

can be done by consistently offering quality products, which will lead to customer satisfaction. Coupling this with micro-interactions will enable brand loyalty, regardless of the various competitive offerings provided through technology, as emotional value supersedes wealth of knowledge (Lipton, 2014:8). However, brand experience must focus on the quality of their products as well as on communication and advertising in order to motivate trust. In doing so, consumers will be led to become committed to the brand, which finally leads to brand loyalty (Iglesias *et al.*, 2011:571).

The way in which the brand is viewed is based on the experiences that customers have with the brand. Thus, the totality of the experience and the tone of the experience are important factors in how the brand will be perceived (Joseph, 2013). Furthermore, connections, content, and advertisements are a promise, which the brand gives to customers of what the experience will be like. When the experience does not live up to the standards that the company itself has set, commitment, trust, and loyalty may be a foregone conclusion. Thus, a brand must focus on all aspects of what its product or service, starting with how it is promised, up until how it is delivered, and after-sales service (Henderson, 2017). This is due to brand experience involving the individual's holistic interaction with the brand, which then shapes their focus (Sahin *et al.*, 2011:1289-1290).

3.4.2.3 Brand experience in context

In this study, brand experience was used as an independent variable, which was mediated by intention to be involved, which in turn was mediated by brand trust, which was mediated by commitment, to the final dependent variable, advocacy intention. Therefore, the model in this study is an expansion of the study of Sahin *et al.* (2011), in which only brand trust mediated brand experience. Thus, it was assessed whether brand experience contributed to whether Generation Y students would use the social media pages of brands, and what the attributes of that correlation meant. Moreover, the aim was to research whether brand experience had an impact on whether Generation Y students would become brand advocates if other factors were met. the Generation Y cohort fits well into this focus as experiences have become more intrinsic to their shopping behaviour (Fromm, 2018). The Generation Y cohort and brand experience will be investigated more in-depth in the next section.

3.4.2.4 Generation Y cohort and brand experience

The Generation Y cohort is a generation that revels in the experience and likes to share this experience with their social connections. As such, brands should focus on not only delivering a quality product but focus on the holistic experience, when focussing on the Generation Y cohort

(Fromm, 2016). In order to form the experience, brands should keep in mind that the Generation Y cohort is a connected generation, and it is the first generation born into the internet age. As such, there are several things brands can do to supplement the brand experience with online and social aspects. Firstly, brands should keep their products and information relevant and should stay true to the nature of the company. Furthermore, having a website, advertising, and forming connections through social sites such as Facebook are crucial (Van Lieven, 2014).

3.4.2.5 Summary of brand experience

Experiencing a brand's service or product forms a crucial part of the holistic experience. This experience, when properly delivered, can motivate Generation Y students to become more involved and towards becoming loyal to the brand. However, providing an experience that is equal in perception versus expectation is difficult as experience is a subjective view. The experience is also influenced by how useful the product, service, or mediums are (Åkesson, 2016). Therefore, the next section briefly looks at the perceived usefulness.

3.4.3 Perceived usefulness

Perceived usefulness forms part of the technology acceptance model in which perceived usefulness is seen as the extent to which an individual believes "something" will help them perform a task better (Thominathan & Ramayah, 2015:78). Perceived usefulness, known as extrinsic motivation, is linked to motivation to use information technology, where extrinsic motivation is seen as taking an action which will provide value to the individual (Liaw & Huang, 2013:16; Lin & Lu, 2011:1153). The technology acceptance model uses perceived usefulness in conjunction with ease of use, to gauge behavioural intention (Elkaseh *et al*., 2016:192).

3.4.3.1 Importance of perceived usefulness

Perceived usefulness is the extent to which it is believed by a social media user that using social media would help meet an end goal or need of the individual. The conclusion was drawn that perceived usefulness was an important determinant of the user's intention to use social media, which is an indicator of actual usage (Rauniar *et al*., 2014:10, 25). Essentially, it is important for brands to use social media sites that are useful to individuals.

Perceived usefulness is an important factor in the technology sphere, as it is the subjective view that an individual has regarding whether technology will make their life easier. Thus, it is important for brands to know that the technology they adopt, such as social media, is useful to the individual using it (Bugembe, 2010:16). There are several key factors that influence whether something is useful. How fast it is, how time-saving it is, how much effort it can save, how much costs it can

reduce and how useful it is, overall (Renny *et al.*, 2013:215). Therefore, usefulness depends highly on which medium is used, and for what reason. Thus, where online activities are involved, users would look at information, accessibility, speed, and convenience, which would influence the perceived usefulness. This is especially true when considering that the perceived usefulness is related to the outcome of the experience. A good experience will increase the perceived usefulness (Yoon, 2015:24). Generally, perceived usefulness is an indicator used in the technology acceptance model, which would assess for an outcome and behaviour (Thominathan & Ramayah, 2015:78). The next section briefly examines perceived usefulness in conjunction with other factors.

3.4.3.2 The interrelationship of perceived usefulness to other factors

Perceived usefulness, in the model by Rauniar *et al.* (2014) who based their model on that of Davis (1993), who proposed that perceived ease of use of technology was mediated by perceived usefulness of technology, to intention to use technology. Perceived usefulness, in turn, was mediated by the attitude towards technology and intention to use technology to the dependent variable, actual use of technology. Rauniar *et al.* (2014) argued in favour of a new technology acceptance model. This model had perceived ease of use, critical mass, capability, and perceived playfulness, mediated by perceived usefulness, which in turn was mediated by intention to use to the dependent variable actual use. They also added trustworthiness as an independent variable, only mediated by intention to use to the final variable actual use.

Perceived ease of use is seen as the extent to which an individual believes that usage of a system would be free of effort. This, along with perceived usefulness of a system is an accurate predictor of individuals' attitude towards using that system (Rauniar *et al.*, 2014:10). Furthermore, perceived ease of use and perceived usefulness are important to predict intention to use (referred to as intention to be involved, in this study) social media (Elkaseh *et al.*, 2016:192). However, perceived ease of use has a lesser impact than it had in previous years, which has been attributed to the fact that user interfaces for new technologies have improved drastically (Brown *et al.*, 2014:10). Social media and social networks tend to have high ease of use, as it is seen as relatively easy for brands to partake in social media, and thus to reach them or reach out to them (Ashley & Tuten, 2015:23). Perceived usefulness can, furthermore, be influenced by subjective norms, such as the opinions of friends and family, or what society deems as useful (Van Deventer, 2015:11).

Perceived usefulness is essentially a subjective view that assesses whether the respondent finds whatever is tested, useful in their lives. This test can show the correlation between usefulness

and intention to be involved, and whether it finally leads to advocacy intention. The next section explains how perceived usefulness was used in this study.

3.4.3.3   Perceived usefulness in context

The technology acceptance model generally consists of perceived usefulness, perceived ease of use, intention to use, and subjective norms, which then assesses usage behaviour (Wingo *et al.*, 2017:17). Moreover, perceived ease of use, perceived usefulness, and trust can be independent variables for the dependent variable "attitude towards" (Renny *et al.*, 2013:213). This study, however, uses only part of the technology acceptance model, namely perceived usefulness and uses trust, to gauge the effect on commitment and finally advocacy intention. Therefore, their proposed model was deemed viable, and certain elements (perceived usefulness and intention to be involved) were taken and amended for this study. Perceived usefulness will examine whether the usefulness of social media had an impact on whether Generation Y students had the intention to be involved in the social media pages of smartphone brands. Here, it was hypothesised that the respondents would only make use of a social network that they deemed to be useful, and thus not use all social networks. This hypothesis stemmed from the fact that the Generation Y cohort tends to spend a lot of time on social media channels, and with new social media networks coming into existence, brands should exercise caution on where to spend scarce resources, and where not to (Onyemauwa, 2017).

3.4.3.4   Generation Y cohort and perceived usefulness

The Generation Y cohort is shown to be one of the most influenced generations, and are in constant contact with peers, and showcase their lives to the world (Stein, 2013). They have a close relationship with social networks (Nanji, 2017) and access social media daily, for a variety of reasons (Tingley, 2015:1). This study aimed to assess whether Generation Y students perceived social media as useful, as they make frequent use of it. Moreover, it was deemed important to clarify whether the usefulness of social media contributed to the conscious or subconscious process when they follow brands on social media. Thus, it was proposed that the fact that social media is a useful tool, contributed to Generation Y students using it. This hypothesis would provide evidence for organisations using social media networks that are deemed more useful by the Generation Y cohort.

3.4.3.5   Summary of perceived usefulness

Perceived usefulness essentially focusses on whether a "thing" that is used by an individual, is useful to them. In the context of a structural equation model, it can then be ascertained whether usefulness fits into the broader scheme. Thus, does usefulness play a role in whether it is used

or not. Perceived usefulness is only one of the independent variables, as this study hypothesises that there are several factors that play a role in whether Generation Y students intend to be involved. Anticipated benefits is another independent variable, which is discussed next.

3.4.4   Anticipated benefits

Brands that seek to form relational bonds with customers design programmes that benefit the customer, wherein the customer see the reward and benefit to the relationship and then forms a bond. However, this is only true when customers see the benefit of joining in a programme. Thus, it is imperative that customers be able to see the reward and benefits of joining a programme for them to form a relational bond (Ashley *et al.*, 2011:751). Benefits are both subjective and psychological, which means that customers must first weigh whether the benefits of joining a programme or contributing to a brand and its bottom line, is worth it. Furthermore, there is always risk involved, which means that customers must weigh anticipated risk versus anticipated benefits, to ascertain whether joining is worth their while (Shaffer *et al.*, 2006:445). Thus, the rewards must outweigh the risks contributed to taking part in a programme.

3.4.4.1   Importance of anticipated benefits

Research shows that consumers weigh the effects of their behaviour in terms of anticipated benefits. Thus, they would commit to behaviour when the benefits outweigh the costs (Laux, 2000:425). It is important for brands to keep this in mind, and thus focus on providing experiences over simply providing products. These experiences are increasingly important as information technology permeates every facet of life, brands are becoming larger and more important, in some circumstances, and communication and entertainment have become a focus in many aspects of life (Clark, 2015; Schmitt, 1999:54-55). As such, there are several benefits that the consumer wants to see in using social media, such as promotions, they want to be heard, they want assistance, and they want to be on the forefront of knowing what a company is doing. These are important factors and should be used by brands to further their relationship with customers, by having them feel as though they are a part of something (Tsimonies & Dimitriadis, 2014:334-335).

The benefits which an individual wants or feels they should have, are highly subjective, however, and are not static nor dichotomous. Therefore, an individual may want a certain benefit today, but may doubt benefits the next day, or doubt future benefits. Furthermore, benefits are not simply good or bad, they are more nuanced, as is the relationship that an individual has with a brand. Thus, a multifaceted model, which measures several different behaviourisms is crucial when measuring any facet of an individual's relationship with a brand (Walter *et al.*, 2003:160; Naude & Buttle, 2000:351-352). Anticipated benefits will thus vary from individual to individual, which

means that it can be difficult to know exactly which benefits they want. However, where social media is concerned, it may pay to simply ask individuals what they want from the brand and from their social media pages, and simply apply it in order of importance (Meekma, 2017).

3.4.4.2 The interrelationship of anticipated benefits to other factors

Ashley *et al.* (2011:753) investigate anticipated benefits in whether individuals find it useful to commit to a company, whether the benefits the company offers are enough, and whether the relationship with the company will be beneficial. Thus, does the consumer believes that they will receive any benefit in taking part in the company or brand's activities, be it services, products, relational, or communicative. Tsimonis and Dimitriadis (2013:328) added that competitions may play an important role in whether individuals are attracted by an organisation's marketing efforts. Anticipated benefits are coupled with several other factors to form a coherent picture of where it may lead. It is also an independent variable for commitment and dependence (Ashley *et al.*, 2011:750). The context of this study investigated the constructed factor, anticipated benefits.

3.4.4.3 Anticipated benefits in context

In this study, anticipated benefits were used as an independent variable to measure advocacy intention. This was to ascertain whether the user saw benefits to using social media aspects, and whether these benefits translated into a commitment to the brand's social media pages and whether they became loyal to the SMP and advocated it.

Benefits have shown itself to be an important predictor in whether the individual shows an interest in certain social media pages. This may not be the case for all brands; however, for this study, it was tested to ascertain what effect it would have on Generation Y students becoming involved with the brand's social media pages. This was because benefits are universal in that customers want certain benefits in using a product or service; however, it is important to find out what those benefits are (Charles, 2016). When the organisation is aware of the benefits sought, they can better position their offerings for the perception of benefits to meet expectation, thus resulting in more loyal customers (Collomb, 2018). What the customer needs should, therefore, be the starting point to many plans, to focus the target market and to enhance the viability of the plan (Berry, 2013). Therefore, for this study, special offers, competitions, and benefits, in general, were used to form the factor anticipated benefits as benefits and competitions play an important role in social media strategies (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011). With the Generation Y cohort, the lines of marketing are somewhat blurred as in some cases, they tend to look for intangible benefits such as community and sustainability, which is why it is important for brands

to acknowledge this phenomenon, and research which benefits the Generation Y cohort consumers want from them specifically (Pasquarelli, 2017).

3.4.4.4 Generation Y cohort and anticipated benefits

The Generation Y cohort may show loyalty to certain brands, but to others, they have no preference. Where smartphones are concerned, the Generation Y cohort are very brand loyal (Smith, 2015); however, regarding private or brand labels, they prefer benefits and value, over a specific brand (Pasquarelli, 2017). In some instances, it helps to create a need, which then also creates a benefit, where the Generation Y cohort may not have noticed it before. Thus, brands should create unique selling points, which show benefits that the Generation Y cohort may not have considered from a brand whose marketing and products or services are more generically aimed (Gibson, 2015).

3.4.4.5 Summary of anticipated benefits

In anticipated benefits, the "anticipated" part should not be understated in the programmes such as competitions that organisations provide. Individuals tend to have an expectation of a product, service, or brand, which should be met where viable. Thus, organisations should ascertain what is needed, and provide what is needed. It should be noted that there are other needed support services that are required by organisations as well. These are discussed next as brand activities.

3.4.5 Brand activities

Brand activities is a collection of items from verified studies. Firstly, it encompasses brand strategies, and brand activities, which aim to examine why organisations create brand pages, which policies and strategies they follow, how they use them, and what their goals are with these brand pages (Tsimonis & Dimitriadis, 2013:328). Next, brand activities also focus on anticipated benefits, which are important to maintain relationships and attract customers. If customers do not see the benefits that the organisation tries to relay, the customers will be less likely to participate in these programmes (Ashley *et al.*, 2011:751).

3.4.5.1 Importance of brand activities

As brand activities can vary, it is important to set guidelines for brand communication when specific types of services are developed. This way, a more customer-centric approach can be garnered, and customer-brand engagement can be encouraged (Solem & Pederson, 2016:446). Brand engagement can lead to co-development, which has formed a significant part in the change from company-centric value creation towards customer-centric value creation. Thus, when brands focus on activities that will have customers partake in their brand, join-value is realised, and

customers will partake in customer to customer interaction, which is of great benefit to the brand itself (Greve, 2016:2111).

Activities are important as customers have come to expect it from brands on social media. Thus, having a strong social media presence, and responding to problems with immediacy, helps customers feel more positive towards the brand, and builds loyalty towards that brand. Furthermore, as most brands have a presence on social media, a brand which does not make use of it will alienate customers (DePhillips, 2010).

When activities are considered, the brand should remember to set goals, to get to know their audience and know what they expect, and then measure the outcomes of their activities. Furthermore, they should measure the best times to post information or news about the brand, to gain maximum awareness of their posts (Mallia, 2018). Due to customers' perception regarding certain service types as complex, uncertain, or to have a risk related to using it, brand activities are an important factor. More specifically, communication should be developed, and engagement encouraged. This can be conducted through communication strategies and planning (Solem & Pedersen, 2016:446).

3.4.5.2   The interrelationship of brand activities to other factors

It has been shown that individuals who are satisfied with the social media activities of a brand, are more likely to engage in pages, word of mouth, and have increased purchase intention. However, the study also showed that individuals who are not satisfied with social media pages, tend to decrease word of mouth and become annoyed (Hutter *et al.*, 2013:342).

The authors used four empirical constructs in the study, suggesting that having activities on social media are important, including, but not limited to, competitions, communication with users, and feedback. However, it is important for companies who want to use social media to first research which activities are right for their brand so that it fits in with their online and offline marketing strategies and activities (Tsimonis & Dimitriadis, 2013:336-337). As activities form part of relationship marketing and are intended to create mutual economic value for the brand and the customer, the intention for these activities is for them to be collaborative. Therefore, the brand's intention is for the customers to take part, share, and create, regarding their brand, content, and experiences (Ashley *et al.*, 2011:749-750).

3.4.5.3   Brand activities in context

Tsimonis and Dimitriadis (2013:334; 336) suggest that certain activities, engaged in by the brand, are important in relationship marketing and for brand activities. These include competitions,

dialogue, new product news, advice and useful information, and customer service. These were adapted, and only product news, advice and useful info, and dialogue were included. The Tsimonis and Dimitriadis (2013) study conducted did not focus on the quantitative aspects of brand activities, they merely set out to gain a better understanding of the way in which firms define their social media strategy. This study aimed to assess the importance of these activities to Generation Y students. This was done by setting brand activities as an independent variable, which was tested to ascertain what effect, if any, it has on Generation Y students' intention to be involved.

3.4.5.4 Generation Y cohort and brand activities

The Generation Y cohort generally falls into two categories regarding activities, namely consumption or contribution, thus there are those who contribute content and those who simply observe. In time, however, some consumers who only consume also become contributors, and become more active (Bolton *et al.*, 2013:248). The activities that the Generation Y cohort decide to partake in are influenced by peers, and what they do on social media. This shows that the Generation Y cohort can be influenced by social media, and exert influence on social media, which shows the importance in engaging with them on a level that draws them into taking part in activities (Levin & Lamar, 2017).

3.4.5.5 Summary of brand activities

Activities will vary across platforms and across organisations; however, several activities stand out, such as communication and rapid feedback. These activities are well-suited for social media, as a brand can easily and inexpensively fulfil these requirements. Brands do not only have to make use of employees, however, and can use other customers to act on their behalf, in certain instances. Brand community is discussed next to explain why it is important in contemporary marketing.

3.4.6 Brand community

A brand community is seen as a specialised group that is not bound by certain geography, but who are bound in social relation with other members of the community because of their admiration for the brand (Laroche *et al.*, 2013:77). These communities were created, in part, because of the difficulty to maintain one-on-one relationships with individuals, especially in the age of social media. Here, brand communities serve the purpose of sharing information, perpetuating culture and history of the brand, and aiding other individuals or consumers (Laroche *et al.*, 2012:1760).

3.4.6.1 Importance of brand community

Social networking sites have become a major focal point in the creation and development of brand communities (Laroche *et al.*, 2012:1756). The interactive nature of social media and other digital mediums have changed the landscape of communication and information exchange. It has evolved the market from a dialogue, into a trialogue, where not only organisations communicate with consumers, but consumers communicate with other consumers (Tsomonis & Dimitriadis, 2013:328-329). Brand communities have a profound effect on multiple relationship aspects. These effects include positive effects on customer/product, customer/brand, customer/organisation, and customer to customer relationships. These, in turn, have a positive effect on brand trust, which effects brand loyalty (Laroche *et al.*, 2013:76). Moreover, there are numerous reasons for individuals to join online communities. One such reason is the psychological need to feel connected to others and to feel a sense of belonging. Other reasons include conducting research, shopping, to make money, or simply to be entertained (Laroche *et al.*, 2012:77).

3.4.6.2 The interrelationship of brand community to other factors

Brand community is specialised, non-geographically bound community, based on a structured set of social relations among admirers of a brand (Laroche, 2010:77; Muniz & O'Guinn, 2001:412). There are many ways in which a brand can support and encourage brand communities, such as through social media, content communities, virtual worlds, blogs, social bookmarking sites, and forums. These enable individuals who like the brand, to share their experiences, and to interact with the brand itself (Erdogmus & Cicek, 2012:1355). Brand community focusses on the relationship between individuals and the brand, the relationships between individuals using the brand's community, and how this affects trust and loyalty towards the brand (Laroche, 2010:80).

It is important for brands to note that not all individuals who partake in a brand's community are "fans" or brand loyal. For this reason, brands should ensure that a critical mass of fans is drawn to the brand's community, to build it and enhance the engagement between individuals in the community. It is also an opportunity for the brand to engage with those who are not fans, and to convert them to a more loyal status (Anderson, 2005:286).

3.4.6.3 Brand community in context

The social media-based brand community consists of a group of internet-based applications, which allow for the creation and sharing of user-generated content (Laroche *et al.*, 2013). The study of Laroche *et al.* (2013) focussed on brand community as the independent variable from which the following mediators to brand trust, were used: Customer/product relationship,

customer/brand relationship, customer/company relationship, and customer/other relationship. Aforementioned mediators were in turn mediated by brand trust, to brand loyalty. The second study, Laroche *et al.* (2012), similarly used brand community as an independent variable, however, it used many more mediators than the first study. Commonly, brand trust, brand use, and brand loyalty were used. Both studies showed adequate reliability and validity levels, however, as their studies measured brand loyalty in both instances, only brand community was used in this study, as an independent variable. These two studies show a crucial aspect of this current study in that brand community as a precursor to brand trust effects brand loyalty, thus in turn brand advocacy.

3.4.6.4   Generation Y cohort and brand community

The Generation Y cohort has shown a need to be social, but also for there to be a balance between personal and social. Brand communities fit in neatly to this balance, and provides a constant link, without having to be constantly social (Halliday & Astafyeva, 2014:9-10). Moreover, brand communities appear to give the Generation Y cohort a sense of belonging and group membership. Thus, finding others with similar interests, who can be interacted with, is a driver towards brand communities (Ruane, 2014:395-396).

3.4.6.5   Summary of brand community

The Generation Y cohort is an ideal demographic to assess in relation to brand community as they were born into technology, but also experienced a time before the internet became interactive enough to support brand communities. For this reason, they have both a perspective on a world with and without brand communities. Therefore, their choice is clearer in comparison to Generation Z, who would grow up with Web 2.0 and beyond embedded throughout. This view of brand community gives insight both into the social aspect of the Generation Y cohort, but also into the way that they experience brands as well. However, this research does not stand alone, and was measured in how it was mediated by intention to be involved, to brand trust; the former is discussed next.

3.4.7   Intention to be involved

Behavioural intention is an important factor for advertisers to note as it is an outcome of socialisation, which can show favourable and unfavourable behaviours towards a brand (Bush *et al.*, 2004:110). Involvement relies on external and internal motivations and is greatly dependent on how the benefits of becoming involved are perceived by the individual. Thus, obtaining utility and getting enjoyment from the organisation, determines whether they will become involved (Lin & Lu, 2011:1152-1153).

3.4.7.1 Importance of intention to be involved

Individuals react on a voluntary basis, which means that the causes of behaviour are rooted in intentions and motives. Thus, an effective attitude should lead to actual usage (Rauniar *et al.*, 2014:8). Moreover, individuals become involved with brands and tend to show less reluctance when the quality of the relationship is high (Hudson *et al.*, 2015:71). Thus, there is a path from intention to customer equity, which is an important focus for organisations. It is for this reason that organisations focus on value equity and brand equity, to reach maximum customer equity (Kim & Ko, 2012:1484). However, whether an individual will have intention is contingent on several factors, such as consumer traits, situational factors, the characteristics of the service or product, as well as previous experience and trust (Weisberg *et al.*, 2011:83).

3.4.7.2 The interrelationship of intention to be involved in other factors

Intention to be involved is an action-based construct which focusses on the benefits of relational tactics. Thus, it investigates the costs of engagement, as well as the value that the programme offers, to motivate action on the individual's part (Ashley *et al.*, 2011:750). It has been established that perceived ease of use and perceived usefulness are both important to predict users' attitudes towards using a system. However, perceived usefulness has been shown to have a 50 per cent stronger influence than perceived ease of use (Elkaseh *et al.*, 2016:193; Brown *et al.*, 2014:10). The following is based on the authors from which the construct was amalgamated.

According to Rauniar *et al.* (2014:9-10), intention is linked to behavioural and normative beliefs as well as their attitude towards the behaviour, as well as perceived usefulness, perceived ease of use and attitude towards. Ashley *et al.* (2011:750) go on to state that involvement and anticipated benefits are linked to satisfaction, and commitment, through the receptiveness that they exhibit.

According to Rauniar *et al.* (2014:10), intention focusses on the decision regarding whether to perform a behaviour, which is based off mental deliberation, conflict, and commitment, which may take a significant amount of time. Ashley *et al.* (2011:750) concur, stating that involvement studies the customer's willingness to participate in the brand's marketing endeavours, and will likely become involved when they perceive enough value from the offering. Rauniar *et al.* (2014:10-11) suggest that perceived usefulness is mediated by intention to use and that intention to use can then predict actual use. Ashley *et al.* (2011:750-751) vary in that they used involvement as an independent variable, which was mediated by relationship programme receptiveness, to dependence, and commitment to the firm. The aforementioned authors explained how other

factors fit into their respective studies. Next, the factor intention to be involved is discussed in context of this study.

3.4.7.3   intention to be involved in context

Intention signifies a plan; however, behind intention is the purpose behind what the individual wants to attain (Patel, 2017). This study uses intention to be involved as a mediator to brand trust, thus first focussing on loyalty, experience, benefits, etc., to ascertain purpose, which then leads to intent. After this intent, the study could assess whether trust, commitment, and advocacy would follow. Therefore, intention lays the foundation for the mediators that followed, and finally advocacy intention. As mentioned before, the questions used in this study were an amalgam of the questions used by Rauniar *et al.* (2014) and Ashley *et al.* (2011). These questions were changed, and questions added to better suit this study. Contrary to the aforementioned studies, however, this study gauged what happens after the intention, in order to ascertain the route to advocacy intention.

3.4.7.4   Generation Y cohort and intention to be involved

The Generation Y cohort's behaviours are varied in scope but have been shown to be affected by celebrities, for example. Sports celebrities are shown to be able to shift brand loyalties, as well as influence word of mouth by Generation Y individuals (Bush *et al.*, 2004:113). Furthermore, electronic word of mouth, online communities, and online advertisement prove to be effective to drive intention through social media platforms, where the Generation Y cohort is concerned (Balakrishnan *et al.*, 2014:176). There is a strong correlation between the Generation Y cohort's brand loyalty, their satisfaction and their relationship intention, which shows that their intentions are, as shown before, more nuanced, and should be investigated thoroughly to build a stable model regarding their wants and needs (Mostert *et al.*, 2016:28). In order to motivate the Generation Y cohort towards intention and finally behaviour, a brand must make a connection, must focus on the values which their target market has, must have its own unique and genuine personality, and must form part of a lifestyle (Nahai, 2013).

3.4.7.5   Summary of intention to be involved

Intention to be involved is deemed crucial in this study as it aims to show how many students will make actual use of social media to follow brands in the future. The Generation Y cohort is seen as the ideal generational candidates because of their frequent use of technology. Before advocacy can take place, however, it is hypothesised that trust must first be present and prevalent. Therefore, the next section explains the variable brand trust.

3.4.8   Brand trust

Brand trust is defined as the average consumer's willingness to rely on a brand to deliver what they promise to deliver (Chiou *et al.*, 2013:10). Trust is a crucial part of relationships, both in forming them, as well as maintaining them (Schiffman *et al.*, 2010:30). Trust is the extent to which the consumer believes that they will receive what is promised, and the relational value thereof is the perceived subjective cost versus benefit calculation made with regard to the maintenance of the relationship (Sahin *et al.*, 2011:1291). Simply put, it gauges how willing a consumer is to rely on a brand's ability to perform the function it promised to perform (Lee *et al.*, 2015:298).

3.4.8.1   Importance of brand trust

Brand trust is an important factor in online interaction with websites. Individuals, who trust a brand, would be more likely to have favourable perceptions, and make use of the website more often (Hinz, 2015; Ha, 2004:329-330). It has also been found that the social image of a brand has a positive influence on brand trust. This, ultimately, has a positive effect on brand equity and brand loyalty (Roets, 2013:vii). Usability, satisfaction, and brand trust flow together into brand loyalty, where the user finds trust and satisfaction in a brand when their products or services are useful. When there is trust, and they are satisfied, they tend to become loyal (Lee *et al.*, 2015:300).

3.4.8.2   The interrelationship of brand trust to other factors

According to Sahin *et al.* (2011:1289-1293), brand experience is a result of stimulations that lead to pleasurable outcomes. These brand experiences, when nett positive, can lead to brand trust. This trust is a mark of intangible trust-generating activity and can be a symbol of assurance and quality. Brand trust is largely based on brand experiences, and along with satisfaction, influences brand loyalty. Brakus *et al.* (2009:53-54), mostly concur, stating that brand trust, brand experience, and brand loyalty are important interrelated constructs.

Building trust is difficult in general and is fragile (Maday, 2018). However, trust also builds towards commitment, which is an important factor when dealing with customers, especially because of the variety of choice (Ercis *et al.*, 2012:1399-1400). Trustworthiness can stand out and help a brand differentiate itself from the competition (Carter, 2017).

Brand trust was taken from the study by Sahin *et al.* (2011:1291) in which they define brand trust as the confident beliefs of a consumer that they can rely on a seller to deliver what has been promised. Moreover, Sahin *et al.* (2011:1293) state that brand experience is mediated by brand trust, to brand loyalty. Thus, an individual must first experience the brand before they can trust it. The authors did have brand experience lead directly to brand loyalty, as well as being mediated

through brand trust. Thus, suggesting that in certain cases, the brand experience may lead an individual to brand loyalty, where in other cases they need to trust the brand first.

3.4.8.3   Brand trust in context

Brand trust focusses on whether the individual would rely on the ability of a brand to deliver on the promises made (Chaudhuri & Holbrook, 2001:82). Moreover, brand trust is firmly entrenched in past brand experiences, which then influences whether the customer would continue making use of a brand's product or service. This is entrenched in the relationship paradigm and plays a crucial and dynamic role in whether relationships will be successful (Ballester & Munuera-Aleman, 2005:187). In this study, brand trust acted as a mediator between intention to be involved and commitment. Thus, this study measured whether a customer's trust in a brand's social media page had input in whether they became committed and whether that made them become advocates to the brand and its social media pages.

This study hypothesised that intention to be involved is mediated by brand trust, to commitment. As such, the questions used by Sahin *et al.* (2011) were adapted for this study, to gauge the validity of the hypothesis. Engagement was added to the question itself in the questionnaire in order to group engagement and trust. Therefore, future studies could use brand trust as a dependent variable, which can also gauge engagement intention. This provided flexibility to the scale, as well as to the model. The Generation Y cohort tends to have variable levels of trust, in that they trust certain brands, but not others. They are varying in trust regarding privacy, and frequently trust that their data is secure and private (Landrum, 2017). In some ways, the Generation Y cohort can be anomalous regarding trust, which is further discussed in the next section.

3.4.8.4   Generation Y cohort and brand trust

The Generation Y cohort has shown themselves to be more difficult when it comes to gaining trust. They want brands to be sustainable and authentic, as they are a generation which wants the world to be a better place and show this need in the brands they support (Keller *et al.*, 2014). Furthermore, the Generation Y cohort is the most educated generation, but also struggle with low wages and in some cases, difficulty in finding new occupations. As such, their monetary situations are such that they must scrutinise corporations before they hand over their money. Thus, accompanied with the fact that they want brands to be socially responsible, and to stand for something, it is difficult for brands to gain trust and keep it (St. Louis, 2017).

3.4.8.5 Summary of brand trust

Trust has become a very important aspect of a business, and brands who gain the trust of their followers win loyalty among them. However, managing to get to that point of trust is difficult, especially under the Generation Y cohort. Moreover, if that trust is lost, it may be near impossible to get back. Thus, brands should work hard at building and maintaining trust, to reach a point where individuals are committed to the brand. Commitment is discussed next.

3.4.9 Commitment

Commitment has become a crucial component in business relationships, where the relationship is based on the long term, and where there is a lasting intention to maintain the relationship. Commitment is often used in conjunction with trust and satisfaction to gauge relationship quality (Walter *et al.*, 2003:160).

3.4.9.1 Importance of commitment

Commitment and loyalty are correlated in that both look at re-patronisation of a product or service in a repetitive manner (Sahin *et al.*, 2011:1291). Furthermore, committed customers see the relationship they have with the brand as beneficial, and the termination thereof yields lower benefits than maintaining it. However, to achieve the commitment sought by a brand, a certain level of trust must be achieved and maintained (Hennig-Thurau *et al.*, 2003:232). Commitment is further precipitated by satisfaction with a brand, and certain psychological factors, such as identification, are also required to achieve commitment (Casalo *et al.*, 2010:358).

For commitment to be successful, there should be socio-emotive attachments and cognitive beliefs to accompany with the behavioural ties. When these are combined, it conveys strength and durability to the relationship. These are important to note as there seemed to be a difference between new customers and repeating customers; where new customers gauged the experience based on calculative factors on performance, repeating customers based theirs on relational benefits (Hudson *et al.*, 2015:71).

3.4.9.2 The interrelationship of commitment to other factors

Commitment is often used alongside trust, relationship satisfaction, and relationship quality, which all fall under the category of customer focussed relational mediators. Relationship benefits, dependence on a seller, relationship investment, seller expertise, communication, and similarity are seen as first level dependents, which flow into the mediators' commitment, trust, relationship satisfaction, and relationship quality. Lastly, the independents and mediators flow into an expectation of continuity, word of mouth, and customer loyalty (Verma *et al.*, 2016:208).

Buyers are, in some circumstances, seen as calculating, which means that they calculate, based on economic rationale, whether the continuation of the relationship is in their best interest. Therefore, commitment may be a way for buyers to overcome psychic distance, and engage in activities with brands (Johnston *et al.*, 2012:46).

Badrinarayanan and Laverie (2013:60) state that commitment is an enduring proclivity to maintain a relationship that is valuable and is considered to be a key mediating variable in relational models. The authors hypothesised that interaction, expertise, and reciprocity were mediated by trust, to brand commitment. Brand commitment mediated trust to brand advocacy. Thus, trust could lead to commitment, which could lead to brand advocacy.

3.4.9.3 Commitment and effective relationship marketing through social media

Commitment is essentially the desire of a partner in a partnership, to maintain that relationship, as it has value to them (Mack, 2017). Therefore, commitment plays a central role in relationship marketing models, as it is a pledge of continuity (Wetzels *et al.*, 1998:406). The level of commitment plays an integral part, alongside trust, to assess the relationship quality between a customer and a brand (Abdullah *et al.*, 2013:372). This study followed the same pattern in that trust was hypothesised to be mediated by commitment, to advocacy. However, only questions for brand commitment were taken and adapted from Badrinarayanan and Laverie (2013:70) as questions for trust and advocacy intention were adapted from other studies in which the questions were more applicable. Trust was added to the commitment scale as trust have been shown to be closely correlated in other studies. Thus, future studies may only use commitment as a dependent variable, and in that way gauge both trust and commitment in the same dependent variable. This added both flexibility to the scale as well as the model. The Generation Y cohort has shown difficulty in trusting brands, and little research has been conducted regarding how commitment is driven by social media, among the Generation Y cohort (Radzi *et al.*, 2018:1981). The next section briefly investigates the relationship between the Generation Y cohort and commitment, which was investigated in this study.

3.4.9.4 Generation Y cohort and commitment

In general, the Generation Y cohort appears to be less committed than previous generations, because they tend to believe in wider possibilities (Berry, 2018). Moreover, it is a generation that has more choice than ever before, which creates an even more difficult paradigm in which switching is simply easy (Moore, 2017). Thus, to reach this commitment takes hard work from organisations, where they must first build trust, and then ensure to involve the Generation Y cohort

customers in their programmes. When the Generation Y cohort feels involved, they feel a part of something and are more likely to be committed (Nusair *et al.*, 2013:20).

3.4.9.5 Summary of commitment

Commitment is also important in contemporary business, as there are a wide variety of products available, especially in the smartphone sphere. Thus, businesses should work towards increasing commitment towards their business. However, where commitment fits into the advocacy sphere intention is not entirely known in the South African context. Therefore, the next section briefly investigates advocacy intention, which is the dependent variable of the study.

3.4.10 Advocacy intention

When individuals interact with a brand on social media, they develop an emotional attachment, which in turn leads to word of mouth. Thus, marketing communications, which lead to social media engagement, increase emotions towards the brand (Hudson *et al.*, 2015:74). However, for individuals to become loyal to an online service, is much more difficult than for offline services. Thus, when focussing on online services, brands must strive towards greater consumer satisfaction and trust. Furthermore, satisfaction, trust, service quality, and commitment are key to building relationships (Hsiao *et al.*, 2015:862).

3.4.10.1 Importance of advocacy intention

This relationship goes beyond loyalty and word of mouth, as with word of mouth, a consumer would spread good word about a company, product, or service. Where advocacy is concerned, customers are going above and beyond the requirements for loyalty (Fullerton, 2003:335-336). Thus, advocates take a personal stake in the brand, and their enthusiasm for it generates conversations. Brand advocacy is not something that can be bought, it is a genuine and deep connection that an individual feels for the brand, which has them saying positive things about the brand, and recommending the brand, well beyond simply word of mouth (Bowman, 2015). Brand advocates are important for several reasons namely, they increase brand awareness, fuel word of mouth, they make recommendations on social media, and have an extra attachment and brand loyalty (Beard, 2013).

With the focus shifting from what the consumer can do for the business, to what the business can do for the consumer, the goal has also changed. Companies, with forward thought and firm strategies in place, are focussed on the long-term goal of consumer advocacy. This advocacy can only come about when the company's goal is high quality and satisfactory services or products. These should be attained, even if temporary losses are incurred, as, in the long term, it

leads to consumer satisfaction and advocacy of the company (Copley, 2017, Bramley, 2017). Commitment to a company, based on past interactions is seen as a key component in driving individuals to a company on a recurring basis (Hsiao *et al.*, 2015:863). Thus, it is concluded that past experiences with brands could drive individuals towards using online mediums to engage with those brands (own assumption).

3.4.10.2 The interrelationship of advocacy intention to other factors

It is suggested that brand trust and commitment have a significant influence on whether an individual would advocate for a product or service. These are, in turn, affected by perceived value, perceived equity, and perceived quality (Ercis *et al.*, 2012:1399).

Lee *et al.*, (2010:570) viewed advocacy intention as the final step in the loyalty pyramid, showing it as word of mouth. Wallace *et al.* (2014:35) perceive it as trying new products from the brand, talking up the brand, accepting wrongdoing by the brand, and resisting negative information about the brand. However, the model used by Wallace *et al.* (2014:41) was not adopted apart from brand advocacy. Similarly, the model used by Lee *et al.*, (2010:584), despite being valid and reliable, was not used any further than adapting and using questions from their scale.

3.4.10.3 Advocacy intention in context

Brand advocacy is important to most organisations, especially now where the world is more connected than ever before. Brand advocates can reach unprecedented numbers of individuals across the world (Bowman, 2015). Advocates can also influence friends and family, thus providing a trusted source to those who are less familiar with a brand and its offerings (Kaulback, 2017). In theory, there are two types of influencers, namely uber influencers and peer influencers. Uber influencers are those who have a lot of influence in society, are wealthier and have vast followings on social media. Peer followers are those who seem similar to the everyday person, in relative terms. Peer influencers have shown to have a much larger effect on their peers (Hussain, 2016). Therefore, considering the possibilities that social media provide, the fact that peers can influence one another, and that a trusted source can influence their friends and family, brand advocacy should be a priority for organisations that want to grow and compete (Michalis, 2011). This study used advocacy to gauge Generation Y students' intention to advocate, which looked at whether they would recommend social media pages, use the social media pages, etc. Commitment was added to advocacy to add depth to the model and the scale. Future studies, which may use a version of this model could use the dependent variable commitment in conjunction with fewer of the independent variables and gauge both commitment and advocacy. Advocacy is difficult to attain among the Generation Y cohort, but there are lucrative rewards in that they are the

generation that uses social media the most and exert a great deal of influence on others (Case, 2015). The next section briefly examines the Generation Y cohort and advocacy.

3.4.10.4 Generation Y cohort and advocacy intention

Advocacy comes more naturally to the Generation Y cohort as they grew up with social media, which gives a voice to everyone. It is therefore important for organisations to make use of this and attempt to reach the stage in which this generation wants to advocate the brand (McCarthy, 2017). When the Generation Y cohort feels drawn into a certain cause or issue, the majority tend to speak out. This is useful for organisations who are prepared to go through the effort of building relationships and for those who also support certain causes (Jakubowitz, 2017).

3.4.10.5 Summary of advocacy intention

Advocacy is seen as the final step in the relationship, where the individual not only talks about a brand, and is not only resistant to the marketing efforts of other brands, but also defends the brand, and is likely to forgive a brand for mistakes. However, reaching advocacy is a difficult destination, and takes time, effort, and resources. Moreover, upon reaching advocacy, the brand must still work hard, retain quality, and involve customers. Ultimately, organisations that make the effort, reap the rewards.

3.5   CHAPTER 3 SUMMARY

This chapter reviewed the literature on factors that may influence effective relationship marketing by smartphone brands through social media amongst Generation Y students. It included the proposed model, a table of brief definitions regarding the factors, and lastly a more detailed explanation of each of the factors used.

Social media plays a large role in the hearts and minds of all generations, but no other generation has been so affected by the rise of social media than the Generation Y cohort. They have embraced social media and has become a generation willing to share most intimate thoughts and feelings regarding brands and have even proven themselves to be loyal contributors. They have also shown a deep love for smartphones and use smartphones for many hours per day. Some brands have enjoyed a higher level of loyalty than others, something that brands have strived towards for years. This study saw fit to marry these two concepts, smartphone brands and social media to propose a model that may explain why they commit themselves to a smartphone brand's social media pages, as well as the reason for advocating and being loyal to smartphone brands' social media pages. Armed with this knowledge, smartphone brands could possibly form a

method of enhancing customer relationships and increase advocacy, which in turn could lead to higher numbers of social media followers, which has been shown to convert into more sales.

This chapter set out to discuss each of the factors in the model used, and to show where they fit into the model, as well as what their importance is and their connections to the Generation Y cohort. The next chapter focusses on the theory behind the data analyses to be used in Chapter 5. The methodology is discussed in full, from data collection through to structural equation modeling and the two independent-samples t-test. Chapter 5 shows the outcome of the analyses and provide brief explanations for the acquired data to form a holistic picture regarding the empirical objectives.

CHAPTER 4 METHODOLOGY

4.1 INTRODUCTION

The previous chapter investigated secondary research regarding branding, smartphones, and social media. This chapter will explain the research and methodology that was used in testing the model put forth to support the theoretical data.

Marketing research is a process in which data regarding a specific phenomenon is collected through a scientific process (Zikmund & Babin, 2013:6). Thus, it is a process that is methodical and objective and serves to illuminate complications and opportunities (Cant *et al.*, 2005:3). Information obtained through marketing research can be used to solve marketing-related problems because the data obtained serve as a method of evaluating marketing efforts, actions, and decisions (Stewart, 2014).

The main objective of this study is to test a model of the factors that influence successful relationship marketing by smartphone brands through social media amongst Generation Y students. This goal was first achieved through research in the literature review (as per Section 1.3.2). Following the primary objective and the literature gathered, the proposed model was supported by the empirical objectives (as per Section 1.3.3).

Chapter 4 addresses the theoretical design of the research and methodology used in this study, which will be laid out by a series of interlinking topics: research paradigm (Section 4.2), marketing research process (Section 4.3), and research design (Section 4.4) will be discussed; followed by sampling procedure (Section 4.5) and data collection method (Section 4.6). Data preparation will be discussed in Section 4.7, followed by statistical analysis (Section 4.8). Thereafter, the factor analysis portion will be explained (Section 4.9), followed by confirmatory factor analysis (Section 4.10). Lastly, structural equation modelling will be discussed in Section 4.11. The research paradigm is discussed next.

4.2 RESEARCH PARADIGM

A research paradigm is described as a lens through which the researcher sees the world (Kivunja & Kuyini, 2017:26). It can also be the common beliefs and agreements shared between researchers regarding how problems should be addressed (Patel, 2016). Chilisa and Kawulich (2009:1) concur by stating that a paradigm is either a particular way of thinking shared by a community of researchers, or the beliefs, values, and methods, shared across a discipline. Paradigms are viewed through six characteristics, namely, ontology, epistemology, theoretical perspectives, methodology, methods, and sources (Patel, 2016).

Ontology refers to the nature of reality, and it is suggested that the researcher ask questions such as: "What is the nature of reality?"; "What is the nature of the situation being studied?" Questions, such as the aforementioned, help the researcher to conceptualise the nature of reality, and what is believed to be known about reality (Kivunja & Kuyini, 2017:27). Epistemology refers to how a researcher would examine and become informed regarding that reality (Viljoen, 2016). Epistemology, being the theory of knowledge, assesses the assumptions and beliefs that the researcher holds regarding the very nature of knowledge. Thus, the researcher must ask: "How do we know the world?"; "What is the relationship between the inquirer and the known?" (Johnson, 2008). The theoretical perspectives will contribute to research questions and will determine the researcher's choice in methodology (Osborne, 2016:90). Methodology refers to how the researcher accesses and reports on what is learned about reality (Viljoen, 2016). Moreover, it reflects on the 'how' in finding knowledge regarding the research topic at hand. It is therefore a strategic approach (US, 2006). Method refers to research methods in which, for example, questionnaires or interviews are used (Osborne, 2016:90).

Regarding the qualitative and quantitative study, it is suggested that the researcher assesses the paradigms of positivism and post-positivism (Blumberg *et al.*, 2011:16; Lincoln *et al.*, 2011:117; Muijs, 2011:3-5). Post-positivism contains in it two sub-paradigms, which are interpretivism and critical theory. Realism, on the other hand, is seen as narrowing the gap between positivism and post-positivism (Vosloo, 2014:301; Perri 6 & Bellamy, 2012:60; Blumberg *et al.*, 2011:18).

Positivism asserts that the world can be studied through the lens of science and scientific evidence. However, this theory holds that humans are rational beings that can be scientifically quantified through the natural sciences (Crossman, 2018). Post-positivism, on the other hand, suggests that an understanding is not always to be gained from a quantitative assessment. Thus, this theory makes provision for the fact that people differ and that there are multiple perspectives and disciplines which can be used to explain behaviour (Gratton & Jones, 2010:26-27; Creswell, 2009:7). Lastly, realism states that there are macro-factors outside of human control which play a part in the subjective beliefs and behaviour that people might exhibit (Saunders *et al.*, 2009:114).

This study made use of quantitative measures, using self-administered questionnaires, to ensure that the data was not affected by researcher bias. Furthermore, statistics were used to adhere to both the positivistic and post-positivistic nature of data and people. Moreover, realism was also accepted, as this study will show recommendations and shortcomings in Chapter 6. Certain aspects are, according to realism, difficult to measure because of macro-factors. Although these macro-factors were not speculated on, this study considers the fact that there are macro-factors which might be influencing respondents. Next, the marketing research process is discussed.

4.3   MARKETING RESEARCH PROCESS

The marketing research process is defined as a set of phases through which marketing data are collected (Business Dictionary, 2016). As such, marketing research is a necessary and useful tool which can help in strategic decision-making (Burnett, 2015). The method in which this process is performed may vary as every research problem and every process will be unique (Cant *et al.*, 2007:158). The type of process used is at the discretion of the researcher, depending on the desired outcome (Tomasetti, 2018; Whitsett, 2015; Smith, 2012).

This study will make use of Malhotra's (2010:41-42) approach, which proposes a six-stage model, presented in Figure 4-1. Malhotra's six-stage model is used due to his extensive work in market research, numerous journal papers published, and election as a marketing legend for his publications (Georgia Tech, 2018).
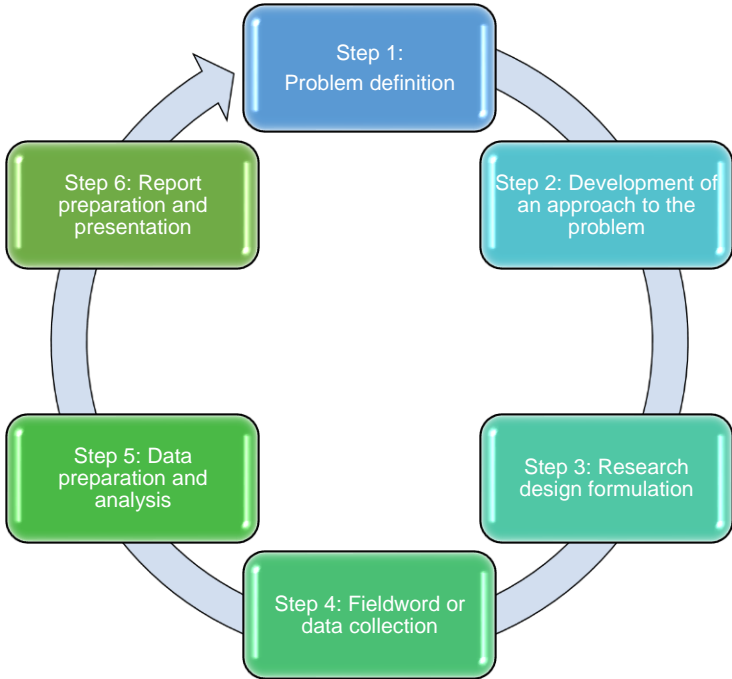
Figure 4-1:   Research process (Malhotra, 2010:41-42)

As seen in Figure 4-1, the six-step process encompasses the path to follow in researching a presented problem. The first step in this process is to define the problem at hand, known as the problem statement (Section 1.2). Secondly, an approach to the problem should be developed (Section 1.3). Thirdly, a research design should be formulated, as is done in Section 1.5. Fourthly, data collection should be conducted through fieldwork, which is explained in Section 4.6. Fifthly, the data should be prepared (Section 4.7) and then thoroughly analysed (Chapter 5). Lastly, the report should be prepared, and the data presented (Chapter 5 and Chapter 6).

The problem identified in Chapter 1 of this study focused on the increase in the necessity for organisations to make use of social media platforms in order to enhance their relationships with customers. This was due to the high loyalty rate that companies such as Apple and Samsung enjoyed, as well as the dramatic increase in competition over the years. Therefore, the lack of literature, especially in the South African context, was a precursor to the model as put forth in Section 1.4. Following the primary problem, one primary objective, four theoretical objectives, and fifteen empirical objectives were formulated. The following section focusses on the research design that is followed to achieve the empirical objectives of this study.

4.4   RESEARCH DESIGN

A research design is an outline for a research project. It is used to gather and examine data in a guided and succinct manner (Wiid & Diggines, 2009:54). Two types of research designs are suggested: exploratory research, which focusses on qualitative data; and conclusive research, which focusses on quantitative data. Descriptive research and causal research are subsets of conclusive research design (Malhotra, 2010:103). Figure 4-2 illustrates the types of research designs.
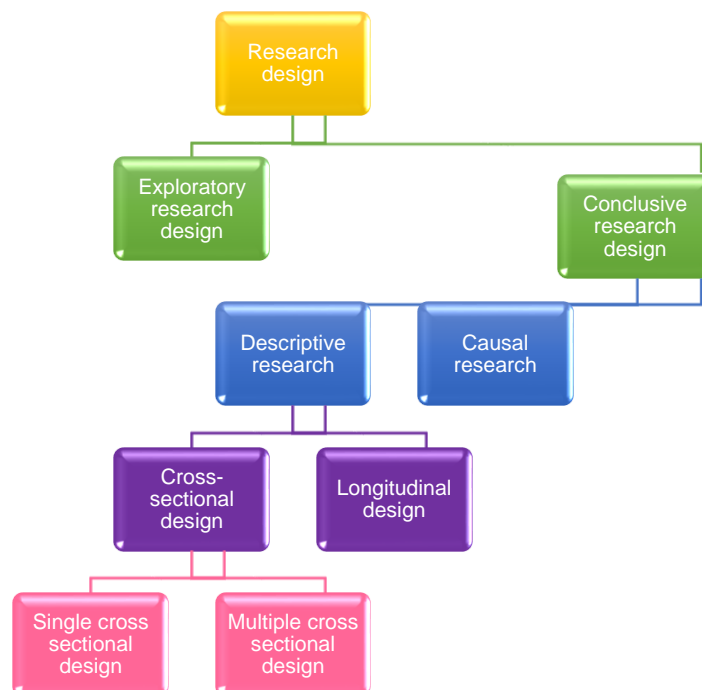
Figure 4-2:   Research design (Beri, 2013:74; Chawla & Sondhi, 2011:50; Malhotra, 2010:103)

Figure 4-2 shows the research design option available to the researcher. As this research was conclusive, descriptive research, Figure 4-2 only illustrates descriptive research. The research design will be discussed next, starting with a brief overview of exploratory research.

4.4.1 Exploratory research

Exploratory research is used to examine a given situation and to identify whether further research on that specific problem is required (Neelankavil, 2007:104). This helps the researcher to define the problem more accurately and to achieve a greater understanding of the problem at hand (McDaniel & Gates, 2010:43). Exploratory research necessitates that the researcher is in the field to open the road to discovery. In this way, the topic becomes a concept, which then leads to building successful theories (Stebbins, 2001:vi). Generally, exploratory research is conducted when the researcher has limited knowledge about an issue or the components thereof. To this end, the researcher will typically conduct an exploratory study, as swiftly as possible, to gain insight on the phenomenon being investigated (Mcnabb, 2010:96). It should be noted, however, that exploratory research focusses primarily on qualitative research approaches which include focus groups, interviews, and observation (Kent, 2007:17).

4.4.2 Conclusive research

Conclusive research is used to generate findings that are useful in drawing conclusions, which help in decision-making (Jiang, 2014:137). Conclusive research approaches are often used to test relationships which are evident from the hypotheses made (Nargundkar, 2008:39). Generally, conclusive research is sub-divided into two categories, namely, causal research and descriptive (statistical) research (UG,2015).

4.4.2.1 Causal research

Causal research aims to identify cause and effect by studying changes to dependent variables according to changes in the independent variables (Zikmund & Babin, 2006:69). This is usually achieved in a concise manner where the operations are based on a set of controlled procedures (Silver *et al.*, 2013:76). This type of research is often conducted using experimental designs to make inferences with a high degree of certainty. These experiments ultimately consist of manipulating a variable to test the effect thereof on a dependent variable (Salazar *et al.*, 2015:116). Causal research can be conducted by using qualitative and quantitative methods. Quantitative methods are more common, even though there are potential applications for qualitative causal research (McEwan, 2014:87).

4.4.2.2 Descriptive research

Descriptive research uses scientific methods to collect raw data which are used to explain attitude, intention, and preference regarding a specific phenomenon (Shui *et al.,* 2009:62). Therefore, descriptive research is used to explain phenomena and perceptions, not the factors which cause

them (Bradley, 2010:510). Commonly, this type of research is conclusive and requires large samples, planning, and structured designs (Malhotra, 2010:106). There are two types of descriptive research, namely, cross-sectional design and longitudinal design (Chawla & Sodhi, 2011:50).

Cross-sectional designs are used for descriptions at a specific point in time (Setia, 2016). They are best employed to explore consumer behaviour, intentions, interest, feelings towards, and attitudes towards (Lohrey, 2017; De Vaus, 2004:194). Contrary to cross-sectional designs, which focus on a single time period, longitudinal research focusses on two or more time periods (Apel, 2017). This enables the longitudinal design to measure change and offer explanations for that change (Feinberg *et al.*, 2013:61; Menard, 2008:3).

To accomplish the formulated primary objective, this study made use of descriptive research using a single cross-sectional design. Single cross-sectional designs can prove or disprove assumptions, are cost effective and time efficient, can capture data as a snapshot in time, can be used with multiple variables, and the outcomes can be used to further existing theories (Rivers, 2016). The next section focusses on the sampling procedure.

4.5 SAMPLING PROCEDURE

The sampling procedure is a technique used to choose a frame from the population to participate in the study. The process also involves selecting a precise number of respondents and is conducted in such a way that the individuals who respond can be used to base generalisations on, in order to draw conclusions about the population at large (Wanjohi, 2012). There are several reasons to conduct sampling rather than a census: it is more cost effective, it saves time, information can be more in-depth, less total error, it is more practical, and more secure (Wrenn *et al.*, 2007:176-177). This section will discuss the target population, sampling frame, sampling methods, and the sample size to be utilised in this study.

4.5.1 Target population

The target population, or theoretical population, is the complete group of individuals who hold interest for a researcher (Explorable, 2009). Thus, the target population consists of those whom the researcher wants to base generalisations on (Malhotra, 2010:372). The sample or group should be representative of the target population for the generalisations to be accurate (Swanepoel *et al.*, 2006:13).

The target population relevant to this study were full-time Generation Y students, aged between 18 and 24, registered at South African HEIs during the year of 2017.

4.5.2 Sampling frame

The sampling frame consists of the elements from which a sample selection will be made (Babbie, 2013:216). Therefore, the sampling frame is the data used to find the elements for each sampling unit. These units could be registers, regions, or anything that provides access to the individual elements that hold the data to make generalisations from. Using a sampling frame is an effective method of obtaining data and is more cost effective, time efficient, and less invasive than investigating the entirety of the target population (Schofield, 2006:29).

The sampling frame consisted of 26 registered South African public HEIs (Higher Education Institutions). From the sampling frame, a judgement sample of three HEI campuses located in Gauteng Province was selected; one a traditional university (HEI A), one comprehensive university (HEI B), and one university of technology (HEI C). The reasoning behind choosing Gauteng Province as the main sample for this study was that it encompassed the largest share of the South African population (StatsSA, 2017). Moreover, Gauteng Province was seen as South Africa's economic powerhouse, as it contributed to 34 per cent of the national economy and seven per cent of the GDP of the entire African continent. It achieved all of this with only 1.4 per cent of South Africa's land area (Alexander, 2017).

4.5.3 Sampling method

The sampling method is a method used to select members from the population to be sampled (Stattrek, 2016). The items selected from the population are used to base conclusions on (Jain & Ohri, 2009:46). As seen in Figure 4-3, there are two types of sampling methods: probability sampling and non-probability sampling (Marlow, 2010:140).
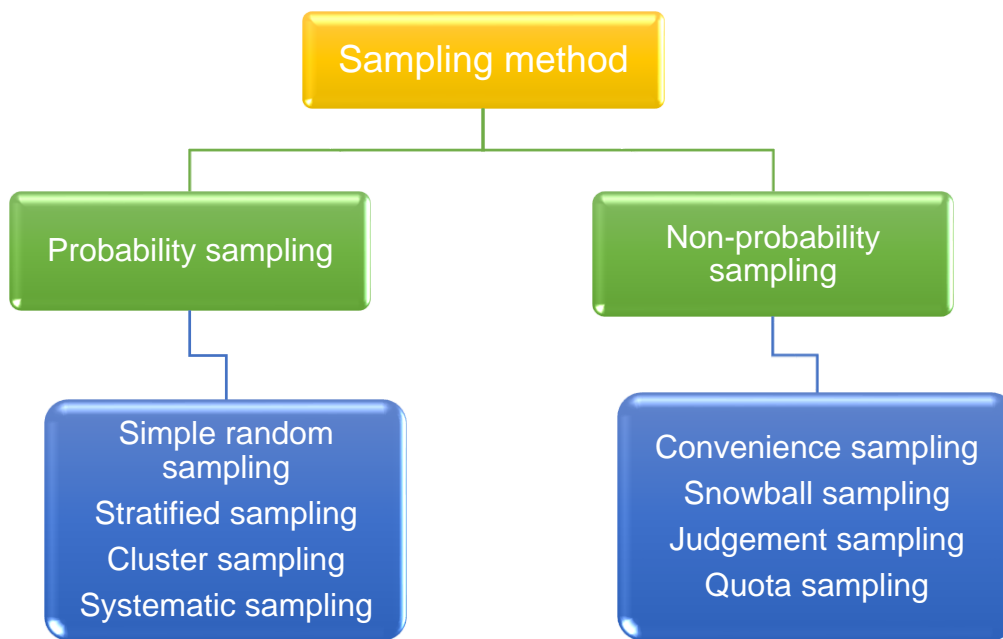
Figure 4-3: **Sampling methods (Berndt & Petzer, 2011:174; Marlow, 2010:140)**

The main difference between probability and non-probability sampling is that the former uses one of the variations of random selection. This random selection gives the elements in the target population an equal probability of being included in the tested sample. Non-probability sampling, on the other hand, does not use objective random selection (Trochim, 2006). Table 4-1 highlights some of the main differences between probability and non-probability sampling.

Table 4-1: **Comparison chart for probability and non-probability sampling (Surbhi, 2016)**

Basis for comparison	Probability sampling	Non-probability sampling
Meaning	Equal opportunity to be selected as a representative sample	Unknown which individual will be chosen to be represented in the sample
Alternatively known as	Random sampling	Non-random sampling
Basis for selection	Randomly	Arbitrarily
Opportunity for selection	Fixed and known	Not specified and unknown
Research	Conclusive	Exploratory
Result	Unbiased	Biased
Method	Objective	Subjective
Inferences	Statistical	Analytical
Hypothesis	Tested	Generated

There are stark differences in probability compared to non-probability sampling. The next section will examine both, before stating which method is used.

4.5.3.1 Probability sampling

Probability sampling occurs when elements are randomly selected from the sampling frame where each of the elements has the same, non-zero, known chance of being selected (Daniel, 2012:66, Visser *et al.*, 2000:230). There are four types of probability sampling: simple random, stratified, cluster, and systematic sampling (Berndt & Petzer, 2011:174).

In simple random sampling, a program or table is used to allocate a certain designation to every member of the sampling frame. Every element then has the same chance of being chosen in the selection process (StatisticsHowTo, 2016). This method is most often used for smaller samples, as it becomes prohibitive when dealing with large numbers of elements (Albright *et al.*, 2009:390). Stratified sampling involves breaking up the population into smaller, mutually exclusive subgroups from which a simple random sample is then selected (Crossman, 2018; Wrenn *et al.*, 2007:35). In cluster sampling, the researcher uses clusters which consist of a collective type of unity which has multiple elements (Sarstedt & Mooi, 2014:41). These elements include schools, churches, universities, and households. Whichever is chosen is randomly selected and consists of clusters as opposed to individuals. Cluster sampling requires sample sizes which are larger than that of simple random sampling or stratified sampling (Johnson & Christensen, 2014:261). In systematic sampling, a random sample is chosen to begin with and then every nth element is chosen from thereon (Sarstedt & Mooi, 2014:41). This method uses a sampling interval and sampling ratio with a random start to ensure that human bias does not influence the research (Babbie, 2008:224).

4.5.3.2 Non-probability sampling

In non-probability sampling, the researcher uses non-random methods to choose the sample. Thus, every element in the frame does not have the same, non-zero chance of being included in the study, which means that the sample is generally less representative than in probability sampling (Polit & Beck, 2010:309). However, non-probability sampling does pose certain advantages over probability sampling. Often, there is no specific sample frame such as a list of university students, for example, available to the researcher to conduct random sampling on. Also, non-probability sampling is generally more cost effective, which means that it has a higher chance of being greenlit. Furthermore, it is more time efficient and can be completed in a short time frame (Shantikumar, 2018; Tres, 2017). There are four main types of non-probability (non-random) sampling methods that can be used: convenience, snowball, judgement, and quota (Daniel, 2012:81).

In convenience sampling, the researcher mainly makes use of respondents who are easily accessible (Polit & Beck, 2010:309). Snowball sampling entails the researcher finding respondents to collect data from and after they have completed their part, they are asked to provide names of others who might want to partake in the study (Sarstedt & Mooi, 2014:42). This method can be very cost-effective and can help the researcher locate respondents when they are sparse (Black, 2010:226). In judgement sampling, the purpose of the study is used as a basis for selecting respondents based on the knowledge that the researcher has of the population and the elements that represent it (Babbie, 2008:207). The researcher then selects those from the frame whom they deem would ensure that the research data is representative (Foley, 2018; McMurray *et al.*, 2004:84). In quota sampling, the researcher divides the population into different subgroups (age, gender, occupation, etc.) and then select a judgement quota from each of the subgroups. This method is used to make the data more representative; however, it necessitates that the researcher has prior knowledge of the population and its characteristics (Wrenn *et al.*, 2007:185).

Due to the nature of this study, it was deemed most feasible to use non-probability, convenience sampling. This was conducted using Generation Y students, aged between 18 and 24, from three registered South African HEI campuses located in Gauteng Province. The theory used for the Generation Y cohort would allow for students from ages 13 to 31. However, those under the age of 18 and over the age of 24 were not considered. The questionnaire made use of demographic data, which collected information regarding country and province of origin, gender, ethnic group, language, and age to gauge the representativeness of the questionnaire. The next section discusses the sample size.

4.5.4 Sample size

The sample size is the number of elements which are included in the research study. High numbers of elements tend to increase precision in estimating the properties of the population (Explorable, 2009). There are several factors which contribute to the sample size determination, among which are the characteristics of the population, cost and time constraints, and the accuracy and reliability needed for the study (McDaniel & Gates, 2013:301). Furthermore, similar studies and/or the number of construct-related items will also be a factor in determining the sample size of the study (Malhotra, 2010:374). The minimum number of respondents to be used in a covariance-based structural equation model is 200. However, reliable observations are more likely to occur when there is a 10:1 ratio of cases to free parameters (Wolf, 2013:914; 918) In addition, when using structural equation modelling, sample size is determined by the number of constructs in the model. When seven or more constructs are used, the sample size should be between 300 and 500 (Hair *et al.*, 2010:662). Larger sample sizes are more representative and

decrease sampling error; however, at a certain stage returns will become diminished (Datallo, 2008:7).

A sample size of 600 full-time Generation Y students was deemed satisfactory for this study, based on the 10:1 ratio of approximately 10 respondents per question. There were 60 questions in the questionnaire. The sample size of 600 full-time, undergraduate students were set to accommodate the possibility of questionnaires being discarded if they were found to be unviable. Furthermore, as the study made use of convenience sampling, it was assumed that there would not be equal representation from all the campuses (Explorable, 2012); hence a minimum of 140 participants per campus was decided on. The next section focusses on the data collection methods.

4.6   DATA COLLECTION METHODS

A data collection method is a structured and detailed way of getting data that are needed for a study (Grove *et al.*, 2014:47). The data collection method is a crucial factor in the overall accuracy of the study as poor-quality data leads to inferior analyses (Wegner, 2008:18). Some of the main methods of data collection are experimental design, observation methods, interviews, focus groups, and surveys (questionnaires) (Jha, 2017; Armstrong & Taylor, 2014:576).

Experimental design is used to see what changes there are to variables when deliberate changes have been made to independent variables. This is conducted by plotting the details of the design in advance to obtain the maximum amount of data from the experiment (NIST, 2012). In observation methods, the researcher introduces an independent variable to the study, after which the participants in the study interact with the variable. The participants' behaviour is documented with regards to the variable (Hinkelmann & Kempthorne, 2007:3). Interviews are an in-depth procedure in which the person of interest is asked questions; this interaction is often audiotaped. Afterwards, the audio is transcribed and studied to gain knowledge regarding the subject matter (Polit & Beck, 2010:28). A focus group (also called a discussion group) consists of eight to ten participants, led by a moderator who encourages discussion regarding a product or product category (Jansen van Rensburg, 2014:28). The survey method is used to gather data by posing certain questions to selected respondents (RM, 2012).

When gathering quantitative data using a descriptive research approach, the study generally uses the survey method to achieve its objectives (Boeren, 2014:417; Chisnall, 1992:27). Most often, a questionnaire is used to do the survey (MSR, 2011). Questionnaires are questions presented in a structured manner and have a set of pre-determined answers to choose from (Fluidsurveys,

2014). There are two types of questionnaires: self-administered and interviewer-administered (Brace, 2008:2).

The type of questionnaire used depends on multiple factors such as the characteristics of those responding, the importance of reaching individuals to respond, the importance of uncontaminated answers, the sample size being used, the types of questions, and the number of questions in the questionnaire (Mora, 2016; Saunders *et al.*, 2003:282). Self-administered questionnaires are filled in by the respondents themselves, without external help (Polit & Beck, 2010:293-294). These types of questionnaires can be found in the mail, on the internet, restaurant tables, and in magazines. They are advantageous in that they can be sent to many people and allow for anonymity, which means answers may be more honest (Mitchell & Jolley, 2010:263). The interviewer-administered questionnaire is conducted by an interviewer either on the telephone or face to face (Tsakos *et al.*, 2008:2; Dumke, 2002:62). This poses certain advantages such as the interviewer being able to discuss questions with the interviewee, which also means that more complex questions can be addressed. Moreover, the interviewer can ensure that the respondent completes all the questions on the questionnaire which avoids having incomplete questionnaires (MacDonald, 2012:175).

This study made use of the survey method, using self-administered questionnaires. Inherent to questionnaires are certain advantages such as flexibility, adaptability of previous content, and pre-testing to ensure accuracy (McNabb, 2015:109). Moreover, they are cost-effective, practical, time efficient can be scaled to larger or smaller numbers of respondents, provide anonymity, contain no inherent stressors, and they can cover a topic thoroughly (Debois, 2016). In the next section, the design of the questionnaire is discussed.

4.6.1 Design of the questionnaire

Questionnaires are often used for many types of studies. However, when not conducted properly, the data extrapolated from them may not be useful (Crouch & Housden, 2011:171). It is therefore important to lay a foundation and conduct thorough planning beforehand (Gillham, 2007:1). It is important to avoid pitfalls such as sampling error and non-sampling error by researching the correct questions to ask, how to phrase questions properly, and structure the questions in a logical order (Brace, 2008:1).

Important aspects of a questionnaire are the aesthetics of the questionnaire and the introduction to the questionnaire; an attractive questionnaire with a clear cover letter increases the likelihood of individuals becoming respondents (Iacobucci & Churchill, 2010:221). The wording of questions is critical in collecting the correct data, and care should be taken to avoid using loaded questions.

The researcher should, therefore, ensure that questions are easy to understand and are unambiguous (Survey Monkey, 2015; Bradburn *et al.*, 2004:3-4). Lastly, a questionnaire should be pre-tested in order to ensure that it is easy to understand, does not take too long to complete, and does not influence responses inadvertently. Moreover, questionnaires should be structured properly to create flow in order to optimise understanding and time required to complete it (Mora, 2016; Diamond, 1999:95-100). Structured and unstructured questions are discussed next.

4.6.1.1 Structured and unstructured questions

There are two types of questions that can be used in questionnaires: unstructured and structured (Sharma, 2007:20). In an unstructured questionnaire, topics are discussed in-depth and open-ended, which means that the respondents must formulate their own answers. Conversely, in a structured questionnaire, the questions are predetermined, and the same questions are posed to all respondents (Aswathappa, 2013:229; Nicholas, 2009:27).

A Likert-scale is a form of structured question used in questionnaires and represents a systematic way of indexing answers to questions. It presents a series of statements to which a degree of favourable or unfavourable response can be indicated per question (Ary *et al.*, 2009:209). As such, the level of agreement is tested by a Likert-scale, on a sliding scale starting at 1 (strongly disagree) to 6 (strongly agree). However, the researcher must decide whether to use odd or even numbers, where odd numbers present a neutral option, and even numbers force respondents to either agree or disagree, though still to different extents (Tullis & Albert, 2008:124). There are certain inherent advantages to using a Likert-scale, such as offering alternatives to yes or no answers, enabling ordinal data which, in turn, enables the use of more advanced statistical methods, and lastly, it is relatively simple to construct (Monette *et al.*, 2014:352). Moreover, a Likert-scale can be used in many different research topics, it is often more reliable than other methods, it sets respondents at ease, and it may give more reliable insight into the respondents' opinion (Singh, 2009:108).

The Likert-scale based questionnaire utilised structured questions for this study to be as brief and concise as possible. A cover letter was used to pique the interest of the individuals, inform them on the goal of the study, the institution the researcher originates from, and the voluntary and anonymous nature of the study. The content of the questionnaire is discussed next.

4.6.2 Questionnaire content

The questionnaire utilised questions and models from different studies and adapted them to achieve the goal set out by this study. To obtain the necessary data, three sections were used in

the questionnaire. The questionnaire was also accompanied by a cover page to explain the study and introduce the researcher.

Section A (1 – 8) collected demographic data to assess the representativeness of the data. Section B (1 – 14) consisted of two sets of questions in which the first set asked the respondents to rate their preference of smartphone brands. The second set requested the respondents to rate different popular social media platforms. Section C (1–60) measured the different constructs as set out in Section 1.3.3. The questionnaire consisted of questions from brand loyalty (Sahin *et al.*, 2011), brand experience (Sahin *et al.*, 2011), perceived usefulness (Rauniar *et al.*, 2014), anticipated benefits (Ashley *et al.*, 2011), brand activities (Tsimonis & Dimitriadis, 2013; Ashley *et al.*, 2011), brand community (Laroche *et al.*, 2013), intention to be involved (Rauniar *et al.*, 2014; Ashley *et al.*, 2011), brand trust (Sahin *et al.*, 2011), commitment (Badrinarayanan & Laverie, 2013), and advocacy intention (Wallace *et al.*, 2014; Lee *et al.*, 2010). A discussion of pre- and pilot testing follows.

4.6.3 Pre- and pilot testing

Pre-testing is seen as crucial by many experienced researchers; it is suggested that it helps streamline a questionnaire, as well as fix smaller problems would otherwise go unnoticed. There is, however, no clear, concise method of pre-testing which all researchers agree with, though experts tend to agree that pre-testing a questionnaire using a small number of respondents will reveal its difficulties and weaknesses (Vanette, 2015; Presser *et al.*, 2004:110) Furthermore, using a pre-test enables the researcher to refine ideas, identify a variety of problems, to remove ambiguities, and to remove possible bias in questions (French & Gordon 2015:116; Singh, 2009:72).

A pre-test can use either a debriefing or protocol method (Bajpai, 2011:87). The debriefing method consists of presenting the questionnaire as it would be in the full-scale study and afterwards the respondent would be interviewed regarding the questionnaire (Aaker *et al.*, 2009:341). The protocol method requires the respondents to verbalise their answers which are subsequently noted and used by the researcher to make improvements to the original questionnaire (Nelson, 2013).

After the pre-test has been conducted and the alterations made, a pilot test is the next step (Worley, 2011:170). This process helps fine-tune the study to get more reliable results. Furthermore, it assists the researcher in validating and understanding the required time frames for completing the questionnaire and may provide additional data for the study (Schade, 2015). The pilot test should be conducted on a small-scale and should focus on respondents who are

comparable to those used in the full-scale study (Zikmund & Babin, 2006:62). The pilot test will confirm whether the questionnaire can be filled out in ten minutes or less (McDaniel & Gates, 2013:262). A pilot test does not guarantee the success of the main study; however, it increases the chances of success by eliminating problem areas (Hair *et al.*, 2010:180; Presser *et al.*, 2004:110).

In this study, before the pilot test was conducted, a pre-test was done by seeking expertise from experienced researchers. Three researchers were asked to review the questionnaire to find any shortcomings regarding language, phrasing, or any other mistakes. After the experts, eight student respondents were given the questionnaire, after which the debriefing approach was used to understand the perspective of the respondents regarding any shortcomings of the questionnaire. As South Africa has eleven official languages, and the questionnaire was in English, the pre-test was conducted on English first language and English second language students to ensure that the questions were easily understandable by both.

After the pre-test was conducted, minor changes were made before the pilot-test commenced. The pilot test used 80 Generation Y students, who would not form part of the main study, to determine the validity and reliability of the constructs and the models used. The results from the pilot-test are discussed in Section 5.2. The next section focusses on the administration of the questionnaire.

4.6.4   Questionnaire administration

The questionnaire was constructed and submitted for approval from the Ethics Committee of the Faculty of Economic Sciences and Information Technology, at the North West University, Vanderbijlpark Campus. After clearance was given, a certificate was issued with the clearance number: ECONIT-2017-051. Furthermore, approval (NWU-GK-2017-024) was also granted by the NWU Research Data Gatekeeper Committee (RDGC).

The distribution of the main study's questionnaire commenced on 31 July 2017 and gathered the required data from respondents. Lecturers from each of the three HEIs were contacted and permission was sought to distribute the questionnaires to their students, during class time, at the end of their session. The lecturers were shown both the questionnaire and the clearance certificate, following which the purpose of the study was explained to the students for and the voluntary nature of their participation was clarified. Furthermore, their anonymity was assured. After the explanation, the questionnaire was distributed to students who wanted to participate in the study. The following section discusses the data preparation and entails editing (Section 4.7.1), coding (Section 4.7.2), tabulation (Section 4.7.3), and handling missing data (Section 4.7.4).

4.7 DATA PREPARATION

After data is gathered from respondents, the data is captured into a format in which it can be analysed on a computer (Sarkies *et al.*, 2015; Tinsley & Green, 2005:124). It is important for the data to be prepared and for the correct tools to be used in order for a good model to be constructed (Svolba, 2006:xiii). The processing of data involves editing, coding, and tabulation (Iacobucci & Churchill, 2010:350). Addressing missing values is an important part of the cleaning process, as missing data and incorrectly handling missing data can lead to corrupt data (Kwak & Kim, 2017:407-408).

4.7.1 Editing

Editing is the first step taken in data preparation and involves ensuring that the questionnaire is consistent, properly completed and that there are no response errors (Zikmund & Babin, 2013:64). Thus, editing ensures that answers are complete, accurate, and suitable for further processing (Bradley, 2013:313). Experts recommend repeating the editing process to ascertain viability before capturing the data (McDaniel & Gates, 2010:384).

Each questionnaire received from respondents was checked and edited twice, as suggested by the literature. The second lap of editing consisted of addressing missing values, to be discussed in Section 4.6.4. All questionnaires that did not comply with the $18 \leq X < 25$ perimeters were discarded, as were those with a completion rate of less than 90 per cent. For the questionnaire that had less than 10 per cent of data missing, the missing items were assessed using Little's MCAR followed by expectation maximisation to calculate the most likely item value (Section 4.6.4). The coding process is discussed next.

4.7.2 Coding

Coding is the next step in data preparation; it involves transforming data into a numerical form, thus assigning a code (number) to each response. This process is needed because the data collected cannot be analysed otherwise (Zikmund & Babin, 2013:64; Polit & Beck, 2010:76).

The data was coded as seen in Table 4-2, in which the type of data, the variable, and the question number are shown.

Table 4-2:   **Coding of items**

Type of data	Variable	Question number
Demographic data	A1 – A8	Section A, Question A1 – A8
Attitude towards different smartphone brands	B1 – B9	Section B, Question B1 – B9
Attitude towards different social media platforms	B10 – B14	Section B, Question B10 – B14
Brand loyalty	CA1 – CA6	Section C, Question C1 – C6
Brand experience	CB7 – CB11	Section C, Question C7 – C11
Perceived usefulness	CC12 – CC15	Section C, Question C12 – C15
Anticipated benefits	CD16 – CD18	Section C, Question C16 – C18
Brand activities	CE19 – CE23	Section C, Question C16 – C23
Brand community	CF24 – CF31	Section C, Question C24 – C31
Intention to be involved	CG32 – CG39	Section C, Question C32 – C39
Brand trust	CH40 – CH48	Section C, Question C40 – C48
Commitment	CI49 – CI52	Section C, Question C49 – C52
Advocacy intention	CJ53 – CJ60	Section C, Question C53 – C60

Table 4-2 shows the coding for each section of the study, Section A, demographics, Section B, preference, and Section C, the main empirical portion. Tabulation is discussed hereafter.

4.7.3   Tabulation

Tabulation involves presenting or arranging data that were collected into a system in such a manner that there are a certain number of possible responses for each question (Iacobucci & Churchill, 2010:32). There are three main tabulation variations: univariate, bivariate, and multivariate (Malhotra, 2010:467).

In univariate tabulation there is only one response to each question, meaning that the analysis is conducted using one response (Beri, 2013:248). Bivariate tabulation uses two responses at a time; and multivariate tabulation uses more than two responses at a time (Struwig & Stead, 2007:152).

This study made use of univariate tabulation, which consisted of one response per question. There was the exception of item A8, which made use of multivariate tabulation, as the respondent could choose any number of the 6 options provided. The questionnaires which had less than 10 per cent of answers missing are discussed next.

4.7.4 Missing data

Missing data is the data value for a variable in the observation of interest that was not captured due to non-response by the respondent (Statistics Solutions, 2014). Missing data can reduce statistical power can cause bias in estimation, can reduce preventiveness, and can complicate the analysis of the study (Kang, 2013:402). The three main methods in dealing with missing data are a listwise deletion, mean imputation, and maximum likelihood (Grace-Martin, 2018a).

In listwise deletion (also known as complete-case analysis), the data for any case that has missing data is deleted, which is seen as the most convenient option in dealing with missing cases (Enders, 2010:39). Listwise deletion is not ideal in most cases but can be used when the sample size is sufficient or when the values are missing completely at random (Grace-Martin, 2018b). Mean imputation involves inserting the mean value of the item into the missing case (Schumacher & Lomax, 2016:20). Mean imputation can be problematic in that the variance for that data can shrink and decrease the correlation. Secondly, if the mean is substantial then the frequency distribution of the imputed variable can be misleading, which can cause the data to have a leptokurtic distribution (Byrne, 2010:357). In maximum likelihood, the parameters are estimated through the available data, after which the missing data are estimated using the parameters which were estimated. This method is mostly used when the data are relatively complete and is computed using the conditional distribution of other variables (Kang, 2013:404-405). This computation can be conducted using one of three methods, namely expectation-maximisation (EM) algorithm, factoring the likelihood, or direct maximum likelihood (Allison, 2009:78; Allison, 2003:548).

Expectation maximisation is a two-stage process in which the 'expectation' stage makes the best possible estimates of the data that is missing, and the 'maximisation' stage makes estimates of parameters in the assumption that the missing data has been replaced. This process is recursive until the change in estimated values is minute and can replace the missing data (Hair *et al.*, 2014a:48). In factoring the likelihood, the maximum likelihood information matrices for each data partition set are computed separately, after which it is combined using the generalised least squares method (Kim & Shin, 2010:i). In direct or raw maximum likelihood, the linear model of interest is specifically stated, wherein the likelihood function is then applied by directly maximising

it, regarding the model's parameters. This function is often executed using a program such as LISREL, AMOS, EQS, or M-PLUS (Allison, 2009:81).

This study made use of expectation maximisation to fill in the items which were left blank. The following sections 4.7.4.1 and 4.7.4.2 showed the process that followed before conducting an expectation maximisation. Missing data are addressed in Section 5.4.3.

4.7.4.1 Suspicious response patterns

In cleaning data, a researcher may come across suspicious response errors, of which there are two kinds: straight lining and inconsistencies in answers (Sarstedt & Mooi, 2014:92).

Straight lining, also called non-differentiation in ratings, occurs when a respondent provides their answers to a series of questions by ticking the same answer for every question, e.g., ticking strongly agree in a Likert-Scale for every item. It also occurs when a respondent chooses their answers in a pattern, instead of reading and marking every question accordingly (Vanette, 2015). Inconsistencies in answers occur when a screening question is used to filter out those to whom the study does not apply. Furthermore, it is also used by stating a question differently, to ascertain whether the respondent read the questions (Sarstedt & Mooi, 2014:92).

For this study, only straight-lining patterns were assessed. The next section briefly discusses data missing at random.

4.7.4.2 Assessing missing data

Mishandling missing data can lead the researcher to draw inaccurate conclusions and inferences from the data set. This mishandling of data can lead to different inferences than if the data was still missing, instead of filled in incorrectly. Therefore, in a univariate analysis, it is important to ensure that data is missing at random to decrease any chance of bias (Garson, 2015:12; Statistics Solutions, 2014). As such, when using expectation maximisation (EM), the pattern of missing data should be missing at random, or preferably, missing completely at random (Roni, 2014:15). Missing completely at random can be undertaken using Little's MCAR test, where a non-significant finding shows that data is missing completely at random, and an EM can be undertaken. If data is significant, a separate variance t-test can be conducted to determine whether data is at least missing at random (Moss, 2016a).

For this study, Little's MCAR test was conducted to ensure that data were missing completely at random. Moreover, a separate variance t-test, to ensure that data is at least missing at random, was also conducted for the EM as discussed in Section 4.7.4. Next, the statistical analysis of the study will be discussed.

4.8   STATISTICAL ANALYSIS

Statistical analysis involves the systematic analysis of data to detect trends and patterns from which inferences can be made (Polit & Beck, 2010:392). Collected data were analysed with SPSS (Statistical Package for Social Sciences) with the AMOS (Analysis of a Moment Structures) module, version 25.0 for Microsoft Windows.

4.8.1   Descriptive statistics

Descriptive statistics are techniques used to organise and summarise and present data in an orderly manner (Holcomb, 2016:14). Descriptive statistics also link with frequency distributions to summarise data (Malhotra, 2010:486), which ultimately allows for the characterisation of data.

There are three properties of descriptive statistics. Firstly, it is also known as the average, middle point, or common value, regarding scores in a distribution. Secondly, it assesses the spread of the values around the central measure. Finally, there is a form to the distribution, which can be presented graphically (Walker & Maddan, 2013:93). There are three methods of utilising descriptive statistics, namely measures of central tendency, measures of variability, and measures of shape (Pagano, 2013:10). The three measures will be discussed next. The data are discussed in Section 5.4.7 and Section 5.6

4.8.1.1   Measures of central tendency

In measures of central tendency, the clustering of scores in a distribution is assessed (Laerd, 2018; McCauley, 2001:1902). Thus, it is used to find the central or most common value in the distribution. There are three measures of central tendency, namely, mode (for nominal level data), median (for ordinal level data), and mean (for interval and ration level data) (Walker & Maddan, 2013:94).

In the mode, the value which appears most often in a distribution of values is found with regards to a particular item (Anderson *et al.*, 2016:101). Thus, the mode is the most typical value of an item and is used for all levels of measurements (Berman & Wang, 2012:112). In the median, half the scores in the distribution are higher, and the other half are lower, wherein then lies the statistical middle ground. The median is often used when there are scores in the distribution which are very low or very high (McKenzie, 2013:35). The mean is a measure most commonly used to find the central tendency. It refers to the value that is the arithmetic average. It is the sum of all scores in a distribution, divided by the number of scores in that distribution (Dictionary.com, 2018; McCauley, 2001:1902). Thus, the mean is the 'average value', or central location of the data

(Anderson *et al.*, 2016:101). Mean scores are generally used when performance comparisons are made between groups (Coladarci *et al.*, 2011:63).

This study made use of the mean as a measure of central tendency. The measures of variability are discussed next.

4.8.1.2 Measures of variability

Variability shows the extent to which the values of a variable are dispersed around a measure of central tendency (Rosenthal, 2012:39). Thus, it represents the numerical spread of the scores (Polgar & Thomas, 2008:155). There are three techniques used within variability, namely standard deviation, range, and variance (McDaniel & Gates, 2013:407).

Standard deviation shows how closely the observations are clustered to the mean. Thus, it is the measure of the difference that each observation is from the mean (Khan *et al.*, 2012:30). Technically speaking, the standard deviation is found by finding the square root of the variance, which is then expressed in the units originally used (Carter *et al.*, 2011:234). A range is simply the difference between the highest and lowest score in the data set (Howell, 2016:83). Furthermore, the range is most often used with nominal or partially ordered ordinal variables; however, it can also be used as a measure of dispersion for higher-level variables (Walker & Maddan, 2013:39). Variance is important as it is often used in inferential statistics and statistical analysis where several variables are used. Lower numbers show low variability, whereas higher numbers show higher variability. Thus, variance refers to the mean of the squared deviations of observations from their arithmetic mean (Dytham, 2011:55).

This study made use of standard deviation and variance as its measure of variability. Next, the measures of distribution are examined.

4.8.1.3 Data distribution

Measures of shape are used to describe the shape of the data's distribution, and more generally, are used to measure normality of the distribution (Black, 2010:77; Acock, 2008:101). It is important to determine the nature of the distribution before performing advanced statistical analysis (Malhotra, 2010:488). There are two ways in which the shape is measured; namely, skewness and kurtosis (Shukla, 2008:101).

Skewness is the measure of symmetry in a set of data. In a symmetrical data set, the skewness would be zero (Dytham, 2011:57). Normality lies anywhere between -1 and 1; however, values between -2 and 2 are still acceptable (IS, 2010; Chan, 2003:282). A distribution which is skewed shows where the data is piled, as a value above zero would indicate positive skewness and a

value below zero would indicate negative skewness (Black, 2010:77; Sheskin, 2003:173-174). Kurtosis refers to the 'peakedness' of distribution when correlated to a normal distribution. When kurtosis is high, the shape has a higher proportion in the centre and thus it is peaked. Furthermore, high kurtosis has a long tail compared to a normal distribution. In low kurtosis, the shape is flatter, its centre is broad and rounded, and its tails are short in comparison to a normal distribution (Rosenthal, 2012:57). Thus, kurtosis informs whether there are more or fewer observations surrounding the mean in comparison with a normal distribution (Dytham, 2011:57). Technically a normal distribution with a value of zero is known as a mesokurtic distribution, a negative distribution is known as a platykurtic distribution, and a positive kurtosis is known as a leptokurtic distribution. Depending on the researcher, different values are accepted. Generally, values between -2 to 2 are deemed acceptable (Hahs-Vaughn & Lomax, 2012:90).

This study made use of both skewness and kurtosis as its measures of shape. The following section focusses on the juxtaposition of variables based on demographic factors.

4.8.2   Juxtaposition

In an independent samples test, two or more independent groups are compared to determine whether there is a significant difference in their mean scores and/or another numeric criterion (Kent State, 2018; LaMorte, 2017; Hatcher, 2003:415).

To conduct a t-test, the following should be noted: the dependent scores measure a ratio variable or an interval. In raw scores, the populations form near normal distributions; the populations have homogenous variance; it is not necessary for each condition to have the same sample size, but it should not vary too widely (Heimen, 2014:265). The goal of the two samples t-test is to ascertain whether the mean values of two different groups differ and to base judgements on the findings (Boslaugh, 2012:160). There are three main types of t-tests, namely the one sample t-test, the two independent-samples t-test, and the paired samples t-test (Zikmund & Babin, 2013:390; 394). Another method of juxtaposition is the k independent samples test. It is a rank-based test which is nonparametric and can be used to ascertain whether statistically significant differences exist between two or more groups. These differences assessed are based on an independent variable on continuous or a dependent variable that is ordinal (Laerd, 2014). In SEM, juxtaposition can occur in several ways, such as multigroup moderation, using AMOS. Here, two groups are used, and the model proposed is tested for each group (Gaskin, 2011).

For the purpose of this study, the two samples t-test and the k independent samples test were used to ascertain any differences between respondents' means regarding their usage and feelings towards social media. Multigroup moderation was conducted in AMOS, which was used

to assess the significance of the various paths for female students in one group, and male students in the other. The juxtapositioning of variables is discussed in Section 5.9. Cohen's D will be discussed next briefly.

4.8.2.1 Cohen's D

Cohen's D is regarded as one of the most direct and simplest methods for measuring the size of the effects. As such, the effect size is standardised by measuring the mean difference using standard deviation. Thus, it measures the separation degree between distributions, where d = 1 is considered a large difference (Gravetter & Wallnau, 2009:262).

When using Cohen's D, d = 0.2 indicates a small effect; d = 0.5 indicates a medium effect, and d = 0.8 is a large effect (Mitchell & Jolley, 2010:372).

To calculate Cohen's D, the following formula was used (Ellis, 2011):

$$d = (M1 - M2)/((\sqrt{S1^2 + S2^2})/2)$$

This study made use of Cohen's D to investigate the weight of the differences where statistical significances were found using the two samples independent t-test.

4.9 EXPLORATORY FACTOR ANALYSIS

In a factor analysis, a set of statistical procedures are used which are designed to ascertain the number of factors needed in determining patterns of correlations in a set of items (Fabrigar & Wegener, 2011:3). The focus here is on reducing or summarising the items into smaller groups of factors (Feinburg *et al.*, 2013:480). Furthermore, it can evaluate correlations between items, which items are related, and which items have no relation, ultimately revealing item to factor correlation (UCLA, 2016; Hair *et al.*, 1995:368). There are two types of factor analysis which can be used: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Mtab, 2018).

EFA is used to determine links which are observed in unknown, uncertain latent items. Therefore, it establishes the degree to which observed items link to causal factors (Byrne, 2010:5-6). There are challenges to implementing a model, as researchers must determine whether the factor model is appropriate and whether exploratory implementation would be the best approach. Therefore, the researcher must decide whether their research goals are addressed in an adequate manner by the model they propose, whether the data satisfies the assumptions proposed, and lastly whether the understanding of substantive measures suggest EFA (Fabrigar & Wegener, 2011:17). Lastly, Greer (2016) suggests that there are several factors to consider after deciding

on the method of factor analysis to be used; those being a rotation of factors, number of factors, factor loadings, and interpretation of factors.

This study made use of EFA, which was deemed viable in determining the causal factors of the scale. CFA was also used and will be discussed in more detail in Section 4.10. The data are discussed in Section 5.5. There are several considerations to be made before a factor analysis can be conducted; these are discussed next.

4.9.1 Factor analysis research design considerations

To conduct an EFA, the sample size should be adequately large to get better results (Pallant, 2010:182-183). Pearson (2008:4-5) suggests that there are several methods to ascertain sample size, of which a few will be mentioned. It has been suggested that there should be a minimum of 10 respondents, where others rate it on a scale where 50 is very poor, 100 poor, 200 fair, 300 good, 500 very good, and a 1000 or more, excellent. Other studies suggest a ratio of 5:1 to be sufficient; meaning five subjects per variable (Hair *et al.*, 2010:102). A ratio of 10:1 has also been posited (Wolf *et al.*, 2013:914; Nunnally, 1978:421). However, it is important for researchers to consider their sample size against the background of the model they are considering, as well as the data characteristics (Hair *et al.*, 2014b:19-20).

4.9.2 Determine the statistical viability of an EFA

After size and naming considerations, but before an EFA is conducted, the researcher should ensure that the sample is adequate using Kaiser-Meyer-Olkin (KMO) for the factor analysis. To ascertain whether correlations are relevant, Bartlett's test of sphericity should be used (Hinton *et al.*, 2004:349). The KMO value should be higher than 0.5, which will indicate that the factor analysis can proceed (Larose, 2006:19). The Bartlett's test should show a significant p-value ($p < 0.05$) before continuing with factor analysis to ensure the viability thereof (Hinton *et al.*, 2004:349).

This study made use of both the KMO value as well as Bartlett's test to verify that the data was viable.

4.9.3 Determine the factor method for the EFA

Factor analysis measures items that do not exist solitarily. They are merely attributes or the state of objects, thus, the variables should always be considered in regard to objects, persons, or subjects whose states or attributes are going to be measured by using the items (Mulaik, 2009:168). Where the variance is concerned, there are two broad approaches (classified as orthogonal solutions) to factor analysis, namely principal component analysis, and common factor

analysis (Child, 2006:48). Principal component analysis deals with total variance, common factor analysis only deals with common variance (Hair *et al.*, 2014b:105).

Principal component analysis sets out to reduce the dimensionality of a set of data which contains a high number of interrelated variables while retaining as much of the variation present in the data set as possible. This can be achieved by converting to a set of new variables (principal components) which are not correlated but are ordered in such a way that the first ones retain most of the variation that is present in all the original variables (Brems, 2017; Jolliffe, 1986:1). Principle component analysis resembles common factor analysis; however, there are important differences between them. The output of principal component analysis provides correlations between components and observed variables, which are interpreted in terms of what is measured by the variables with which each component correlates. Furthermore, principal components are known, and weighted sums of the variables are given in order to elucidate variance in terms of multiple correlation principles (McDonald, 2014:66). Common factor analysis is used to understand or represent the structure of correlations in observed scores on a set of measures. This can be directly measured, which is why the observed scores are also referred to as measured items (Fabrigar & Wegener, 2011:5). The difference between the two variants is that common factor analysis has an error term and principal component analysis assumes that the factors predict the items perfectly. When the different models are used on the same data, with sufficient items and a reasonable population, the same results will be given (Gorsuch, 2015:1).

This study made use of principal component analysis for its factor analysis. Deciding on the number of factors is the next step in the process.

4.9.4   Number of factors

After the rotation of factors, it should be decided how many factors are to be retained. Here, the optimal number of factors is chosen to fit the goal of the study (Preacher *et al.*, 2013:29). This is one of the most important decisions to make, as mistakes such as extracting too many or too few factors could cause erroneous conclusions to be made when conducting the analysis (Ledesma & Valero-Mora, 2007:1). The most popular methods used to decide how many factors to retain are the a priori criteria, scree plots, and eigenvalue methods (Hair *et al.*, 1998:103-104). However, it is argued that a cumulative of at least 60 should be attained in the variance explained. Therefore, the number of factors should have a total of more than 60 per cent (Hair *et al.*, 2014a:107).

'A priori criteria' is a Latin term that suggests that the researcher has prior knowledge regarding the research, without having conducted an analysis (Merriam-Webster, 2016). On this basis, the researcher decides how many factors should be extracted based on prior knowledge obtained

through the literature (Malhotra, 2010:643). Even when the researcher's theory does not explicitly show how many factors to retain, it is rare that an EFA would be conducted without the researcher having an approximate estimate of how many factors are plausible to use (Preacher *et al.*, 2013:32). However, this approximation is often substantiated using EFA, to find the number of factors to be used empirically (Ruscio & Roche, 2012:282). A scree plot is used to plot eigenvalues in descending order. A 'big gap' or 'elbow' in the graph illustrates which components to keep and which to discard (McNabb, 2013:272). The eigenvalue method calculates the priorities and degree of inconsistency for the factors (Ishizaka & Nemery, 2013:33). It states that only factors which have eigenvalues larger than 1 should be retained (Buglear, 2014:134). As such, those with negligible eigenvalues are discarded without a loss of explanatory power (Afifi *et al.*, 2012:372; Jobson, 1999:290).

As this study made use of verified scales which were used in previous studies, the a priori criteria method was used to determine the number of factors to extract. Moreover, this study made use of the eigenvalue method to justify the number of factors retained. Rotational methods are discussed next.

4.9.5 Determine the rotational method for the EFA

During factor rotation, provisional factors are changed to find factors that are new and easier to interpret. Factors are rotated continuously until a simpler structure is found (Osborne, 2015:1-2; Johnson & Wichern, 2007:504). Therefore, it is assumed that the factors which are used initially will be rotated so that the factors meet the criteria which make them more relevant to the study at hand. As such, the variables are selected for the rotated factors to have a higher likelihood of being meaningful (Gorsuch, 2015:186-187). There are two types of rotations, oblique and orthogonal (Manly & Alberto, 2017:124).

In Oblique rotation, factor independence is not allowed, and the factors can correlate. Essentially, this enables more accurate representation of the complex structure of examined variables (Maroof, 2012:31). In this rotation method, associations among extracted factors deliver close-to-zero estimates (Rahn, 2016; Yang, 2005:193). The oblique rotation method consists of promax rotation and direct oblimin rotation (Pallant, 2010:185).

The orthogonal method is used to address several statistical variables simultaneously and factors which are uncorrelated when they are extracted in the initial rotation (Kline, 2016:192; Chen *et al.* 2003:172). There are several types of orthogonal methods, such as equamax, quartimax, and varimax (Pallant, 2010:185). Varimax is most commonly used (Penn State, 2018; Finch, 2006:39; Manly, 2004:94).

The varimax rotation is used to reorient the original factors loadings between -1 and 1 (Feinberg *et al.*, 2013:492). It is suggested that both varimax and promax can recover underlying factor structures (Finch, 2006). The promax rotation allows factors to be correlated and is calculated quickly, even in large datasets (IBM, 2014), and is considered to be the most widely used oblique rotation method (Kline, 2016:193).

This study made use of the oblique method, using promax rotation. A Kappa-value of 4 was set for the promax rotation, as proposed by Di Franco and Marradi (2013:98). Next, the factor matrix is discussed.

4.9.6 Assess the factor matrix

Generally, factors are considered to be representations of general categories in regard to the factor analysis. A factor loading shows how much an item is explained by a factor in the analysis (Minitab, 2016). Furthermore, factor loadings are equal to correlations between factors and items where a single common factor is involved, or numerous factors are orthogonal (Statsoft, 2009; Kim & Mueller, 1978:21). Thus, a factor loading expresses the relationship an item has to the underlying factor (Rahn, 2016). Factor loading values ideally should be close to -1, 0, or 1 to aid in interpretability (Feinberg *et al.*, 2013:492), though factor loadings of approximately 0.4 are deemed acceptable (Wiid & Diggines, 2013:242). For higher quality data, however, factors should at least be 0.5, where some might go as high as 0.6 (Bradley, 2010:322). When the researcher wants to keep only the highest quality of data, 0.7 is used as a minimum (Inoue *et al.*, 2016:12). The factor loading minimum is left up to the researcher; however, a loading should ideally only load cleanly onto one factor, which might change the suppression number (Rahn, 2016). Thus, when an item loads onto more than one factor and the difference in loading is not > 0.20, it should be deleted (Northcott & Hilari, 2013:826). Another important part of EFA is communalities. Communalities explain the proportion variance for each item, explained by the factors. Thus, it is the sum of the squared factor loadings for the variables (IDRE, 2016). Ideally, communalities should be above 0.5 to ensure high-quality data (Chetty & Datt, 2015).

In this study, factor loadings below 0.6 were removed. Items with communalities below 0.5 were removed to retain the highest quality data and to ensure that the structural equation modelling would have a proper fit.

4.9.7 Factor naming considerations

The naming of factors is an important step in factor analysis. Here, there are certain things researchers should be cautious of. Factor names may not always reflect variables in the factor accurately; naming factors can be difficult; some factors might be difficult to interpret because

they load onto more than one factor; conducting the study at different times might negatively impact the data (Yong & Pearce, 2013:81; 91). Ultimately, the naming of factors is subjective and must encapsulate the essence of the variables inside of the factor. Therefore, the onus is on the researcher to consider the variables and then name the factors according to what they embody (Carducci, 2009:275).

4.10 CONFIRMATORY FACTOR ANALYSIS

CFA is a form of structural equation modelling which focusses on measurement models. This means that it deals with relationships between observed measures or indicators and latent variables or factors. However, a researcher must know the number of factors that exist in the data, and which factors are related to one another (Brown, 2015:1). CFA is primarily used in a psychometric evaluation of measures, construct validation, testing measurement of invariance, and testing method effects (Harrington, 2009:3). Moreover, CFA is used to verify factor structures of a set of observed variables (Suhr, 2006:1). The viability of the data will be discussed next, where multicollinearity, common method bias, and outliers will be introduced.

4.11 VIABILITY OF THE DATA

This section will discuss multicollinearity, common method bias, and outliers which were tested to ensure the viability of the data. Data viability is further discussed in Section 5.6, Section 5.7, and Section 5.8.

4.11.1 Multicollinearity

Multicollinearity is also known as ill-conditioning or collinearity and refers to a problem in data where two or more predictor variables correlate highly or are linearly dependent. Here, one can be nearly linear in a combination of other predictor variables (Hwang & Takane, 2015:213). Thus, multicollinearity describes the correlation that exists between three or more independent variables. Multicollinearity makes it nearly impossible to evaluate the contribution the predictor variables have on the dependent variables. It is important that the condition of multicollinearity is the same as when the model was built for the model not to be affected by it (Ratner, 2012:232). Multicollinearity can be caused by several different factors including improper use of dummy variables; variables computed from other variables; nearly identical variables, twice; variables that are highly correlated (Williams, 2015). To assess multicollinearity, the researcher must examine tolerance, the variance inflation factor (VIF), and the condition index (Hair *et al.*, 2010:220-221).

Tolerance is reported by most statistical programs. Here, it will show the researcher the extent of the tolerance; the smaller the tolerance value, the more linear the variable. This means that it

should not be used in the regression equation (Braunstein, 2013). Furthermore, tolerance shows the amount of variance in the independent variable not accounted for by the remaining independent variables. Here, the formula e1 - R2 is used. Tolerance levels of 0.100 or less are problematic, and VIF values of 10 or more are problematic (Orme & Combs-Orme, 2009:27). A condition index of higher than 30 is considered to be high; however, this is used as an informal rule (Su, 2016:38). The next section briefly examines dealing with common method bias.

4.11.2 Common method bias

Common method bias, also known as common method variance, is of concern where self-report questionnaires are used in the collection of data from the same participants, at the same time (Ling, 2014). To combat common method bias, a researcher should plan in advance and should conduct a post hoc analysis to analyse the possibility of common method bias being present. The post hoc method makes use of statistical methods to analyse the data (Kaynak, 2011:225).

This study made use of Harman's single-factor test, where a variance of < 50 is seen as an acceptable level of variance (Gaskin, 2011; Podsakoff *et al.*, 2003:879). A common latent factor assessment was also used. Here, variance < 50% is considered adequate (Eichhorn, 2014:4). Outliers are discussed next.

4.11.3 Outliers

In a practical sense, outliers are the number of standard deviations that the case lies away from the average or mean. Researchers differ on what they consider to be outliers; where some might use a ± 2, others might use ± 3 standard deviations from the mean as the cut-off point (De Vaus, 2004:94). How this is handled is important because means, standard deviations, and correlations are highly sensitive to outliers (Grace-Martin, 2017).

This study made use of descriptive exploration to assess the descriptive diagram and conducted a Z-test (Investopedia, 2017c; Pallant, 2011). The next section describes the correlation analysis.

4.11.4 Correlation analysis

The relationships that exist between variables are measured and the strengths thereof are determined through statistical methods. This process is called correlation analysis (Wheeler *et al.*, 2010:177). The correlation analysis method that holds the highest standing is Pearson's correlation coefficient (Wheeler *et al.*, 2010:177). Another statistical method that can be used in a correlation analysis is Spearman's rho (Colman & Pulford, 2008:41).

Pearson's correlation coefficient, also called the Pearson product-moment correlation coefficient, measures the strength of a linear association which exists between two variables, and is shown as r (Laerd, 2013). Thus, Pearson's correlation measures the degree to which there is a relationship where linearly related variables are concerned (Statistics Solutions, 2014). Spearman's Rho measures the linear relationship between two variables and differs from Pearson's correlation in that calculations are conducted after data have been converted to ranks (Lane, 2013). Both Spearman's Rho and Pearson's correlation coefficient range from -1 (perfect negative linear correlation) to 0 (no linear correlation) to 1 (perfect positive linear correlation) (Colman & Pulford, 2008:41-42). In a positive correlation, if one variable increases, the other variable would increase as well; in a negative correlation, the other variable would decrease. Lastly, when there is no correlation, the increase in one would yield no effect on the other variable (Crawford, 2004:1). The degrees of correlation are shown in Table 4-3.

Table 4-3: **Degrees of correlation in Pearson's correlation coefficient (Statistics Solutions, 2014; Kelly, 2009:167)**

Correlation	Weight
Perfect	±1
High degree	±0.50 to ±1
Moderate degree	±0.30 to ±0.49
Low degree	±0.29
No correlation	0

Pearson's correlation coefficient was used to determine the nomological validity of the data in this study, where values above 0.29 showed a low degree of correlation, 0.30 to 0.49 showed moderate correlation, and 0.50 to 1 showed a high degree of correlation. Structural equation modelling is discussed next.

4.12 STRUCTURAL EQUATION MODELLING

Structural equation modelling, more commonly known as SEM, is a group of statistical methods used to model the relationships between variables (Hoyle, 2015:3). SEM generally depicts relations between observed and latent variables which are in various types of theoretical models and provide a quantitative test of the researcher's hypotheses. Simply, SEM tests theoretical models hypothesised by a researcher (Schumacher & Lomax, 2016:1).

The variate is also known as the composite variable and is known as a linear combination of several variables which have been chosen to help address the research problem (Ramsey & Schafer, 2013:519). Constructs or variables are abstractions that are used to express what a

researcher is interested in. They are used to explain and simplify complex component theories (Kenny, 2016). SEM is useful for measuring latent variables, which are variables which cannot be tested on their own. To do so, questionnaires making use of a Likert-scale gather the required data. The latent variables subsequently are measured by measuring constructs which might explain it (Blunch, 2013:9-10).

SEM and confirmatory factor analysis have similar aims in that they are used to explain correlations of observed variables in terms of their relationships with the assumed, underlying latent variables (Everitt & Hothorn, 2011:201). SEM essentially uses models which are simplified descriptions of real-world phenomena. The connection between variables in these models is shown graphically by using arrows to indicate which variables affect each other (Blunch, 2013:5). As such, a strength of SEM is the fact that a dependent variable can become an independent variable when analysing subsequent relationships, within the analysis being conducted (Astrachan *et al.*, 2014:116; Shook *et al.*, 2004:397). In SEM, the following steps should be taken: measurement model reliability and validity; specifying the structural and measurement models; mediation; and evaluation of measurement models (Hair *et al.*, 2014a:4-9; Malhotra, 2010:731). Structural equation modelling was conducted in Section 5.10.

4.12.1 Reliability

Reliability is a term used to describe the stability or consistency of measurement as well as the extent to which it is free from random errors (Feinburg *et al.*, 2013:128; Carter *et al.*, 2009:243). Simply put, reliability refers to the agreement across several measures which are of the same construct (Warner, 2013:1093). In general, there are three techniques which can be used to assess reliability: test-retest, split-half, and internal consistency (Carter *et al.*, 2009:243).

The test-retest technique constitutes administering the test to the same sample at two different times; once completed, the data are compared which allows the researcher to evaluate error (Kaplan & Saccuzzo, 2008:109). Thus, test-retest shows the stability or consistency of test scores over a period (Johnson & Christensen, 2014:167). The split-half technique divides the data into two subsets (odd-numbered versus even-numbered) which are scored separately and, subsequently, the subscores are correlated. The resulting correlation coefficient estimates the extent to which the two halves perform in the same measurement on a recurring basis (Oermann & Gaberson, 2014:40). Thus, the scores from one half of the test are compared to scores from the other half (DePoy & Gitlin, 2011:202). To accurately measure the r of the split-half, a Cronbach's alpha is often used (Stangor, 2014:95). Internal consistency is the degree to which a measure is consistent and internally reliable (Cassidy, 2012:75). It provides an estimation of reliability based on the inter-correlations which can be seen in observed indicator variables (Hair

et al., 2014a:101). The most common technique used for a continuous measure of internal consistency is Cronbach's alpha (Windsor, 2015:202).

Cronbach's alpha is a frequently used technique to measure internal consistency reliability. Cronbach's alpha measures the extent to which variables measure a single, unidimensional construct. Therefore, it is the correlation between item responses in a questionnaire (Andrew *et al.*, 2011:202). Values in the outcome of the Cronbach's alpha are rated as in Table 4-4.

Table 4-4:   Cronbach's alpha (George & Mallery, 2016:240)

Rating	Value
Excellent	$\alpha \geq 0.9$
Good	$0.9 > \alpha \geq 0.8$
Acceptable	$0.8 > \alpha \geq 0.7$
Questionable	$0.7 > \alpha \geq 0.6$
Poor	$0.6 > \alpha \geq 0.5$
Unacceptable	$\alpha < 0.5$

This study made use of Cronbach's alpha to test the reliability of the study's data. Values above 0.7 were deemed acceptable as per Table 4-4. An average inter-item correlation was also used, in which a range between 0.15 and 0.5 are ideal (Spiliotopoulou, 2009:12; Felton, 2008:40). However, an inter-item correlation value of ~0.6 is still deemed viable (Myburgh *et al.*, 2014:124; Katamba, 2010:22; Llego-Canceko *et al.*, 2009:65). The next section focusses on the validity of the study and how it will be assessed.

4.12.2 Validity

In validity, conclusions are tested to ascertain their veracity with regards to the status quo in the world (McBurney & White, 2009:173). Thus, validity tests whether a study measures what it claims to measure and whether the conclusions drawn from the study would be logical (Moutinho & Hutchenson, 2011:327). Impure validity leads to the questioning of causal claims made in the study, thus it is of utmost importance for validity to be tested (Taylor, 2013:24). There are three generally used techniques which test for validity; namely, criteria, content, and construct validity (Newton & Shaw, 2014:135).

Criteria validity is the correlation between the scale used and the accepted standard measures or criteria. For the researcher, ideally, these criteria are direct and objective measures of what is being measured (Moutinho & Hutchenson, 2011:328). Criteria validity is an accurate predictor of what the underlying theory suggests it should predict (Feinburg *et al.*, 2013:131; Iacobucci &

Churchill, 2010:256). Content validity estimates the extent to which a measurement represents every element of a construct (Shuttleworth, 2009a). As such, it shows whether the measure reflects the body of knowledge surrounding the constructs used. Two methods can be used; either an expert can be approached to validify the content, or the group to be measured can be approached to weigh in on the content. Construct validity assesses to which extent the measure meets the theoretical expectations of diverging or converging with other constructs related to it (Morrison-Beedy & Melnyk, 2012:125). It has become the central type of assessment in validity testing and includes most other forms of validity testing (Verran & Meek, 2012:530). Construct validity comprises three measures; namely, convergent, nomological, and discriminant validity (Malhotra, 2010:321).

Convergent validity is used to show the extent to which variables in a construct are correlated (Müller, 2012:129). Therefore, convergent validity seeks to address the degree to which an instrument is similar to other variables which are theoretically relevant (Simmons, 2013:45). This can be achieved through factor loadings as well as composite reliability measures. An outcome above 0.7 is considered reliable (Muhammadhossein *et al.*,2015:1279). In nomological validity, an assessment is made as to whether each measure is related properly to other relevant constructs (Hyman & Sierra, 2010:121). Furthermore, it is evidence that there is a consistency within the structural relationship among variables or constructs with other studies which have been measured, validated, and tested regarding a variety of persons, times, methods, and settings (Hair *et al.*, 2014b:124; Straub *et al.*, 2004). A nomological p-value lower than 0.05 ($p < 0.05$), but ideally lower than 0.01 ($p < 0.01$), is desired for significance (Schoonjans, 2017; Pessoa *et al.*, 2014:236; Brahma & Chakraborty, 2009:217). Discriminant validity ensures that constructs which should not correlate, do not correlate (Shuttleworth, 2009b). Thus, discriminant validity tests the degree to which the instrument diverges from variables which are theoretically different (Simmons, 2013:45). A variance of more than 0.5 suggests that discriminant validity has been achieved (Garcia-Machado *et al.*, 2012:321).

This study made use of nomological validity to assess whether there was consistency among variables.

4.12.3 Sample sizes in SEM

The sample size is a crucial decision in SEM and should be carefully considered (Karakaya-Ozyer & Aksu-Dunya, 2018:282; Hair *et al.*, 1998:604). In SEM, the researcher often requires large sample sizes to maintain power and to obtain stable parameter estimates and standard errors. Adequate sample sizes are also essential for the programs used because of the multiple observed variables which are used to define latent variables. However, it is difficult to calculate an exact

estimate of how large a sample should be in SEM (Schumacher & Lomax, 2016:38-39). Some have postulated that a minimum sample size of 100 to 200 is needed; others suggest five to ten observations per parameter tested; and there are many other recommendations in between (Wolf *et al.*, 2013:913). It has also been posited that a sample size of five for every variable is needed to be viable. This would mean that a study in which there are 40 variables in three constructs would need a sample size of 200 (Astrachan *et al.*, 2014:118). Thus, the following should be kept in mind: one size does not fit all, more is not necessarily better, and sample size estimates can vary (Wolf *et al.*, 2013:10-13).

This study made use of a sample size of 600 based on previous similar studies (Kim & Ko, 2012:1483; Ting, 2011) and because there were 60 items, it would provide a 10:1 ratio.

4.12.4 PLS-SEM vs CB-SEM

Consideration should also be given to PLS-SEM and CB-SEM (Hair *et al.*, 2011:139-151). In situations where the theory is less developed, researchers should consider the use of PLS-SEM as an alternative approach to CB-SEM. The main difference between the two is the estimation procedure which is used; ordinary least squares for PLS-SEM or maximum likelihood for CB-SEM (Hair *et al.*, 2014a:14). Regardless of which procedure one uses, SEM can simultaneously assess the quality of measurement as well as the causal relationships which exist among constructs (Wang & Wang, 2012:1). Table 4-5 addresses the differences between PLS-SEM and CB-SEM.

Table 4-5:   PLS-SEM vs. CB-SEM (Hair *et al.* 2011:139-151)

Use PLS-SEM when	Use CB-SEM when
The goal is predicting key target constructs or identifying key "driver" constructs.	The goal is theory testing, theory confirmation, or the comparison of alternative theories.
Formatively measured constructs are part of the structural model.	Error terms require additional specification, such as the covariation.
The structural model is complex (many constructs and many indicators).	The structural model has non-recursive relationships.
The sample size is small, and/or the data are non-normally distributed	The research requires a global goodness-of-fit criterion
The plan is to use latent variable scores in subsequent analyses.	N/A

This study made use of CB-SEM as there was a large sample size where the goodness of fit was important, and the goal was to test the theory.

4.12.5 Specifying the structural model and measurement model

The measurement in SEM relates the variables that are measured to latent variables, as opposed to the structural model where latent variables are related to one another (Wuensch, 2014). In SEM, confirmatory factor analysis is known in the measurement model as it determines how the factors are measured by the indicators (Escobar, 2016). In the first stages of a research project that involves SEM, it is important to create a diagram that shows the research hypotheses as well as the relationships between the variables that will be examined. This diagram is called a path model (Hair *et al.*, 2014a:33). The path model is thus a depiction of the causal relations between variables. This model is most often read from left to right, where the variables on the left are the independent variables, which predict the outcome of the variable on the right (Adar, 2014). The completed model then acts as a language used to describe how the researcher believes the social context of the research objective works. Thus, it summarises the way in which the concepts of the theory relate in both an indirect and direct manner, to account for the behaviour observed (Simcox, 2016). The following is an example of a path model.
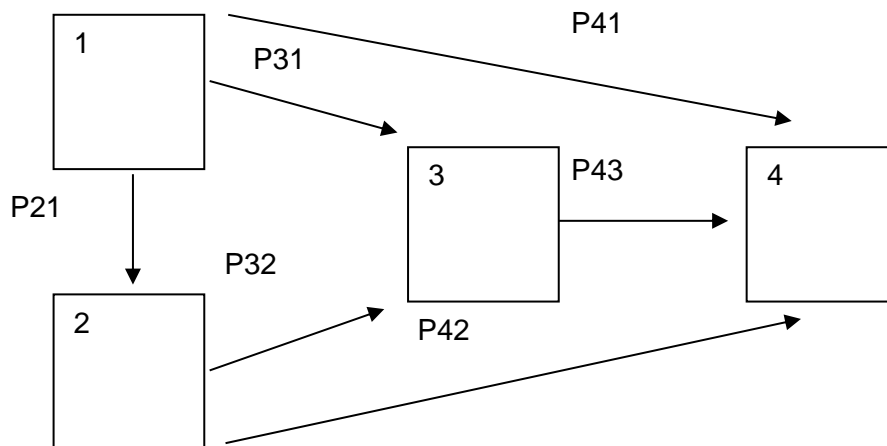
Figure 4-4:   Path model example

The arrows show the causal relations which are assumed by the researcher, from cause to effect. Independent variables are called exogenous variables; dependent variables are called endogenous variables. Path coefficients indicate the direct effect a variable is assumed to have on another variable. The path that is assumed is written as P21, where the path heads from 1 to 2 (Brannick, 2015). However, it should be noted that setting the sequence is rarely an easy task. It is thus suggested that when the literature is ambiguous regarding the sequence of variables, researchers should use their best judgement to determine the sequence. The sequence may be adjusted to find the most accurate portrayal of theoretical concepts (Hair *et al.*, 2014a:35).

When building an SEM model, certain guidelines must be followed (Hair *et al.*, 2014b:50):

- The variables and constructs must be relevant to the study, properly identified, and defined.

- It must be stated which constructs are dependent, and which are independent, as well as stating which moderators and mediators are used.

- Must be based on previous theory, logic, previous research, or the judgement of the researcher.

- The relationships between variables must be explained as well as the reason(s) that they are believed to exist. This can be done through theory.

- A model must be prepared to illustrate the relationships that are hypothesised to exist.

- A measurement should be stated, discussed, and motivated.

Furthermore, it is important to choose the correct instrument and to justify its use. The correct items should be chosen, and a decision should be taken as to who the respondents will be. Lastly, how respondents will be engaged should be decided on based on sound logic (Revelle, 2012).

4.12.6 Mediation

When there are indirect effects of a variable on another, a mediator is introduced to achieve cause and effect. This is shown in Figure 4-5 (Hoffman, 2015).
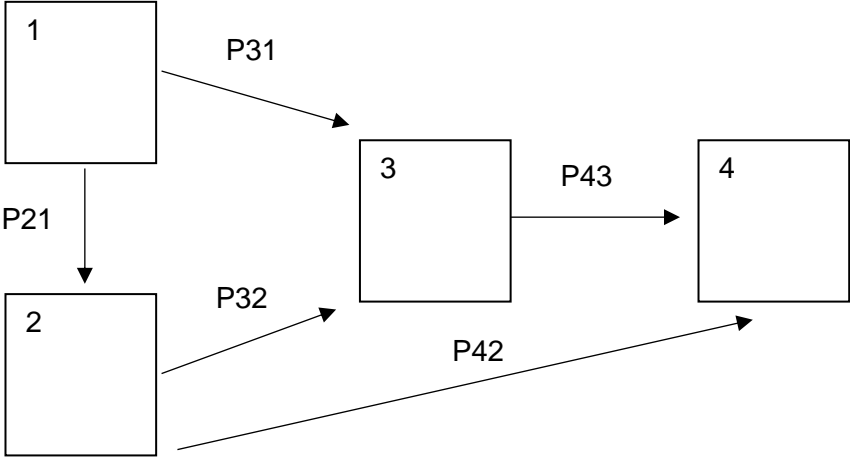
Figure 4-5:   Mediation

As seen in Figure 4-5, where before, variable 1 was a direct cause to the effect variable 4 (as is the case with P42), it must now be mediated through variable 3 (P31) in order to achieve the effect in variable 4. Therefore, in a mediation model, the effect of a variable is exerted on another, via an intervening variable, which is called the mediator (Bowen & Guo, 2011:2).

There are two types of mediation, namely direct and indirect effect (Muthen, 2011:3). The direct effect links the dependent variable to the independent variable directly (MacKinnon, 2008:2). Thus, as seen in Figure 4-6, the direct effect is then the effect a variable (1 through P21) has on another variable (2), without the need for an intermediary (Preacher & Hayes, 2008:879-880).
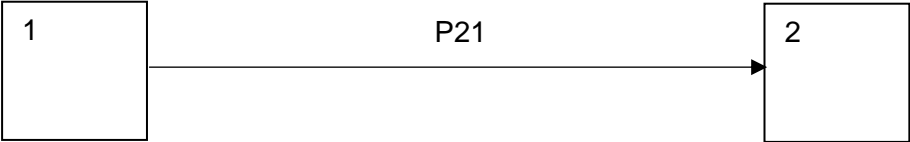
Figure 4-6:   Direct path effect

Figure 4-7 shows the indirect effect of a path. Indirect effects are those variables which are mediated by at least one other variable. They are determined by subtracting direct effects from total effects (Bollen, 1987:40).
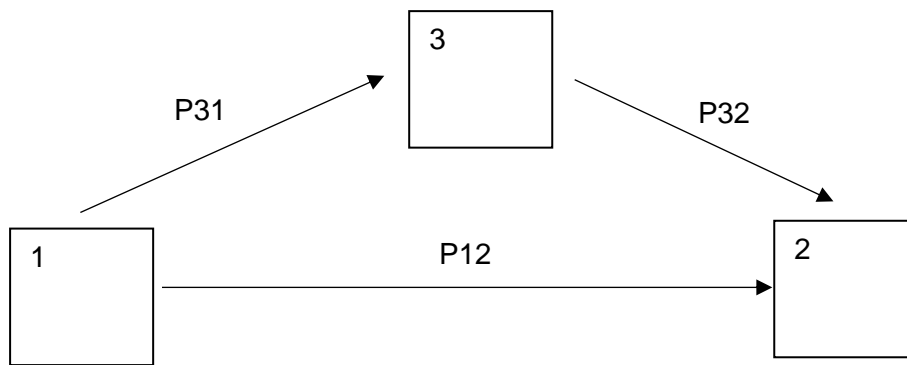
Figure 4-7:   Mediating effect

As seen in Figure 4-7, an indirect effect is an effect on a variable (1 through P12) exerts on another variable (2), through another variable (3 through P31) (Preacher & Hayes, 2008:879-880). The simultaneous nature of indirect and direct effects plays a dual role in the mediation process as both cause and outcome (Gunzler *et al.*, 2013:391).

To have successful mediators in path analysis, certain aspects should be met. The sample size selected should have sufficient statistical power to detect the mediated effects. A minimum sample size of 500 is suggested (MacKinnon, 2008:399). Next, the variables, that is the independent, dependent, and mediating variable, should be significantly correlated (Hair *et al.*, 2010:767).

There are four steps to the identification and measurement of mediators in a research study. These are as follows (MacKinnon, 2008:399):

- Step one: Identify mediating variables which are targeted by each component.

- Step two: Specify the measures of each mediating variable that exists in the questionnaire.

- Step three: Reliability is assessed in which a measure of 0.7 or greater is seen as adequate. Furthermore, confirmatory factor analysis can be conducted to ensure that no excessive overlapping is present among the variables.

- Step four: In the final step, decisions made are reported on regarding the independent, dependent, and mediating variables.

To evaluate the quality of measurement models, blindfolding and bootstrapping can be used (Hair *et al.*, 2014a:115). Blindfolding is known as samples re-use technique. This technique deletes data points, after which it gives a prognosis of their original values (SmartPLS, 2017). In bootstrapping, subsamples are drawn randomly from the original data set. Each of these subsamples is then used to estimate the model. This process would be repeated recurrently, until

many subsamples have been created. The parameter estimates are then used to derive standard errors for the estimates. Lastly, this information can be used to calculate t-values and assess the weight of each indicator (Hair *et al.*, 2014a:127).

This study made use of bootstrapping to measure the indirect effects used in the model that was proposed. It is suggested that the number of bootstrap samples is set to 2000 and the bias-corrected confidence intervals be left at 90 (AMOS, 2005).

4.12.7 Evaluation of measurement models

In SEM, the goodness of fit is seen as the establishment of whether the model is acceptable. After acceptability has been concluded, paths are analysed for viability. The fit is most often derived by using the chi-square value (Moss, 2016b). Chi-square has some drawbacks which are mentioned below (Newsom, 2012):

- Larger sample sizes produce larger chi-squares. Thus, when sample sizes rise above 200, the majority of chi-squares tend to be significant.

- Models with more variables often have larger chi-squares.

- When the data is skewed and highly kurtotic, the chi-square values are increased.

- When removing certain variables, it may be difficult to reproduce a correlation matrix.

There are three types of model fit that can be used to measure the fit of a model; being absolute fit, incremental fit, and parsimonious fit (Malhotra, 2010:725).

4.12.7.1 Absolute fit

In the goodness of fit, there is directly assessed how well a model accounts for covariances, and includes, SRMR, GFI, RMSEA, and chi-Squared test (Hooper *et al.*, 2008:53).

SRMR is the difference between observed correlation and predicted correlation and is a positively biased measure which has no penalty for model complexity. As SRMR is an absolute measure of fit, a zero value would indicate a perfect fit (Kenny, 2015). An SRMR value of < 0.08, but preferably ≤ 0.05, is required (Byrne, 2010:77-80). Furthermore, SRMR is an index of the mean of standardised residuals that occur between observed and hypothesised covariance matrices. SRMR is calculated as follows (Cangur & Ercan, 2015:156):

$$SRMR = \sqrt{\frac{\sum_{i=1}^{p}\sum_{j=1}^{i}\left[\left(s_{ij}-\hat{\sigma}_{ij}\right)/\left(s_{ii}s_{jj}\right)\right]^2}{p(p+1)/2}}$$

The goodness of fit index (GFI) is "a numerical summary of the discrepancy between the observed values and the values expected under a statistical model" (Maydeu-Olivares & Garcı´a-Forero, 2010:190). GFI should have a minimum value of 0.800 (Abedi *et al.*, 2015:27), but preferably higher than 0.850 (Maulana & Rufaidah, 2014:201). RMSEA is a goodness of fit measure in which the goal is for the population to have an approximate fit. This is due to the difficulty of an exact fit to occur in large populations (Kenny, 2015). RMSEA is both used for descriptive and inferential estimates. The most important features of RMSEA is that it is a standardised measure, not melded to the scales of latent or measured variables. Additionally, the properties of its approximate distribution are known which makes it possible for the researcher to obtain parametric confidence intervals, thus hypothesis testing can be conducted (Kelley & Lai, 2011:2). An RMSEA value of < 0.08 is required (Byrne, 2010:77-80). A chi-square/df (CS/df) ratio requires a value below 3 to be deemed acceptable (Santos *et al.*, 2015:214).

This study used SRMR, RMSEA and the CS/df ratio. Next, incremental fit.

4.12.7.2 Incremental fit

The incremental fit is comparable to R2, where a zero value indicates a non-viable model; a value of one signifies significance. Thus, the researcher would use the formula (Kenny, 2015):

$$\frac{\text{Worst Possible Model – My Model}}{\text{Worst Possible Model – Fit of the Best Possible Model}}$$

Moreover, the incremental fit measures the real model compared to a null model, in which the variables are assumed to be uncorrelated (Miles & Shevlin, 2007:870). Incremental fit consists of CFI and TLI (Cangur & Ercan, 2015:158; Hammervold & Olsson, 2012:7).

A confirmatory fit index (CFI) is used when comparing two different models. The CFI can be computed for saturated models, to compare the model to a non-saturated model (Kenny, 2015). The Tucker-Lewis Index (TLI) is an incremental fit index, which is not significantly affected by sample size. A higher value for this index will denote better fit; however, most researchers reject values above 0.97 (Cangur & Ercan, 2015:158). A CFI, IFI and TLI > 0.90 (preferably close to 0.95) indicate acceptable model fit (Byrne, 2010:77-80).

This study made use of CFI and TLI. Lastly, parsimonious fit.

4.12.7.3 Parsimonious fit

In a parsimonious fit, parsimony and fit are taken into account. Here, indices such as AIC and CAIC are included (Hammervold & Olsson, 2012:7).

AIC and CAIC are used to compare alternative models. The optimal model is that which returns the lowest value (Hooper *et al.*, 2008:56). Thus, in cases where two or more models have to be compared, two methods can be used: Akaike's information criterion (AIC), and consistent version of the AIC (CAIC) which is also called Bozdogan's Criterion (Byrne, 2008:96). AIC was proposed by Akaike in 1974 and gives a relative measure of the information lost (Lu & Cohen, 2015:319). Furthermore, AIC is a method used to determine which model fits the description of the research the best and it can be used to either reinforce or debunk previous findings (Snipes & Taylor, 2014:4). AIC does not make use of a null hypothesis, nor does it compute P values where significance is needed. AIC helps the researcher to determine which model has a likelihood of being correct and then quantifies to what extent that likelihood occurs (Motulsky & Christopoulos 2004:143). AIC is calculated as follows (Brown & Prescott, 2015:240):

$$AIC = log(L) - q$$

Smaller values of the AIC indicate better fit for a model. AIC is often used for generalisability; however, when the population is small, AIC tends to prefer simpler models. Thus, AIC should be used where research is conducted on larger populations (Preacher *et al.*, 2013:39). CAIC is similar to AIC in many instances; however, it assigns a greater penalty to complex models than AIC. CAIC is denoted by the following formula (Amos Development, 2011):

$$CAIC = C + q(lnN(1) + 1)$$

This study made use of AIC and CAIC to select the best model. The reliability and validity of the measurement model are discussed next.

4.12.8 Reliability and validity of the measurement model

There are various ways to measure validity and reliability within a model. Composite reliability (CR) is used to evaluate internal consistency. Individual indicator reliability and average variance extracted (AVE) are used to determine convergent validity. The Fornell-Larcker criterion and cross-loadings are used to evaluate the discriminant validity (Hair *et al.*, 2014a:100). Moreover, Fornell-Larcker criterion is used to assess to which degree there is a shared variance between latent variables in a model. Therefore, it states that the convergent validity of the measurement model can be determined by using the average variance extracted and composite reliability (Alarcon & Sanchez, 2015).

Composite reliability is used when the measurement model is multidimensional and measures the reliability of composites (Farmer & Farmer, 2014:38). Thus, it assesses whether the linear aggregations of indicators are equally weighed (Diefenbach, 2011:112). The formula used to calculate composite reliability is as follows (Malhotra, 2010:733):

$$(Fl1+Fl2+Fl3+...)2 / ((Fl1+Fl2+Fl3+...)2 + (err1+err2+err3+...))$$

When using composite reliability, the threshold value is 0.7; this means that the values must exceed 0.7 to be significant (Malhotra, 2010:734; McGill *et al.*, 2004:100). A value ranging between 0.6 and 0.7 is also deemed acceptable in cases where other indicators of the construct reliability are good enough (Pandey, 2016:184). However, values between 0.7 and 0.9 are desired and are more satisfactory. Values above 0.9 and especially above 0.95 are less desirable, as it would mean that the indicator variables are measuring the same phenomenon (Hair *et al.*, 2014b:102). Individual indicator reliability is used to measure the internal consistency reliability of an indicator (Gray & West-Gray, 2002). The minimum threshold for indicator reliability is 0.40 (Adaji & Vassileva, 2017:55), however, it is suggested that it should exceed 0.50 (King, 2009:344). Average variance extracted is used to assess the reliability of the reported constructs and reflects the overall variance in items which are accounted for by latent constructs (Cheung & Lee 2002:137). Simply put, it assesses the amount of variance that is captured in a set of items, relative to the measurement error. It is suggested that a score of > 0.7 is needed for complete standardises loadings, and > 0.5 for newly developed scales (Netemeyer *et al.*, 2003:153). The following formula is used to calculate the average variance extracted (Synodinos, 2014:119):

$$(Fl12+Fl22+Fl32+...) / ((Fl12+Fl22+Fl32+...) + (err1+err2+err3+...))$$

This concludes the final portion of Chapter 4. The chapter summary follows, providing a brief summary of the chapter.

4.13 CHAPTER 4 SUMMARY

This chapter described the research methodology followed in the empirical portion of this study. It investigated the research paradigm, marketing research, research design, the sampling procedure, data collection method, and data preparation. The statistical analysis was discussed, explaining the different statistical methods to be used in the study. The factor analysis portion explained numbers of factors, rotation of factors, communalities, and factor loadings to illumine the use of EFA. Confirmatory factor analysis was briefly discussed, followed by structural equation modelling. The statistical program, SPSS, and the add-on, AMOS version 25 for Microsoft Windows, were used in order to capture and analyse the data collected. The following chapter discusses the empirical findings of the pilot study and the main study.

CHAPTER 5 ANALYSIS AND INTERPRETATION OF EMPIRICAL FINDINGS

5.1 INTRODUCTION

In Chapter 4, the outline was given for the methodology to be used in Chapter 5. The latter will use the methodology of Chapter 4 to analyse the data and provide the empirical findings as set out in Section 1.3.3.

This chapter commences with the results of the pilot test (Section 5.2). Next, the data gathering process (Section 5.3) will be explained. This will be followed by the preliminary data analysis (Section 5.4), which will look at coding, data cleaning, missing data, test for normality, demographic analysis, and tabulation and variables. Section 5.5 consists of the exploratory factor analysis, which was conducted several times, each time removing several items. The descriptive statistics are discussed in Section 5.6, in which normality of the data was tested twice. In Section 5.7, common method bias is briefly discussed as well as how it was tested; following which, is the correlation analysis in Section 5.8. The juxtaposition of variables is discussed in Section 5.9 and discusses gender differences, differences by university, and differences by age. Structural equation modelling follows in Section 5.10. Here, the measurement model specification is discussed, followed by reliability and validity of the measurements. Next, the conceptual model, Model B1 is shown and discussed, after which Model B2 is shown. Model B2 is discussed briefly by addressing each path presented in the model. The last proposed model follows, Model C1, after which a brief discussion follows. A juxtaposition is conducted of Model B2, regarding the difference between female and male Generation Y students. Lastly, a conclusion was drawn for the chapter in Section 5.11

The statistical analysis in this chapter was conducted using SPSS version 25, alongside the AMOS package for Windows. Next, the pilot test results will be shown and analysed before the data from the main study is shown.

5.2 PILOT TEST RESULTS

After the pre-test was concluded and corrections made, a pilot test was undertaken to establish the validity of the questionnaire. The pilot test was conducted using 80 respondents at an HEI that did not form part of the main study. The main purpose of the pilot test was to ensure the internal consistency reliability of the scales that were used in the questionnaire.

After the cleaning stage, 64 of the 80 questionnaires were deemed viable. The results of the pilot test are shown in Table 5-1, where the number of variables for each construct, the sample size, mean, standard deviation, Cronbach's alpha, and average inter-item correlation can be seen.

Table 5-1:   **Pilot test results**

Items	Number of variables	n	Mean	Std. deviation	Cronbach's alpha	Average inter-item correlation
Section C						
C1 – C6	6	64	4.716	0.895	0.799	0.409
C7 – C11	5	64	5.088	0.720	0.777	0.427
C12 – C15	4	64	4.574	1.023	0.791	0.486
C16 – C18	3	64	4.802	1.021	0.816	0.598
C19 – C23	5	64	5.097	0.824	0.878	0.596
C24 – C31	8	64	4.664	0.680	0.787	0.315
C32 – C39	8	64	4.609	1.086	0.930	0.626
C40 – C48	9	64	5.339	0.614	0.891	0.475
C49 – C52	4	64	4.703	0.970	0.798	0.497
C53 – C60	8	64	5.111	0.680	0.861	0.437

The data, as seen in Table 5-1, shows a mean range between 4.609 and 5.339. Next, the standard deviations range from 0.614 to 1.086. The Cronbach's alpha shows that all constructs are above 0.777, which indicates that the internal consistency reliability of the constructs ranged from acceptable to excellent (George & Mallery, 2016:240). Lastly, all inter-item correlation ranges show sufficient relationship between the items in each construct (Spiliotopoulou, 2009:12). Therefore, the decision was made to proceed with the main study, as the constructs show to be reliable and were based on studies which showed their efficiency and reliability. (Wallace *et al*., 2014; Rauniar *et al*., 2014; Tsimonis & Dimitriadis, 2013; Laroche *et al*., 2013; Badrinarayanan & Laverie, 2013; Ashley *et al*., 2011; Sahin *et al*., 2011; Lee *et al*., 2010).

5.3   DATA GATHERING PROCESS

Data for this study were collected from Generation Y students, all enrolled at one of three HEI campuses located in Gauteng Province. A convenience sample was used where a self-administered questionnaire, based on a Likert-scale, was implemented. After clearance and permission stages, questionnaires were given to participating lecturers. The lecturers distributed the questionnaires to students who volunteered to partake in the study. Anonymity and confidentiality were guaranteed to the volunteers. To further protect the identity and data the

students provided, the HEI campuses are listed as HEI A, HEI B, and HEI C on the questionnaire in the Annexure, as well as in the demographic portion of this chapter.

As per the layout in Chapter 4 and the sample size proposal in Chapter 1, Section 1.5.2.4,600 questionnaires were distributed. A fully representative distribution was not possible in this instance, but a minimum sample size of 140 per HEI campus was deemed sufficient representation. A representation of 167 (HEI A), 144 (HEI B), and 208 (HEI C) were achieved. The total number of viable questionnaires collected was 519.

5.4 PRELIMINARY DATA ANALYSIS

This section focusses on the preliminary data analysis, which includes coding (Section 5.4.1), data cleaning (Section 5.4.2), missing data (Section 5.4.3), testing for normality (Section 5.4.4), demographic analysis (5.4.5), and tabulation and variables (5.4.6).

5.4.1 Coding

The questionnaire used in this study comprised three sections, Section A, Section B, and Section C.

Section A requested participants to share demographical information. Section B aimed to find the preferred smartphone brand of Generation Y students, as well as which social media platforms they use to follow smartphone brands. Section C formed the bulk of the questionnaire and made up the empirical portion of this study. As such, Section C measured brand loyalty (BL), brand experience (BE), perceived usefulness, anticipated benefits (AB), brand activities (BA), brand community (BC), intention to be involved (ITBI), brand trust (BT), and commitment (C)as independent variables; advocacy intention (AI) was the dependent variable.

The following table shows the layout of the demographics section (Section A) of the questionnaire.

Table 5-2:   Section A, Demographics

Code	Variable	Likert items
A 1	Country of origin	South Africa (1); Other (2)
A 2	Province of origin	Eastern Cape (1); Free State (2); Gauteng Province (3); KwaZulu-Natal (4); Limpopo (5); Mpumalanga (6); Northern Cape (7); North West (8); Western Cape (9); Other (10)
A 3	Name of institution	Traditional University (1); Comprehensive University (2); University of Technology (3)
A 4	Gender	Female (1); Male (2)
A 5	Ethnic group	African (1); Asian (2); Coloured (3); Indian (4); White (5); Other (6)
A 6	Home language	Afrikaans (1); English (2); Ndebele (3); Sepedi (4); Sesotho (5); Swazi (6); Tsonga (7); Tswana (8); Venda (9); Xhosa (10); Zulu (11); Other (12)
A 7	Age	< 18 (1); 18 (2); 19 (3); 20 (4); 21 (5); 22 (6); 23 (7); 24 (8); 24 < (9)
A 8	I make use of the following	Facebook (1); Twitter (2); Instagram (3); YouTube (4); Google Plus (5); LinkedIn (6)

The following table shows Section B, in which students indicated which smartphones and which social media sites they preferred.

Table 5-3:   Section B, Smartphone and social media preferences

Code	Item	Variable	Likert items
B1	Samsung		
B2	Apple		
B3	BlackBerry		
B4	Nokia		Strongly disagree (1); Disagree (2);
B5	LG	I prefer using this smartphone brand	Slightly disagree (3); Slightly agree
B6	Sony		(4); Agree (5); Strongly agree (6)
B7	Xiaomi		
B8	HTC		
B9	Huawei		

Table 5-3:   Section B, Smartphone and social media preferences (continued)

Code	Item	Variable	Likert items
B10	Facebook		
B11	Twitter		Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
B12	Instagram	I prefer to follow brands on the following social media platforms	
B13	Google Plus		
B14	YouTube		

The following table shows Section C, which was the main focus of the study. It contains the independent and dependent variables used for the empirical portion of the study. Abbreviations were used for the value assigned to responses in Table 5-4 as well.

Table 5-4:   Section C, BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI

Code	Construct measured	Value assigned to responses
CA1		
CA2		
CA3	Brand loyalty	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CA4		
CA5		
CA6		
CB7		
CB8		
CB9	Brand experience	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CB10		
CB11		
CC12		
CC13	Perceived usefulness	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CC14		
CC15		
CD16		
CD17	Anticipated benefits	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CD18		
CE19		
CE20		
CE21	Brand activities	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CE22		
CE23		

Table 5-4: **Section C, BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI (continued)**

Code	Construct measured	Value assigned to responses
CF24 **CF25** **CF26** **CF27** **CF28** **CF29** **CF30** **CF31**	Brand community	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CG32 **CG33** **CG34** **CG35** **CG36** **CG37** **CG38** **CG39**	Intention to be involved	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CH40 **CH41** **CH42** **CH43** **CH44** **CH45** **CH46** **CH47** **CH48**	Brand trust	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CI49 **CI50** **CI51** **CI52**	Commitment	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
CJ53 **CJ54** **CJ55** **CJ56** **CJ57** **CJ58** **CJ59** **CJ60**	Advocacy intention	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)

5.4.2 Data cleaning

The data cleaning of the questionnaire consisted of discarding questionnaires completed by respondents younger than 18 and older than 24. Furthermore, where respondents left more than 10 per cent of the questionnaire unanswered, the questionnaires were discarded. After the data cleaning process, 519 questionnaires were deemed valid. The next section discusses the missing data of the questionnaire, as well as how they were analysed and remedied.

5.4.3 Missing data

After the coding and cleaning of data, addressing missing data was the next step. There was a total of 160 missing entries in Section B and 201 missing entries in Section C. In addressing the missing data, expectation-maximisation was utilised to fill in the missing data with the most likely entry (UC, 2017). However, to conduct an expectation-maximisation for the missing data, sample size must be adequate, and data should be missing at random (MAR) (Roni, 2014:15). The missing data in the study were assessed using Little's MCAR test to assess whether the data were missing completely at random (MCAR) or MAR, for an estimation maximisation to be conducted. The hypotheses for the missing data were as follows:

$H_0 1$: The missing data for the factors brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention were not MCAR.

$H_a 1$: The missing data for the factors brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, advocacy intention were MCAR.

Table 5-5 shows the results from Little's MCAR test, which shows the factor, the significance, the mean missing percentage, as well as the accepted hypothesis for each factor.

Table 5-5:   Little's MCAR test

Factor	Sig	Mean missing percentage**	Hypothesis accepted
Brand loyalty	0.208	0.7%	H_a1
Brand experience	0.722	0.4%	H_a1
Perceived usefulness	0.284	0.6%	H_a1
Anticipated benefits	0.983	0.7%	H_a1
Brand activities	0.038*	0.6%	H_01
Brand community	0.856	1.1%	H_a1
Intention to be involved	0.002*	0.9%	H_01
Brand trust	0.000*	0.6%	H_01
Commitment	0.052	0.4%	H_a1
Advocacy intention	0.001*	0.5%	H_01

*Significant at $p = 0.05$

**Rounded to the first decimal

The total for mean missing percentage is higher than the 0.65 per cent missing data as the mean for each factor was used

As seen in Table 5-5, the null hypothesis, H_01, was accepted for brand activities, intention to be involved, brand trust, and advocacy intention. The alternate hypothesis, H_a1, was accepted for brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand community, and commitment.

Where the factors fell into the H_01 hypothesis, a Separate-variance t-test was conducted as per Moss (2016a), to ascertain whether the data was MAR. A significance value of $p = 0.05$ was set, meaning that all items within a factor load above $p = 0.05$ were sufficiently MAR. The minimum requirement set for missing data was 1 per cent (Meyers *et al*., 2013:83), which meant that wherever more than 1 per cent of data were missing, the Separate-variance t-test was conducted.

The hypotheses set out to test for MAR were as follows:

H_02: The missing data for the factors brand activities, intention to be involved, brand trust, advocacy intention, were not MAR.

H_a2: The missing data for the factors brand activities, intention to be involved, brand trust, advocacy intention, were MAR.

Table 5-6 shows the MAR hypotheses, the factors and the accepted hypothesis for each.

Table 5-6: MAR Hypotheses

Factor	Hypothesis accepted after Separate-variance t-test
Brand activities	H_a2
Intention to be involved	H_a2
Brand trust	H_a2
Advocacy intention	H_a2

As seen in Table 5-6, the data for hypothesis H2 was accepted, and thus H_a2 for the factors brand activities, intention to be involved, brand trust, and advocacy intention. Therefore, as either MCAR or MAR was present for each of the factors, and the missing data attributing for less than 2 per cent (Rubin *et al.*, 2007:73; 75) in each factor, it was concluded that an expectation-maximisation could be conducted.

Table 5-7 shows the missing entries for each section, the total entries, and the percentage of missing entries.

Table 5-7: Missing entries

Section	Missing entries	Total entries	Percentage missing
B	160	7266	2.2
C	201	31140	0.65

The questions which were left blank were completed using expectation-maximisation in SPSS. In total, 160 blank entries from Section B and 201 blank entries from Section C were filled in using expectation maximisation. Therefore, 2.2 per cent of Section B was calculated using expectation-maximisation and similarly for 0.65 per cent of Section C.

As can be seen from Table 5-7, 160 of 7266 entries were missing for Section B, and 201 of 31140 entries were missing from Section C. The next section tested for normality; this served to ensure that the study would not run into problems at a later stage.

5.4.4 Test for normality

Several of the analyses conducted depended on the normality of the data set. Hence, a QQ-Test, skewness and kurtosis tests were conducted. The results of the normality test showed that outliers should be removed in order to improve data quality.

The outliers were removed by ascertaining which questionnaires had extreme outliers according to the descriptive exploration. A Z-score was calculated for each variable with extreme outliers. Where two variables had the same outlier, the outliers were removed from the dataset and excluded from further data analysis. Table 5-8 shows the Z-score, the outliers according to the descriptive exploration, as which outliers both concurred on. The following shows the questionnaire numbers for the questionnaire removal.

Table 5-8:   Test for normal distribution

Z-score	Outliers according to descriptive exploration	Outliers according to Z-score and descriptive exploration
69	148	148
112	195	195
148	205	205
195	443	443
205		
302		
376		
443		
465		

As can be seen from Table 5-8, questionnaires 148, 195, 205, and 443 were removed from the study due to data extremes. Next, normality was analysed again assessing the skewness and kurtosis levels and using the QQ-plot method. The results are shown in Table 5-9.

Table 5-9:   Test for normal distribution

Factor	Skewness	Kurtosis	QQ-Plot
CA	-0.928	1.320	Sufficient normality
CB	1.073	1.616	Sufficient normality
CC	-0.675	0.250	Sufficient normality
CD	-1.023	1.773	Sufficient normality
CE	-1.111	1.318	Sufficient normality
CF	-0.510	0.091	Sufficient normality
CG	-0.860	1.116	Sufficient normality
CH	-1.095	1.127	Sufficient normality
CI	-1.040	1.495	Sufficient normality
CJ	-0.768	0.449	Sufficient normality

As per Table 5-9, the skewness and kurtosis levels were both in the -2 to 2 range for normality, and the QQ-plot showed sufficient normality to continue. As normality was established, the next section focusses on the demographic analysis portion of the study.

5.4.5   Demographic analyses

This section discusses the demographic analysis of the main study consisting of several key indicators. These indicators include country of origin, province of origin, the name of the institution (which have been changed to protect the identities of students), gender, ethnicity, home language, age, and social media usage.

Of the 600 questionnaires which were distributed, 579 were returned. After cleaning and removal of outliers, 515 questionnaires formed the pool from which the demographical statistics were gathered.

The following figures show pie charts that demonstrate the allocation of the demographical information gathered per question of the questionnaire. The first chart shows the country of origin of Generation Y students who participated in the study. The country of origin was the first question in Section A, and the choices were 'South Africa' and 'Other'.
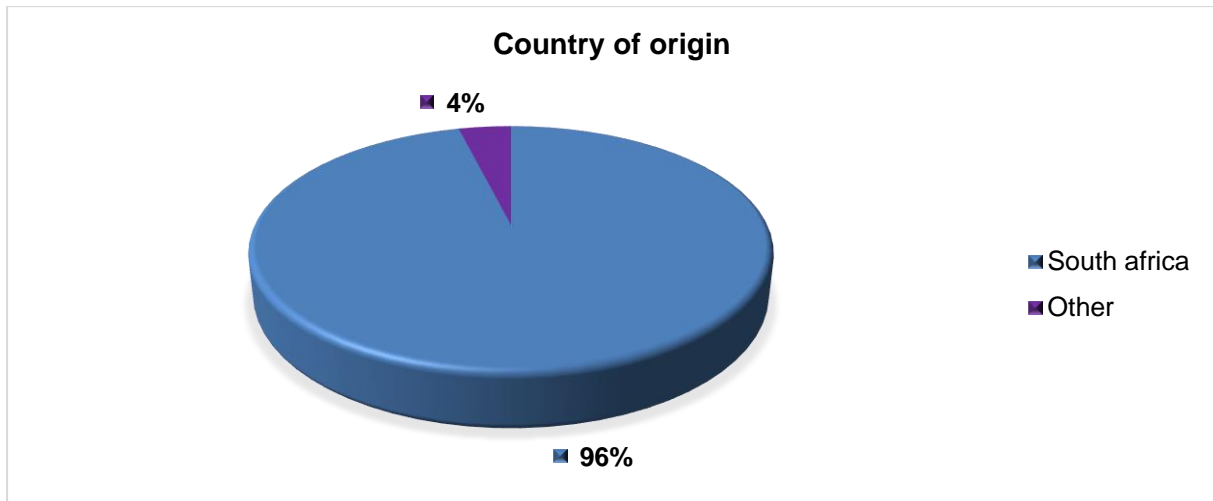
Figure 5-1:   Country of origin

Figure 5-1 shows the majority of Generation Y students stated that they were from South Africa (96%), and the rest (4%) indicated that they were from a different country. The students were not asked to specify from which country they were, as the questionnaire was strictly quantitative. The country of origin was to be expected as the study was conducted in South Africa. However, it does show that there are a fair number of foreign students studying in South Africa (20 international students compared to 495 South African students).

The next demographic question was concerned with the province from which the students each student came. The options from which the students could choose were, 'Eastern Cape', 'Free State', 'Gauteng Province', Kwazulu-Natal', 'Limpopo', 'Mpumalanga', 'Northern Cape', 'North West', 'Other', and 'Western Cape'. The question did not specify whether students were born in the province; it merely asked for a province of origin.
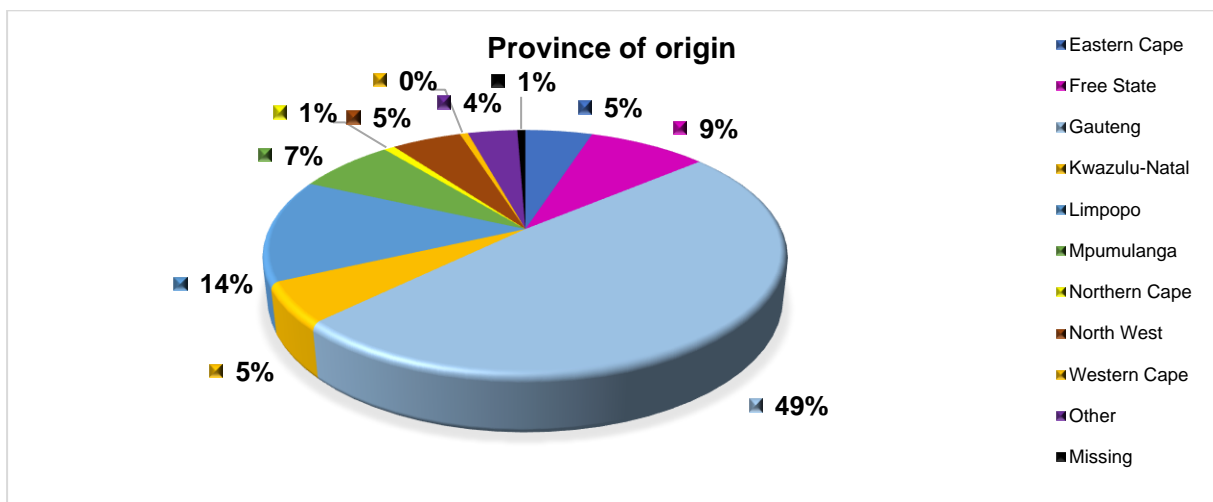
Figure 5-2:   Province of origin

In Figure 5-2 it is shown that the majority of students were from Gauteng Province (49%), which was expected as the study was conducted at universities from Gauteng Province. Following, were Limpopo (14%), Free State (9%), and Mpumalanga (7%). Next, North West (5%), Eastern Cape (5%), KwaZulu-Natal (5%), and Other (4%) had near similar representations. Finally, Northern Cape (1%) and Western Cape (0%; rounded-off, there were a total of three students out of the 515 in this category) made up the least number of students. Missing data accounted for one per cent of the data. The data showed a representation from all provinces in South Africa; however, several of the provinces had only minute representation.

In 2017, there were 26 HEIs across South Africa, spread among the provinces. This study used three HEIs based in Gauteng Province. The names of the universities were changed to protect the identity of students and the origin of the data. For the purposes of the study, the universities will be distinguished by the category of the institution of which they form a part; namely, HEI A, HEI B, and HEI C.
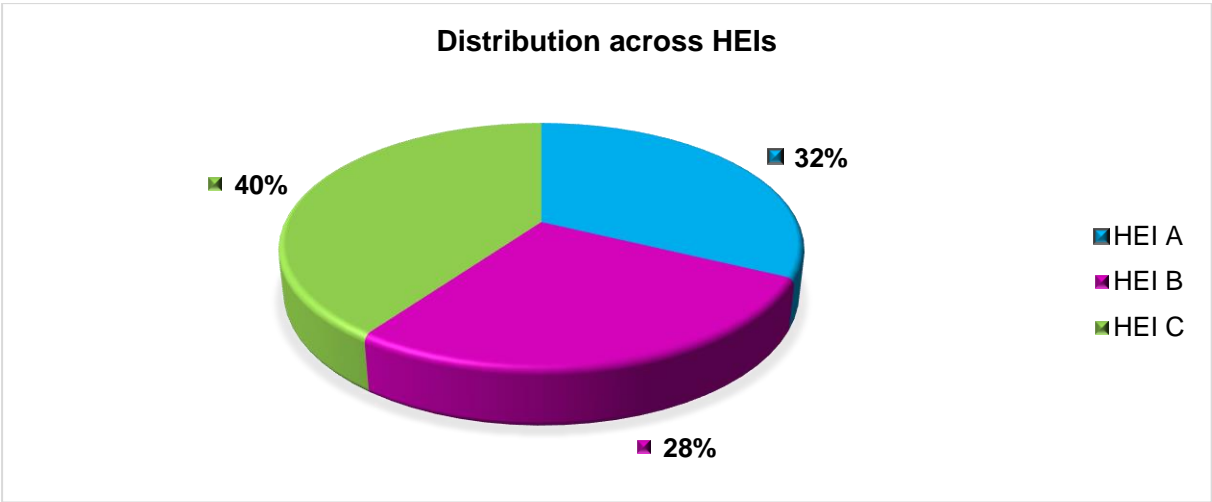
Figure 5-3:   Distribution across HEIs

As per Figure 5-3, the highest representation of students was from the University of Technology (40%), followed by the Traditional University (32%), and finally, the Comprehensive University (28%). The representation of the three universities was deemed sufficient for this study. Interestingly, the distribution of students from other countries showed that three students were from Traditional University, 12 from the Comprehensive University, and 5 from the University of Technology.

Figure 5-4 depicts the gender distribution amongst the students that partook in the study.
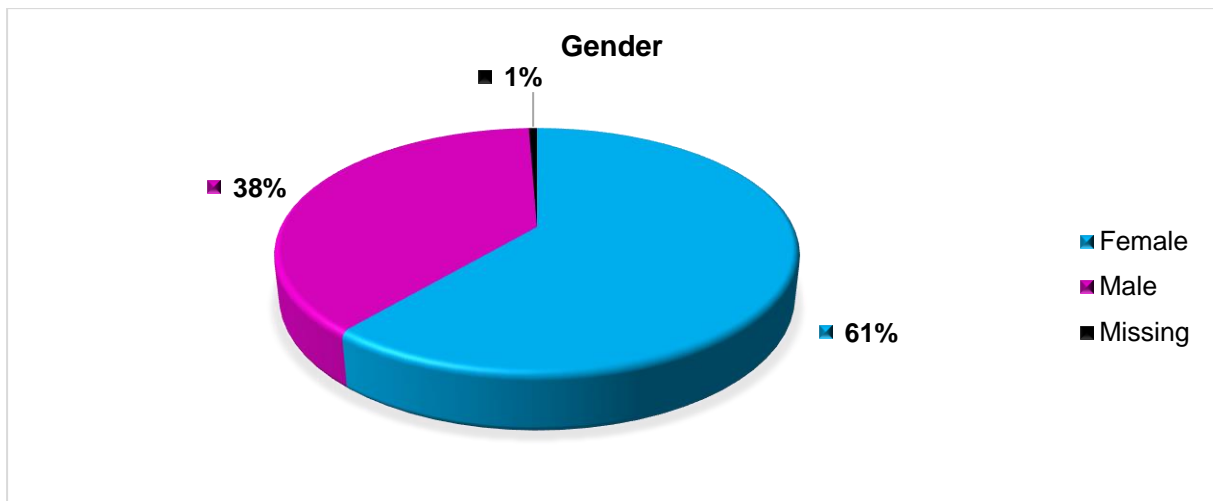
Figure 5-4: **Gender**

The gender distribution of students showed the majority were female (61%). The male students (38%) and missing data (1%) constituted the rest. The difference in representation could be ascribed to several factors, such as subject choices, province of choice, student academic year, among others.

Figure 5-5 shows the results of the ethnicity distribution amongst the students.
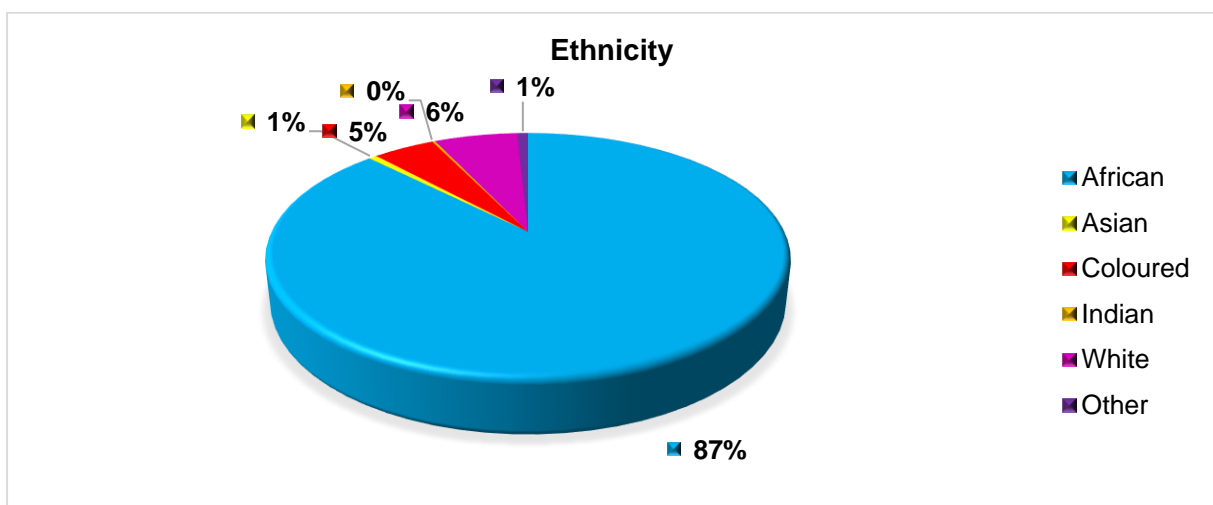
Figure 5-5: **Ethnicity**

African students made up the majority of students (87%), followed by white students - albeit with a significantly lower representation (6%). Coloured students represented the next largest category (5%), after which came the Asian students (1%) and students who identified with another ethnicity (Other = 1%).

The home language options were any of the 11 national languages of South Africa, and 'Other'. The national language options were 'Afrikaans', 'English', 'Ndebele', 'Sepedi', 'Sesotho', 'Swazi', 'Tsonga', 'Tswana', 'Venda', 'Xhosa', and 'Zulu'.
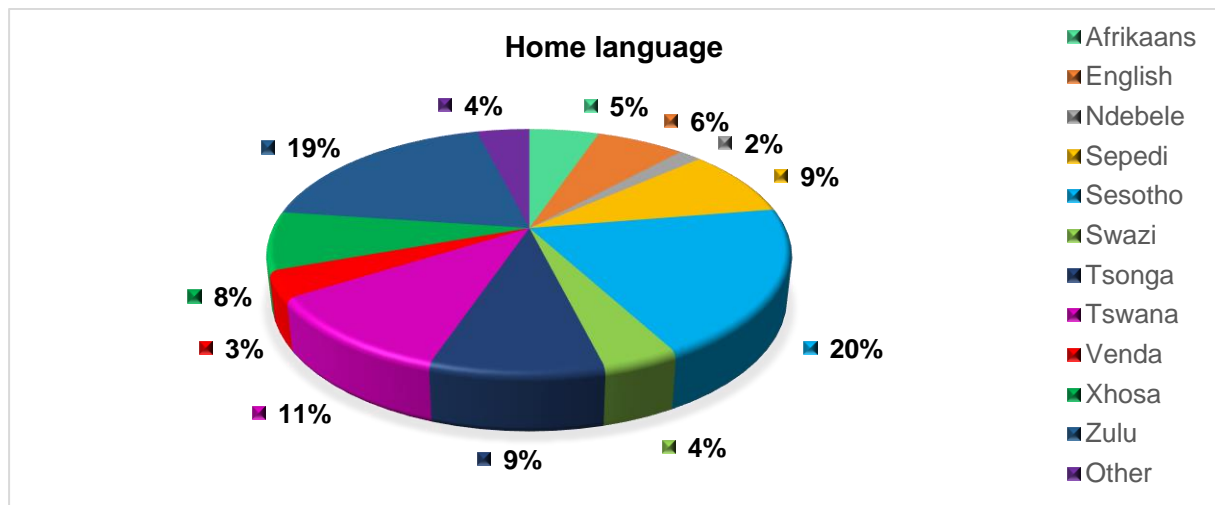
Figure 5-6:   Home language

It can be seen in Figure 5-6 that the most common home language among the students was Sesotho (20%), closely followed by Zulu (19%). Trailing closely behind were Tswana (11%), Sepedi (9%), Tsonga (9%), and Xhosa (8%). Following these were English (6-7%), and Afrikaans (5%), Swazi (4%), Other (4%), Venda (3%), and Ndebele (2%). Therefore, all languages were represented.

The age categories which students could fall into ranged from below 18years of age to 24 years old and above. Students under the age of 18 are not lawfully adults; as such their questionnaires were discarded from the study. Students over the age of 24 could possibly become outliers or form too small a representation; as such, their questionnaires were removed also. Those with missing age data were still used under the assumption that they would fall into the 18 to 24 brackets, as the overwhelming majority of students ranged between these age groups.
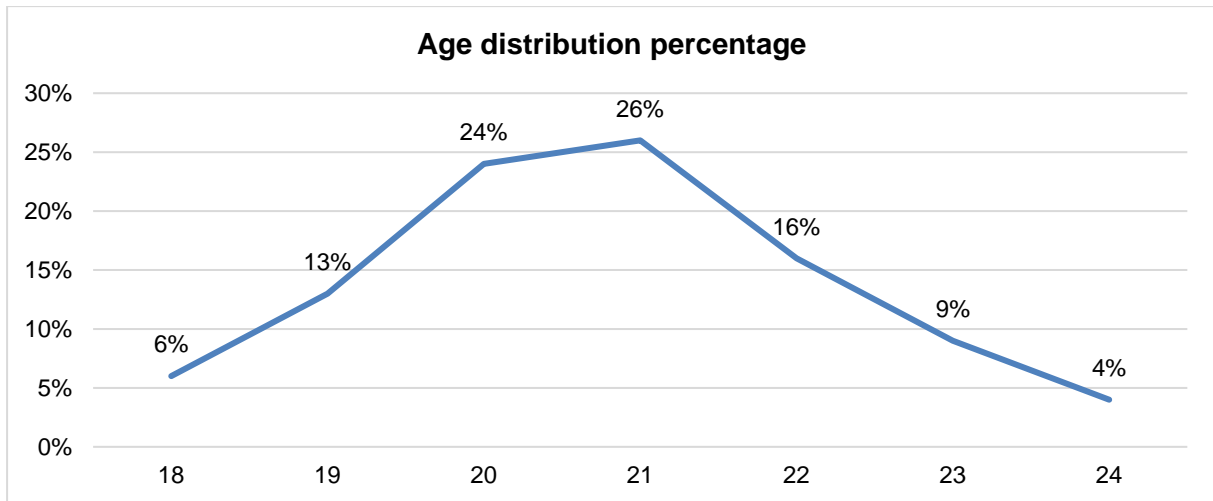
Figure 5-7: Age distribution: rise and decline

The majority of students stated that they were 21 (26%) and 20 (24%) years of age. Next, ages 22 (16%) and 19 (13%) had a relatively similar representation, followed by ages 23 (9%) and 18 (6%). The final viable option, age 24, had the lowest representation (4%). Missing data accounted for 2 per cent of the overall data.

The final metric used in the demographic section aimed to analyse the social media usage of the Generation Y students surveyed. This showed the proportion of students who made use of each of the following sites listed: Facebook, Google Plus, Instagram, LinkedIn, Twitter, and YouTube. Figure 5-8 below shows the sites according to their popularity.
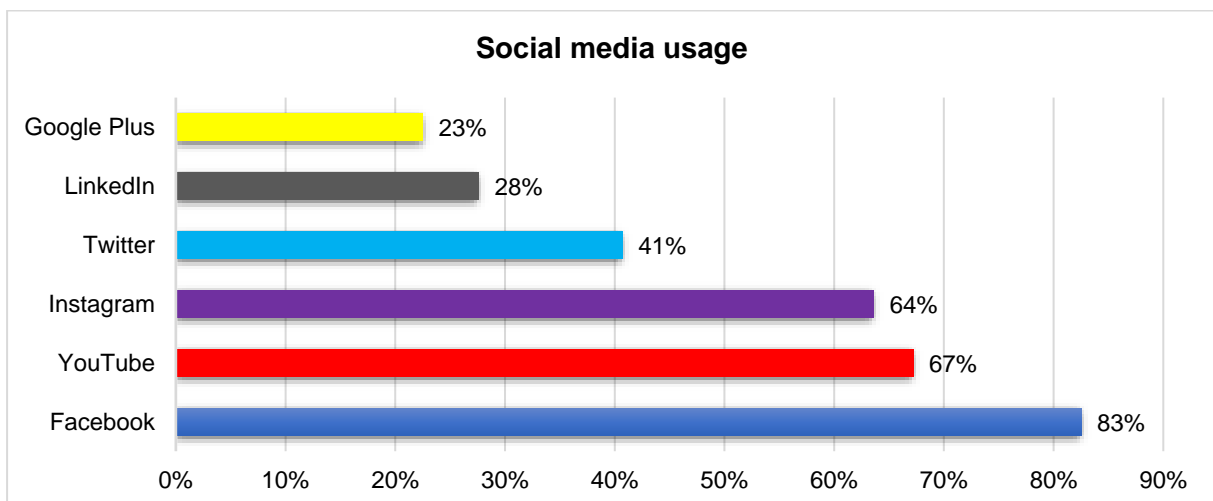
Figure 5-8: Social media usage

Facebook (83%) was the most popular social media site. YouTube (67%) was the second most popular, followed closely by Instagram (64%). Twitter (41%) had a relatively low, and LinkedIn

even lower, as only 28 per cent of students make use of it. The least popular social media site is Google Plus (23%).

5.4.5.1 Demographic analysis summary

This concludes the demographics portion of this study. A few highlights from the demographics portion of the study were that the representation of female to male students was similar to national census data; ethnicity representation had a higher than average number of African students, and near zero Indian representation. Sesotho had a much higher representation than what was reflected in South Africa. Age dropped off towards the age of 24, relative to younger ages (18 - 23). Foreign students seemed to prefer the Comprehensive University; however respondent numbers were too low to make a statistical assumption. Finally, a high number of students made use of Facebook, and few made use of LinkedIn, an oddity, considering that the study made use of students.

5.4.6 Tabulation and variables in Section B

After coding, cleaning, and addressing missing data, the tabulation of variables followed, shown in the frequencies table (Table 5-10). The abbreviations used are: SD = Strongly disagree; D = Disagree; SLD = Slightly disagree; SLA = Slightly agree; A= Agree; SA = Strongly agree. The first part looks at preferred smartphone brands and the second at preferred social media platforms to follow brands.

Table 5-10: Frequencies, Section B

Section B							
Code	Brand	SD	D	SLD	SLA	A	SA
I prefer using this smartphone brand							
B1	Samsung	15	13	13	48	162	264
B2	Apple	30	27	25	53	117	263
B3	BlackBerry	135	119	110	93	37	21
B4	Nokia	102	73	104	96	79	61
B5	LG	118	83	118	117	58	21
B6	Sony	55	48	52	120	140	100
B7	Xiaomi	262	121	72	39	18	3
B8	HTC	190	118	99	69	28	11
B9	Huawei	45	36	46	106	147	135

Table 5-10:   Frequencies, Section B (continued)

Code	Brand	SD	D	SLD	SLA	A	SA
I prefer to follow brands on the following social media platforms							
B10	Facebook	35	11	23	51	127	268
B11	Twitter	88	50	60	100	102	115
B12	Instagram	36	21	22	50	120	266
B13	Google Plus	101	53	78	107	85	91
B14	YouTube	20	10	21	40	124	300

The frequencies are discussed next in the figures that follow.

5.4.6.1   Smartphone usage

The first part of Section B aimed to assess which smartphones Generation Y students preferred. Their options were taken from the most popular brands globally, namely, Apple, BlackBerry, HTC, Huawei, LG, Nokia, Samsung, Sony, and Xiaomi. The respondents had to rate each of these options on a six-point Likert scale; that is, Strongly Disagree (1), Disagree (2), Slightly Disagree (3), Slightly Agree (4), Agree (5), and Strongly Agree (6).

In South Africa, the brands in descending order of popularity are Samsung, Apple, Huawei, Nokia and BlackBerry, Sony, and LG (SAMR, 2017). The following figure illustrates the smartphone choices of the Generation Y students surveyed.

Preferred smartphone brand

Xiaomi 1,91
HTC 2,34
Blackberry 2,69
LG 2,96
Nokia 3,31
Sony 4,05
Huawei 4,32
Apple 4,92
Samsung 5,18

1 - Strongly disagree 2 - Disagree 3 - Slightly disagree
4 - Slightly agree 5 - Agree 6 - Strongly agree
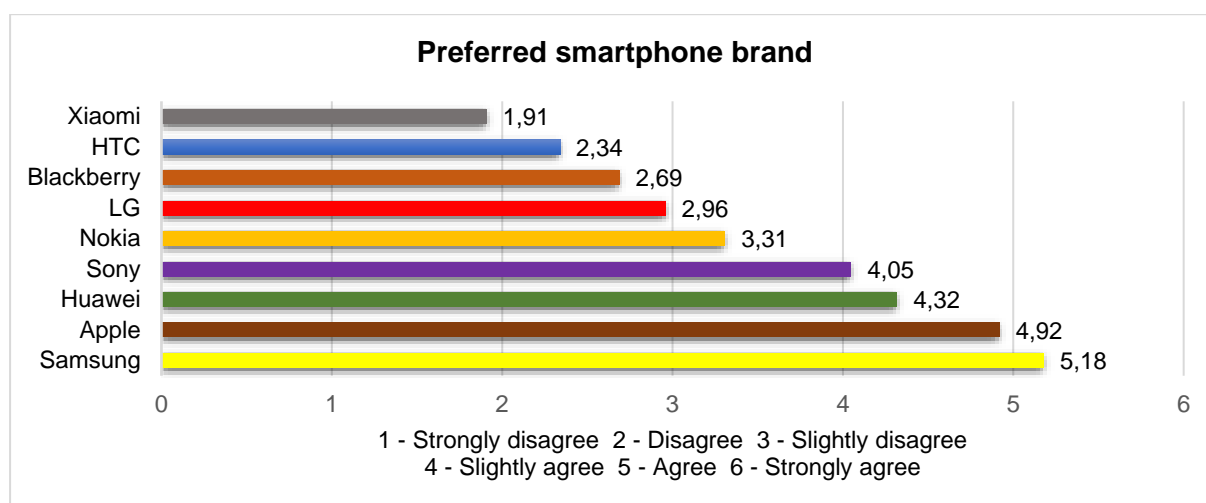
Figure 5-9:   Preferred smartphone brand among Generation Y students

The smartphone brand popularity amongst Generation Y students, as shown in Figure 5-9, lines up relatively well with that of South Africans at large. Amongst the students, the smartphone

brands in descending order of popularity were Samsung, Apple, Huawei, Sony, Nokia, LG, BlackBerry, HTC, and Xiaomi.

It is important to note that this study did not gauge the current usage of the smartphone brands, merely the preference thereof; therefore, it could not be concluded whether the students that were surveyed actually use the brands they like. In the next section, the social media usage of Generation Y students is discussed.

5.4.6.2 Social media usage

The next part of Section B aimed to ascertain which social media platforms Generation Y students use to follow their favourite brands. The options they had to evaluate using a Likert scale, as before, were Facebook, Google Plus, Instagram, Twitter, and YouTube.

The most popular social media platforms globally during this study were, in descending order, Facebook; YouTube; Instagram; Twitter; Reddit; Vine; Pinterest; Ask.fm; Tumblr; Flickr; Google Plus; LinkedIn (Kallas, 2017). However, for the purposes of this study, only Facebook, YouTube, Instagram, Twitter, and Google Plus were included, as indicated in Figure 5-10. This study recognises the fact that Google Plus would be shut down (Wong & Solon, 2018); however, data regarding Google Plus were still included.

Preferred social media platform to follow brands

Platform	Value
Google Plus	3,57
Twitter	3,82
Instagram	4,93
Facebook	5,00
Youtube	5,21

1 - Strongly disagree 2 - Disagree 3 - Slightly disagree
4 - Slightly agree 5 - Agree 6 - Strongly agree
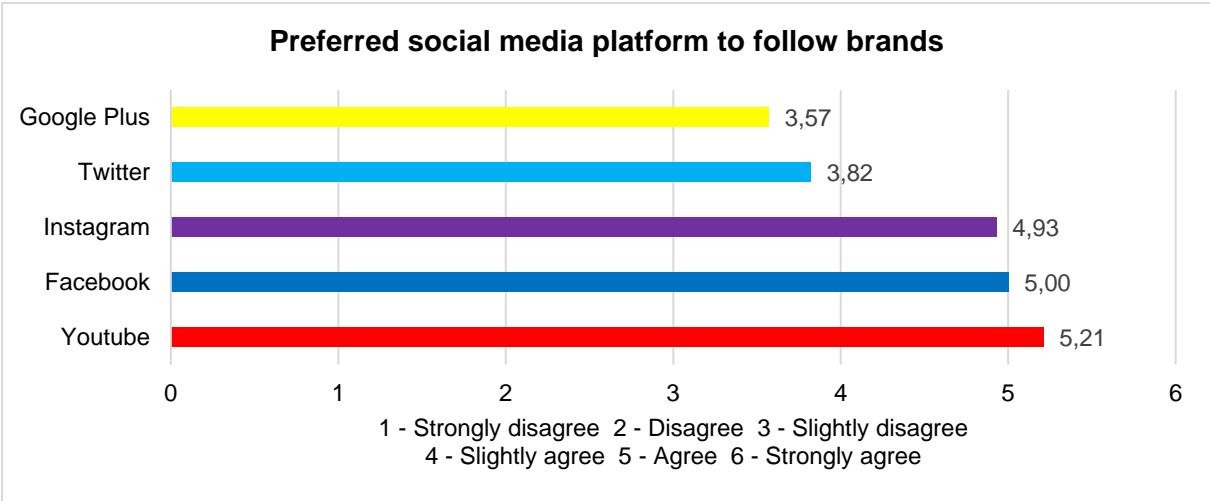
Figure 5-10:   Preferred social media platform

Figure 5-10 shows the ranking of YouTube, Facebook, Instagram, Twitter, and Google Plus. A possible explanation for this trend was the increase in popularity of video and video content (Bowman, 2017), secondly, the sheer size and popularity of Facebook (Kallas, 2017), and lastly, the increasing adoption and penetration of smartphones (Wu, 2017).

As seen in Figure 5-10, students showed preference to YouTube, Facebook, and Instagram; they were less positive about Twitter and Google Plus. This ailing trend of Google Plus was shared worldwide as, at the end of 2018, it was announced that Google Plus would be shut down, following the breach of the user information of 500,000 users (Wakabayashi, 2018). It has been surmised that the data breach was only part of the decision to shut down Google Plus; it also showed low usage statistics, and 90 per cent of Google Plus users only stayed on the site for less than a minute (Carman, 2018).

5.4.6.3 Summary of Section B

This concludes the investigation and analysis of Section B of the main study. A few highlights in Section B were the fact that Samsung, Apple, and Huawei were the most preferred brands, nationally and globally. Next, BlackBerry's significant decline in popularity relative to the past in which it was once one of the most popular choices in South Africa (Business Tech, 2012). Furthermore, Nokia appeared to be gaining ground again, even though they have had a tumultuous few years (Cheng, 2014). Lastly, Xiaomi was barely preferred by any Generation Y student, despite its popularity in China and India (Baxi, 2017).

YouTube seemed to be more popular than Facebook in following brands. Contrastingly, the general popularity of Facebook surpassed that of YouTube (Kallas, 2017). Furthermore, even though the use of Google Plus was in decline globally (Price, 2017), some students still made use of it in South Africa. Lastly, despite Instagram being younger than YouTube and Facebook (Johnson, 2016), it challenged both for superiority, globally (Wagner, 2017) and among Generation Y students, as seen in this study.

5.4.7 Tabulation and variables, Section C

Table 5-11 shows the tabulation and variables for Section C of the questionnaire. A mean was also included in the tabulation and variables to draw conclusions based on the preferences which students indicated. The table Scale items are SD (strongly disagree), D (disagree), SLD (slightly disagree), SLA (slightly agree), A (agree), SA (slightly agree).

This section fulfils Section 1.3.3, objective 1, which stated: "Determine Generation Y students' brand loyalty, brand experience, perceived usefulness anticipated benefits, view on brand activities, the perception of brand community, intention to be involved in social media pages of smartphone brands, brand trust, commitment, advocacy intention."

Table 5-11:   Frequencies, Section C

			Section C				
Scale item	SD	D	SLD	SLA	A	SA	Mean
Brand loyalty							**4.906**
C1	11	11	11	62	171	249	5.17
C2	13	21	33	89	181	178	4.82
C3	8	14	40	131	180	142	4.72
C4	3	8	14	78	189	223	5.16
C5	4	11	15	53	191	241	5.21
C6	39	42	46	110	126	152	4.36
Brand experience							**5.093**
C7	5	10	13	49	117	261	5.26
C8	1	3	5	33	184	289	5.45
C9	4	7	23	82	177	222	5.11
C10	10	10	47	123	171	154	4.74
C11	7	18	38	87	173	192	4.90
Perceived usefulness							**4.615**
C12	15	29	38	122	155	156	4.63
C13	13	25	54	132	173	118	4.52
C14	14	25	42	125	190	119	4.57
C15	12	15	38	114	188	148	4.74
Anticipated benefits							**4.883**
C16	7	11	22	101	210	164	4.92
C17	5	14	36	123	215	122	4.74
C18	3	6	30	81	227	168	4.99
Brand activities							**5.124**
C19	1	4	25	79	222	187	5.09
C20	2	6	20	87	169	231	5.15
C21	3	5	20	79	175	233	5.17
C22	3	6	30	67	170	239	5.16
C23	8	4	30	87	167	219	5.05

Table 5-11:   Frequencies, Section C (continued)

Scale item	SD	D	SLD	SLA	A	SA	Mean
Brand community							**4.708**
C24	5	12	33	119	199	147	4.82
C25	5	21	56	125	204	104	4.58
C26	5	12	52	162	188	96	4.56
C27	0	8	27	128	197	155	4.90
C28	12	14	55	124	193	117	4.60
C29	3	6	23	106	208	169	4.97
C30	21	29	55	123	170	117	4.44
C31	8	15	42	111	174	165	4.79
Intention to be involved							**4.847**
C32	13	23	44	119	158	158	4.67
C33	7	16	38	110	180	164	4.81
C34	5	13	47	104	194	152	4.80
C35	3	13	23	87	203	186	5.00
C36	10	17	49	129	185	125	4.63
C37	4	10	33	94	211	163	4.92
C38	10	14	39	102	167	183	4.85
C39	6	6	16	87	185	215	5.10
Brand trust							**5.252**
C40	7	12	23	60	172	241	5.14
C41	2	3	16	47	188	259	5.32
C42	3	5	20	83	193	211	5.12
C43	2	11	17	70	164	251	5.21
C44	1	4	14	70	154	272	5.31
C45	1	3	24	59	168	260	5.27
C46	2	5	20	75	158	255	5.23
C47	2	2	21	56	178	256	5.28
C48	2	6	11	51	137	308	5.41
Commitment							**4.743**
C49	8	16	30	76	206	179	4.93
C50	7	14	37	120	190	147	4.77
C51	13	10	52	127	189	124	4.63
C52	18	18	47	118	163	151	4.64

Table 5-11:   Frequencies, Section C (continued)

Scale item	SD	D	SLD	SLA	A	SA	Mean
Advocacy intention							**5.077**
C53	5	10	18	57	183	242	5.19
C54	4	5	23	78	198	207	5.10
C55	3	6	26	113	184	183	4.98
C56	1	4	17	88	207	198	5.12
C57	2	5	27	85	202	194	5.06
C58	1	3	22	74	212	203	5.14
C59	4	8	28	92	197	186	5.00
C60	8	7	24	88	182	206	5.03

Means were calculated for each of the ten constructs and, as seen in Figure 5-11, all means recorded results above four. The lowest mean was calculated for PU (mean = 4.615) and BC (mean = 4.708). Following these, C (mean = 4.743), ITBI (mean = 4.847), AB (mean = 4.883), and BL (mean = 4.906) were the remaining means which tested between four and five. The following means all tested above five: AI (mean = 5.077), BE (mean = 5.093), BA (mean = 5.124), and the highest scoring mean was BT (mean = 5.252).
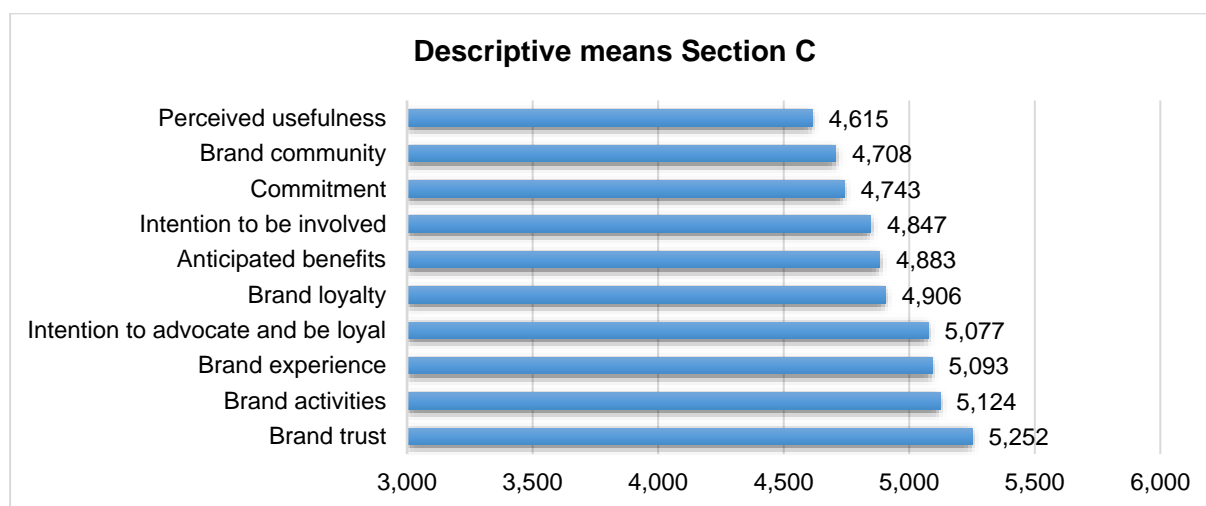
Figure 5-11:   Descriptive means for factors PU, BC, C, ITBI, AB, BL, AI, BE, BA, BT (in ascending order of means)

The data shown in Figure 5-11, based on the means from the main study, suggest several things which will be discussed in the order in which they appear in the questionnaire.

Brand loyalty shows that Generation Y students are loyal to specific smartphone brands. This loyalty suggests that they will continue to use the brand, be loyal to the brand community, and recommend the brand to others. Generation Y students can be very loyal to their preferred brand

if the brand conducts itself correctly. Linking brand loyalty to their favourite smartphone choice (Samsung), one can surmise that Samsung smartphones would be purchased more often and that Generation Y students would say positive things about the brand, and recommend it more often, both online and offline.

Brand experience played a relatively prominent role. Generation Y students feel that their favourite smartphone brand is interesting, and even elicits strong emotions and stimulates curiosity.

Students perceive social media as useful, which means that they consider sites to be empowering; that is, they help them to stay in touch with smartphone brands.

Students stated that they anticipated benefits from using the social media pages of their favourite smartphone brand. This included benefits to those who are committed, competitions, and special offers.

The surveyed students further stated that certain brand activities were very important to them. These activities were advice and useful info, customer services, and accurate and complete information about their products and services. This means that Generation Y students want to know that smartphone brands are available to them on social media to assist them and provide information.

Brand community is also important to Generation Y students. This shows that they want a community to take part in and that will to provide them with product information and share opinions about the brand and its products.

Regarding their intention to be involved, Generation Y students show a keen interest to do so. They are interested in keeping track of services and special offers from their preferred smartphone brand.

Brand trust scored the highest mean, showing that trust is extremely important to Generation Y students. Here, all items within the scale scored means above five, which indicates that the respondents have high expectations of brands. They want the brand to take good care of them, meet their expectations, inspire confidence, never disappoint them, guarantee satisfaction, and to be honest and sincere. Furthermore, they want brands to be reliable in solving problems, make an effort to satisfy them, and help them when there is a problem with their smartphone.

Their commitment towards a brand is rated highly, which shows what happens when a Generation Y student trusts a brand's social media pages. This indicates that they are committed to a brand when trust is present and believe that a lot of effort should be put into the social media pages of

the trusted brand. Thus, this measure shows both trust and commitment to the brand; trust and commitment are interconnected factors.

Finally, when asked about their advocacy intention towards smartphone brands' social media pages, Generation Y students reacted favourably. They indicated that when they are committed towards a smartphone brands' social media pages, a couple of things are likely to happen: They promote and recommend the social media pages and may buy the products offered by the brand. Thus, when Generation Y students feel committed towards smartphone brands' social media pages, they will advocate and be loyal towards that brand. Commitment was brought into the question, which showed that commitment and advocacy are correlated with one another.

Next, the exploratory factor analysis was conducted to ascertain whether all factors grouped as they should, for further analysis.

5.5 EXPLORATORY FACTOR ANALYSIS

This section shows the outcome of the exploratory factor analysis that was conducted on the data in Section C of the questionnaire. To ensure that factor analysis could be conducted on the data set, a KMO test and Bartlett's test of sphericity were conducted.

Table 5-12 shows the outcome of the tests based on all items (60 items), as well as the second and final outcomes after each round of cleaning. This involved removing items with low communalities and removing items with factor loadings below 0.6. The factor analysis was conducted with all items. The cleaning process was conducted recurrently as per Table 5-13 and Table 5-14. After this, the factor analysis was conducted again, which is shown in Table 5-12, 'Second-EFA'. After the removal of several items, the skewness and kurtosis tests were conducted (results in Table 5-18), which showed higher than preferred values. As such, outliers were removed again, and the factor analysis was conducted a final time, of which column 'Final-EFA' shows the outcome. The factor analysis, that follows in Table 5-15, shows the final factor analysis which is based on the 'Final-EFA'. As such, the factor analysis in Table 5-15 was the final analysis conducted.

Table 5-12:   Validity of the data

Test	All items	Second-EFA	Final-EFA
KMO	0.916	0.899	0.900
Bartlett's test	16636.419	10906.048	10715.929
df	1770	820	820
p	0.000	0.000	0.000
Variance explained by 10 factors	59.405	67.563	67.239

A principal component analysis with the Promax rotation method, Kappa = 4 (Di Franco & Marradi, 2013:98), was performed on the data from Section C to achieve clean loadings for the first test. A fixed number of 10 factors were set for extraction as per the theory laid out in Chapter 3, and per a priori criterion. For Table 5-12 column 'All items', these factors, each of which had an Eigenvalue higher than one, explained 59 per cent of the variance. The communalities loaded above the recommended 0.2 (Samuels, 2016:1), however, 0.5 was used to ensure high-quality data. As seen in Table 5-12, an acceptable KMO of 0.916 was achieved, which was above the recommended 0.5 (Larose, 2006:19). Furthermore, Bartlett's test achieved a score of 16636.419 (df = 1770), and the data was significant (p = 0.000 < 0.050), which indicated that the data was factorable. The factor analysis was conducted, after which all variables with a communality-score below 0.5 were removed. The following were removed in each phase, which was conducted three times to ensure that all communalities below 0.5 were excluded from the study. Table 5.13 shows the items which were removed based on low communality scores. Three runs were conducted to ensure the stability of all factors.

Table 5-13:   Items removed based on communality-score

Item	Communality-score
First run	
CA1	0.436
CA2	0.438
CA6	0.463
CB2	0.486
CC1	0.394
CF1	0.486
CF4	0.480
CF6	0.495
CF8	0.498
CG7	0.496
CG8	0.446
Second run	
CB5	0.496
CG6	0.489
Third run	
CF7	0.490

As can be seen from Table 5-13, 11 items were removed after the first analysis; two after the second analysis; and one after the third analysis. As such, 14 items were removed due to low communality scores. Next, all variables with a factor loading below 0.6 were suppressed in order to ensure that the quality of data remained high for the structural equation modelling to follow. Table 5-14 shows the items that were removed after the EFA was conducted again:

Table 5-14:   Factor loadings below 0.6 removed

Item	Factor loading
CE1	0.526
CG5	0.366
CH1	0.508
CJ1	0.545
CJ8	0.559

Five items loaded below 0.6 and were removed from the study. Item CD3 loaded at 0.595 but was kept, upholding the integrity of the factor as there were only three variables in the factor. Item CD3 loaded at 0.672 after the items from Table 5-14 were removed.

The second dimension reduction was conducted using the same parameters as before, with the added dimension of suppressing factor loadings below 0.6, which yielded the removal of five items as seen in Table 5-14. The KMO remained acceptable at 0.899. Furthermore, the Bartlett's test (chi-square) achieved a score of 10906.048 (df = 820), and the data was significant (p=0.000 < 0.050). This explained 68 per cent of the variance.

A third factor analysis was conducted after several outliers were removed (as per Table 5-19). Table 5-15 shows the factor loadings as well as the communalities after the final dimension reduction (see Table 5-12, 'Final-EFA'). The KMO rose to 0.900, the chi-square decreased to 10715.929. The degrees of freedom remained the same (df = 820), and the data remained significant (p = 0.000 < 0.050). Lastly, the 10 factors explained 66 per cent of the variance. The data used from hereon are from the factor analysis below, after the second round of outlier removal. Table 5-15 shows the items; which factors they initially fit into; which factor they grouped in; and lastly, the communalities (com) for each item.

Table 5-15:   Factor analysis

Item	Construct	1	2	3	4	5	6	7	8	9	10	Com
C3	BL3									0.814		0.647
C4	BL4									0.793		0.711
C5	BL5									0.814		0.688
C7	BE1							0.784				0.646
C9	BE3							0.864				0.804
C10	BE4							0.840				0.723
C13	PU2						0.835					0.761
C14	PU3						0.907					0.861
C15	PU4						0.843					0.772
C16	AB1										0.737	0.632
C17	AB2										0.825	0.740
C18	AB3										0.691	0.693
C20	BA2					0.670						0.523
C21	BA3					0.831						0.702
C22	BA4					0.843						0.730
C23	BA5					0.789						0.629
C26	BC2								0.813			0.717
C27	BC3								0.823			0.726
C28	BC5								0.691			0.546

Table 5-15:   Factor analysis (continued)

Item	Construct	1	2	3	4	5	6	7	8	9	10	Com
C32	ITI1				0.868							0.767
C33	ITI2				0.907							0.850
C34	ITI3				0.845							0.745
C35	ITI4				0.677							0.589
C41	BT2	0.634										0.552
C42	BT3	0.663										0.586
C43	BT4	0.793										0.550
C44	BT5	0.831										0.634
C45	BT6	0.751										0.648
C46	BT7	0.801										0.647
C47	BT8	0.777										0.596
C48	BT9	0.755										0.628
C49	C1			0.719								0.695
C50	C2			0.808								0.742
C51	C3			0.899								0.767
C52	C4			0.799								0.698
C54	AI2		0.665									0.636
C55	AI3		0.653									0.578
C56	AI4		0.740									0.548
C57	AI5		0.820									0.665
C58	AI6		0.840									0.657
C59	AI7		0.729									0.541

Table 5-15:   Factor analysis (continued)

Factor Number	1	2	3	4	5	6	7	8	9	10
Eigen Values	11.056	3.405	2.658	2.064	1.861	1.585	1.415	1.310	1.215	1.000
% of variance	27	8	6	5	5	4	3	3	3	2
Variance explained by 10 factors –66%										

Table 5-15 shows that the remaining factors grouped as per theory laid out, onto the correct factor. Moreover, the factor loadings, as well as the communalities, were sufficiently high. Table 5-16 below illustrates the factors, as well as where the items fit into those factors.

Table 5-16:   Item fit within factors

BL	BE	PU	AB	BA	BC	ITBI	BT	C	AI
A	B	C	D	E	F	G	H	I	J
C3	C8	C13	C16	C20	C26	C32	C41	C49	C54
C4	C9	C14	C17	C21	C27	C33	C42	C50	C55
C5	C10	C15	C18	C22	C28	C34	C43	C51	C56
				C23		C35	C44	C52	C57
							C45		C58
							C46		C59
							C47		
							C48		

Items removed: C1, C2, C6, C7, C11, C12, C19, C24, C25, C29, C30, C31, C36, C37, C38, C39, C40, C53, C60

As shown in Table 5-17, a tolerance test was conducted to assess multicollinearity in correlation to the dependent variable advocacy intention (CJ). The test shows the condition index, the VIF, as well as the tolerance.

Table 5-17:   Multicollinearity test Dependent CJ (Advocacy intention)

Test for multicollinearity	Condition Index	VIF	Tolerance
CA	15.477	1.254	0.797
CB	17.714	1.447	0.691
CC	19.345	1.364	0.733
CD	20.868	1.610	0.621
CE	21.908	1.469	0.681
CF	25.135	1.422	0.703
CG	26.885	1.520	0.658
CH	30.792	1.471	0.680
CI	36.012	1.418	0.705

The tests conducted, shown in Table 5-17, show acceptable levels of tolerance and an acceptable VIF level (Hair *et al.,* 2014b:125; Gaskin, 2011). The condition index above 10 is considered high, and above 30 considered to be very high; however, these numbers are an informal rule (Su, 2016:38, UNC, 2007:3). Therefore, as the VIF and tolerance tests both show viable weights, the condition index was accepted. Moreover, the high number of variables can be seen to shift the condition index higher. The next section examines the descriptive statistics of the study.

5.6   DESCRIPTIVE STATISTICS

In this section, the measures of central tendency, variability, and shape, as described in Section 4.7.5, are discussed for all scaled items. As the kurtosis levels of several factors were high, as seen in Table 5-18, a second test was conducted for outliers, and the test conducted again. The figures below are those from the data before the second outlier removal process. Table 5-18 shows the variables and their relative mean, standard deviation, variance, skewness, and kurtosis.

Table 5-18:   Normality, first run

Variable	Mean n = 515	Standard deviation	Variance	Skewness	Kurtosis
BL	5.030	0.833	0.694	-1.174	2.185
BE	5.039	0.887	0.788	-1.231	1.932
PU	4.608	1.067	1.139	-0.834	0.647
AB	4.884	0.817	0.667	-1.021	1.765
BA	5.134	0.806	0.650	-1.197	1.864
BC	4.580	0.908	0.8265	-0.797	0.813
ITBI	4.820	0.960	0.921	-0.958	0.961
BT	5.267	0.691	0.478	-1.093	1.121
C	4.743	0.989	0.978	-1.041	1.503
AI	5.065	0.718	0.515	-0.703	0.393

The kurtosis levels for BL were high. Thus, in order to improve the kurtosis levels, a test for outliers was repeated which yielded the following results, shown in Table 5-19.

Table 5-19:   Removal of outliers

Outliers according to descriptive exploration	Z-score	Outlier according to both
69	79	79
79	97	97
97	485	485
112		
185		
299		
373		
485		

As per the Z-score and descriptive exploration, questionnaire 79, 97, and 485 were removed from the study. It should be noted again that the values from Table 5-15 (EFA) follow the outlier removal as per Table 5-19. After the removal of outliers, the test for normality was redone and it yielded the results which were tabulated in Table 5-20.

Table 5-20:   Normality, second run

Items	Mean n = 512	Standard deviation	Variance	Skewness	Kurtosis
BL	5.038	0.817	0.667	-1.049	1.527
BE	5.052	0.864	0.746	-1.129	1.465
PU	4.616	1.065	1.133	-0.848	0.699
AB	4.893	0.800	0.640	-0.903	1.152
BA	5.146	0.780	0.609	-1.026	0.909
BC	4.589	0.896	0.803	-0.737	0.571
ITBI	4.822	0.961	0.924	-0.963	0.966
BT	5.271	0.688	0.474	-1.107	1.195
C	4.746	0.990	0.979	-1.047	1.522
AI	5.072	0.714	0.509	-0.716	0.456

As shown in Table 5-20, all scales fell into the skewness range of -2 to 2. Regarding kurtosis, all scales fell within the accepted -2 to 2 range. Means were discussed in Section 5.4.7, based on 515 questionnaires. Standard deviation ranged between 0.714 and 1.065, and variance ranged between 0.509 and 1.133. Therefore, all weights were in acceptable ranges, which indicated that the study could continue. The next section briefly discusses common method bias and how the study tested for it.

5.7   COMMON METHOD BIAS

Common method bias occurs when the variance is attributed to the measurement method instead of attributed to the constructs which are represented by the measures (Podsakoffet *et al.*, 2003:879). Therefore, in order to minimise the effect of common method variance, several techniques were used. A pre-test was conducted to ensure the brevity and clarity of the questions. Next, all students were ensured of the privacy and anonymity of the study, and of the fact that the data would only be seen and used for the study. This ensured that their identities could not be compromised, thus ensuring more accurate data. On the analysis side, several statistical techniques were employed to ensure that the data did not suffer from common method bias. Firstly, Harman's single-factor test was conducted, where all items were loaded into a factor

analysis, and the extraction set to one with rotation disabled. The data showed a variance of 27.261, which was lower than the prescribed variance, being< 50 (Gaskin, 2011; Podsakoffet *et al.*, 2003:879). A further study was conducted using a common latent factor and yielded results of 24 per cent, which showed that common method bias was not present (variance < 50%) (Eichhorn, 2014:4). The next section focusses on the nomological validity of the study.

5.8 CORRELATION ANALYSIS

In this section, a correlation matrix was constructed as a way of assessing the nomological validity of the measurement model (Hair *et al.*, 2010:710). The nomological validity was assessed by means of Pearson's Product-Movement correlation coefficient. The analysis of the data is shown in Table 5-21.

Table 5-21:   Correlation analysis

Factor	BL	BE	PU	AB	BA	BC	ITBI	BT	C	AI
BL	1									
BE	0.409*	1								
PU	0.244*	0.372*	1							
AB	0.249*	0.306*	0.262*	1						
BA	0.190*	0.244*	0.142*	0.482*	1					
BC	0.240*	0.334*	0.312*	0.429*	0.338*	1				
ITBI	0.240*	0.347*	0.389*	0.396*	0.316*	0.381*	1			
BT	0.243*	0.286*	0.100**	0.384*	0.417*	0.291*	0.348*	1		
C	0.205*	0.292*	0.315*	0.354*	0.194*	0.335*	0.407*	0.382*	1	
AI	0.322*	0.336*	0.236*	0.326*	0.325*	0.303*	0.394*	0.469*	0.559*	1

*Correlation is significant at the 0.01 level (2-tailed)
** Correlation is significant at the 0.05 level (2-tailed)

In Table 5-21, all constructs displayed a positive correlation which suggests that there was nomological validity. All constructs (BL, BE, PU, AB, BA, BA, BC, ITBI, BT, C, AI) ranged between $1 \geq r \geq -1$, which shows significance and movement in the expected positive direction (Mcnabb, 2010:194). All but one of the correlations showed significance at the 0.01 level - the one which did not (PU–BT), showed significance at the 0.05 level. Next, the juxtaposition between variables was shown and discussed.

5.9 JUXTAPOSITION BETWEEN VARIABLES

This study made use of comparison tests to determine whether there were any differences in significance, utilising three different predictor variables. The first test was to ascertain whether any differences existed between female and male Generation Y students. These variables were tested regarding the following: BL, BE, PU, BA, BC, ITBI, BT, C, AI. Next, a comparison by university was conducted, and finally, a comparison by age. The significance was set at the conventional level of 5 per cent (a = 0.05). This section examines the second empirical objective set out in Section 1.3.3, which stated: "Determine whether there is a difference in male and female, different ages, and different universities, responses regarding brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, advocacy intention."

5.9.1 Gender differences

First, gender differences were explored. The hypothesis presented for the two independent samples t-test was as follows:

H_03 – There is no statistically significant difference between female and male Generation Y students regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

H_a3 – There is a statistically significant difference between female and male Generation Y students regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

Table 5-22 shows the construct, the male and female mean, sample sizes, standard deviation, T-value, p-value, as well as Cohen's D, where applicable. The mean for the test shows a total sample of 509 students. The reason for this is due to three respondents not indicating their gender.

Table 5-22: Two-independent samples t-test

Construct	Female mean = 315	Female std dev	Male mean = 194	Male std dev	T-value	p-value	Cohen's D
BL	5.064	0.831	5.007	0.780	0.776	0.4384	******
BE	5.071	0.894	5.015	0.817	0.717	0.474	******
PU	4.639	1.061	4.577	1.079	0.632	0.528	******
AB	4.976	0.758	4.761	0.852	2.876	0.004***	0.267****
BA	5.223	0.719	5.016	0.861	2.808	0.005***	0.261****
BC	4.633	0.876	4.510	0.930	1.475	0.141	******
ITBI	4.866	0.923	4.749	1.023	1.302	0.194	******
BT	5.319	0.660	5.191	0.729	2.005	0.046	******
C	4.825	0.918	4.604	1.086	2.353	0.019***	0.220****
AI	5.120	0.688	4.987	0.750	2.029	0.043***	0.185****
*	**Not significant**						
**	**Moving toward practical significance**						
***	**Statistically significant at $p < 0.05$**						
****	**Small effect size d = 0.2**						
*****	**Medium effect size d = 0.5**						
******	**Cohen's D-statistic not calculated**						

For six of the ten factors there was no statistical significance, therefore the null hypothesis, $H_0 3$, could not be rejected at a significance level of 5 per cent. The factors which formed part of the null hypothesis were BL, BE, PU, BC, ITBI, and BT. This suggested that male and female Generation Y students did not differ significantly in their view of the aforementioned factors. A statistically significant difference was found in four of the ten factors. These factors were AB, BA, C, and AI. Cohen's D was calculated using Social Science Statistics (2017).

From Cohen's D, three factors showed a small effect size, and one showed an insignificant effect size. The factor which showed an insignificant effect size was AI (d = 0.183). The factors which showed a small effect size were BA (d = 0.269), AB (d = 0.243), and C (d = 0.212). Thus, the alternate hypothesis, $H_a 3$, could be accepted for the three factors which showed a small effect size. However, as the effect size was small, assumptions were not made based on the data. The next section assessed differences by university.

5.9.2 Difference by university

A comparison was conducted between the three universities. The following hypothesis was put forward:

$H_0$4 – There is no statistically significant difference between Generation Y students from the varying universities surveyed regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

H_a4 – There is a statistically significant difference between Generation Y students from the varying universities surveyed regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

The Kruskal-Wallis H test was conducted, which found the following: A statistically significant difference could be seen in six of the ten factors. These factors were CC, CD, CE, CF, CG, and CI. The next chart shows the differences. The axes were the comparative mean (Y) and each university (X).

Comparison by university Kruskal-Wallis score
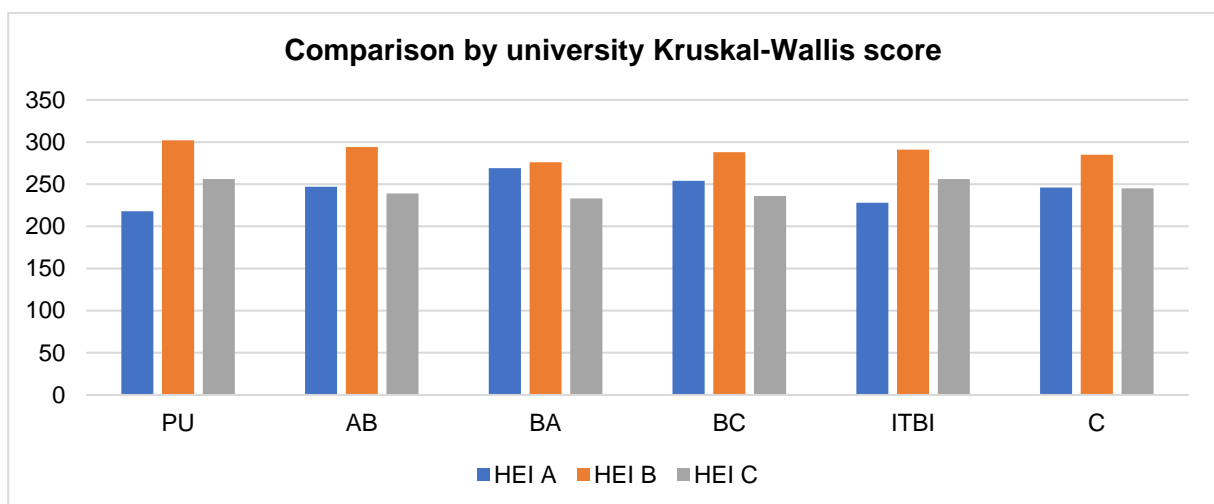
Figure 5-12: Comparison by university

The overall mean scores showed a higher mean score for HEI B in all the factors which showed significance. Therefore, those from HEI B showed significantly higher PU, AB, BA, and BC. Moreover, they had an overall higher ITBI and C. Hence, Figure 5-12 shows that there are differences in how Generation Y students from varying universities feel regarding certain factors. However, as the differences were not large, and no qualitative data was available, no further inferences were made for this section. The last section in the comparison phase assessed differences based on age.

5.9.3 Differences by age

For age, the following hypothesis was stated:

H$_0$5 – There is no statistically significant difference between different Generation Y student age groups regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

H$_a$5 – There is a statistically significant difference between different Generation Y student age groups regarding BL, BE, PU, AB, BA, BC, ITBI, BT, C, AI.

The Kruskal-Wallis H test was conducted, which saw significance in only BE and AB. The figure below shows comparison by age for BE and AB on a trendline. Once again, the Kruskal-Wallis shows a comparative mean.
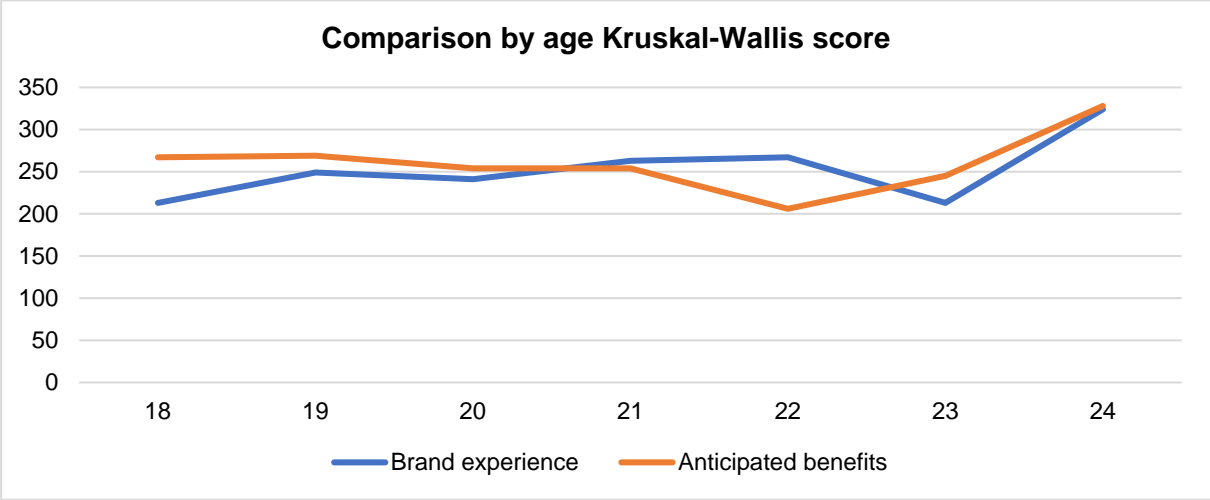
Figure 5-13:   Differences by age

For age, a trendline was used in order to show the differences. Generation Y students showed an increasing need for BE towards age 22; it dropped at age 23, only to rise again at age 24. AB remained relatively flat for ages 18 to 21, decreased towards age 22, only to increase rapidly towards age 24. As no further ages beyond 24 were recorded, it is difficult to state whether the upward trend would continue.

This section showed that Generation Y students across varying ages felt similarly regarding the questions posed. It could possibly be inferred that for those aged between 18 and 24, feelings towards social media are fairly homogenous in certain respects and can be treated as such by marketers. That is to say, little of the data are age sensitive.

The next section shows the hypotheses presented for the juxtaposition and the outcome of said hypotheses.

5.9.4 Hypothesis used for juxtaposition

Table 5-23 below shows the hypothesis that was used in each of the comparisons made. As such, it shows each construct and the gender-based, university-based, and age-based comparisons. The hypotheses used per construct are shown.

Table 5-23:   Hypothesis used

Construct	Gender H3	University H4	Age H5
BL	$H_0 3$	$H_0 4$	$H_0 5$
BE	$H_0 3$	$H_0 4$	$H_a 5$
PU	$H_0 3$	$H_a 4$	$H_0 5$
AB	$H_a 3$	$H_a 4$	$H_a 5$
BA	$H_a 3$	$H_a 4$	$H_0 5$
BC	$H_0 3$	$H_a 4$	$H_0 5$
ITBI	$H_0 3$	$H_a 4$	$H_0 5$
BT	$H_0 3$	$H_0 4$	$H_0 5$
C	$H_a 3$	$H_a 4$	$H_0 5$
AI	$H_a 3$	$H_0 4$	$H_0 5$

In summation, several differences were found in each category; however, as the differences were small, no qualitative data was available. In the case of age, no ages beyond 24 were used, therefore it would be difficult to make scientifically grounded proposals. Short inferences could possibly be used; however, this section merely shows where more data are needed and presents opportunities that will be addressed in Chapter 6. The following section discussed the structural equation modelling portion of the study.

5.10 STRUCTURAL EQUATION MODELLING

This portion of the study was dedicated to the structural equation models. The first section shows the overall model followed by the reliability and validity of the measurements, and hypotheses put forward for the structural equation modelling. Next, the conceptual model is shown, followed by the altered model. The last model was proposed to show the flexibility of the model for future usage.

5.10.1 Measurement model specification

As per the factor analysis conducted in Section 5.5, ten factors were extracted in order to run further analyses. In the SEM measurement model, estimates showed that CH2 and CH3 were

highly correlated, showing a model indice of 52.202. Thus, to improve the results, CH3 was removed from the study as it showed the best results, as per Table 5-24. Therefore, it was assumed that CH3 had the largest impact on the study due to the high correlation between CH3 and CH2. As such, 40 items remained in the model, as shown in Figure 5-14. The following table is a comparison between the removal of CH2 and CH3.

Table 5-24:   Hypothesis used

Model fit index	CH2	CH3
SRMR	0.046	0.045
RMSEA	0.044	0.043
IFI	0.930	0.934
TLI	0.921	0.925
CFI	0.930	0.933
CS/df	1.995	1.941
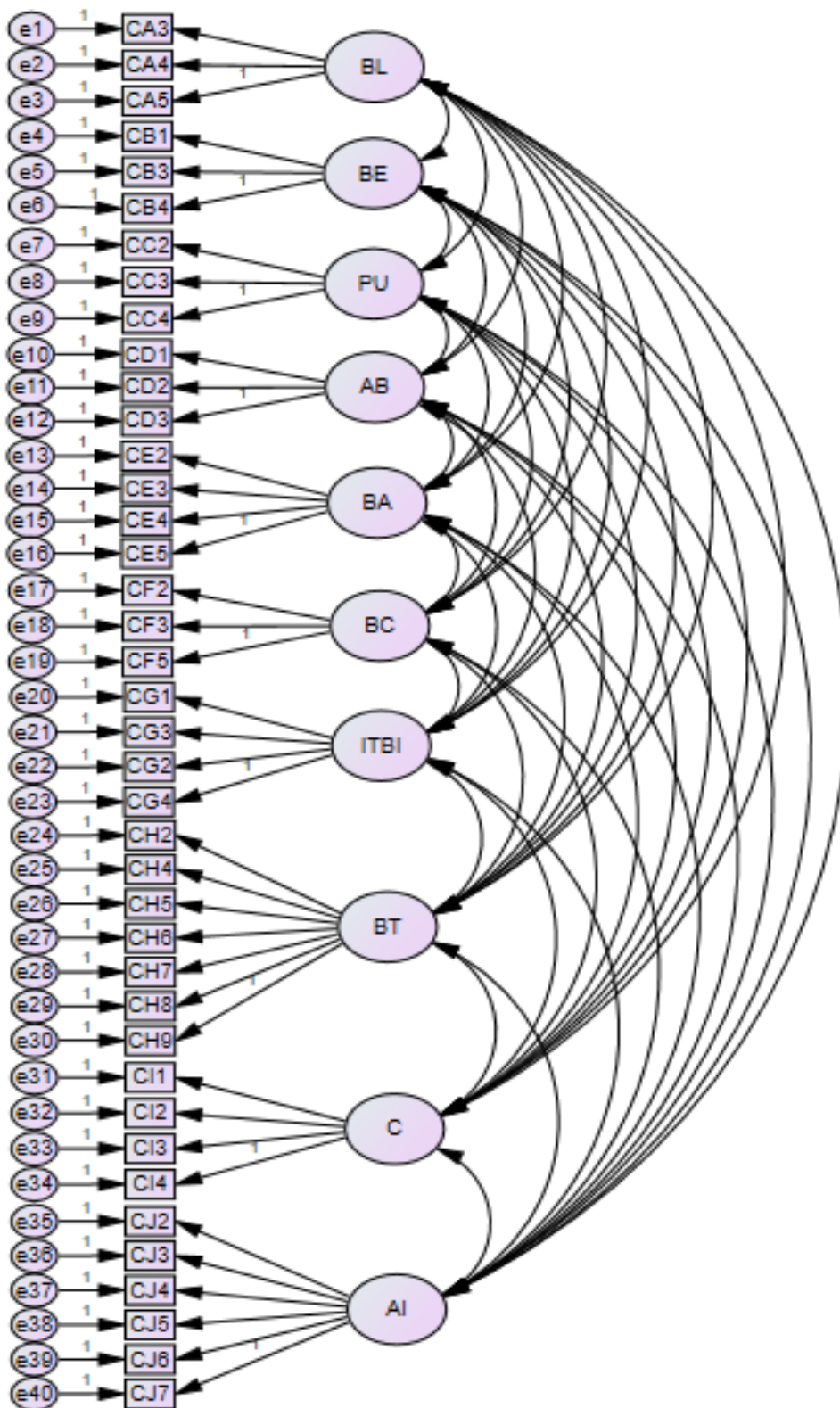
Figure 5-14: **Structural model A – Measurement model specification**

The model above represents all the factors used in the study. For the model to run successfully, one loading to each of the factors was fixed at 1.0. There were 820 sample moments, 125 parameters, with a degree of freedom of 695. A chi-square of 1349.067 was achieved along with

significance p = 0.000. Next, the model was assessed for any problematic cases, such as too low or too high factor loadings. Table 5-25 shows the latent factors, the items in the factors, the factor loadings, error variances for the varying items, as well as the skewness and kurtosis measured in AMOS for the structural model.

Table 5-25: **Factor loadings and error variance**

Construct	Indicator	Factor loadings		Error variance	Skewness	Kurtosis
	CA3	0.615	+	0.378	-0.865	0.696
BL	CA4	0.783	+	0.613	-1.284	2.042
	CA5	0.714	+	0.509	-1.616	3.117
	CB1	0.636	+	0.405	-1.778	3.802
BE	CB3	0.908	+	0.825	1.165	1.353
	CB4	0.746	+	0.557	-0.871	0.638
	CC2	0.784	+	0.615	-0.787	0.270
PU	CC3	0.936	+	0.877	-0.940	0.623
	CC4	0.788	+	0.621	-1.036	1.024
	CD1	0.592	+	0.351	-1.202	1.892
AB	CD2	0.682	+	0.465	-0.893	0.907
	CD3	0.754	+	0.568	-1.046	1.305
	CE2	0.622	+	0.387	-1.086	1.002
BA	CE3	0.765	+	0.585	-1.188	1.537
	CE4	0.805	+	0.649	-1.234	1.358
	CE5	0.707	+	0.500	-1.285	1.889
	CF2	0.765	+	0.585	-0.732	0.237
BC	CF3	0.811	+	0.657	-0.574	0.357
	CF5	0.590	+	0.348	-0.870	0.658
	CG1	0.828	+	0.685	-0.929	0.423
ITBI	CG2	0.921	+	0.849	-0.999	0.813
	CG3	0.795	+	0.631	-0.906	0.589
	CG4	0.645	+	0.416	-1.186	1.563

Table 5-25: Factor loadings and error variance (continued)

Construct	Indicator	Factor loadings		Error variance	Skewness	Kurtosis
	CH2	0.650	+	0.422	-1.393	2.399
	CH4	0.662	+	0.438	-1.429	2.111
	CH5	0.723	+	0.522	-1.312	1.733
BT	CH6	0.783	+	0.614	-1.288	1.496
	CH7	0.780	+	0.609	-1.299	1.745
	CH8	0.728	+	0.530	-1.401	2.314
	CH9	0.753	+	0.567	-1.833	4.015
	CI1	0.772	+	0.596	-1.315	1.794
C	CI2	0.832	+	0.692	-0.962	0.935
	CI3	0.812	+	0.660	-0.929	0.884
	CI4	0.768	+	0.590	-0.971	0.568
	CJ2	0.761	+	0.579	-1.291	2.185
	CJ3	0.699	+	0.488	-0.921	0.948
AI	CJ4	0.654	+	0.427	-0.977	1.124
	CJ5	0.748	+	0.559	-1.055	1.205
	CJ6	0.697	+	0.486	-1.048	1.261
	CJ7	0.636	+	0.404	-1.120	1.471

As seen in Table 5-24, all standardised loadings were above 0.5. Error variances ranged from 0.378 to 0.877. Skewness and kurtosis values are both acceptable (Kline 2011:63)

The following table shows the model fit indices for Model A. The required result and the actual result are shown for reference purposes. As such, Table 5-26 shows the SRMR, RMSEA, GFI, IFI, TLI, CFI, CS/df.

Table 5-26: Model fit for Model A

Model fit index	Required result	Actual result
SRMR	< 0.080	0.045
RMSEA	< 0.080	0.043
IFI	≥ 0.900	0.934
TLI	≥ 0.900	0.925
CFI	≥ 0.900	0.933
CS/df	< 3.00	1.941

As per Table 5-25, the indices results were as follows. Standard root mean residual (SRMR = 0.045), root mean square error of approximation (RMSEA = 0.045), incremental fit index (IFI = 0.934), Tucker-Lewis index (TLI = 0.925), comparative fit index (CFI = 0.933), and chi-square degrees of freedom calculation (CS/df = 1.941). All model fit values showed acceptable results and the study continued with further analysis. In the next section reliability and validity of the measurements were assessed.

5.10.2 Reliability and validity of the measurements

The reliability of the factor analysis was conducted as per Grande (2016). The findings of the AVE, CR, and correlation matrix are shown below in Table 5-27.

Table 5-27:   AVE, CR, Correlation matrix

	CR	AVE	√AVE	BL	BE	PU	AB	BA	BC	ITBI	BT	C	AI
BL	0.849	0.651	0.807	1									
BE	0.869	0.689	0.830	0.380	1								
PU	0.897	0.744	0.862	0.216	0.331	1							
AB	0.796	0.567	0.753	0.261	0.316	0.227	1						
BA	0,865	0,618	0.786	0.198	0.200	0.035	0.443	1					
BC	0,713	0,605	0.778	0.213	0.299	0.297	0.334	0.288	1				
ITBI	0,897	0,687	0.829	0.225	0.332	0.344	0.363	0.307	0.347	1			
BT	0,912	0,568	0.753	0.241	0.282	0.074	0.381	0.405	0.258	0.332	1		
C	0,883	0,654	0.809	0.165	0.308	0.262	0.331	0.138	0.228	0.365	0.345	1	
AI	0,881	0,554	0.744	0.318	0.338	0.211	0.333	0.331	0.257	0.369	0.462	0.490	1

Table 5-27 shows the correlation matrix for the factor analysis conducted in Table 5-15. Table 5-26 shows acceptable CR levels, above 0.7, and acceptable AVE levels, above 0.5. Moreover, the √AVE scores were higher than those in the correlation matrix, which showed that the factors were reliable.

Validation of the factors was a crucial part of reaching the objectives set. As such, composite reliability (CR) and average variance extracted (AVE) were used to determine the reliability and validity of the scale. Table 5-28 below shows the CR, AVE, squared AVE, as well as the correlation matrix, which was used for validating the measurement model

Table 5-28:   AVE, CR, Correlation matrix

	CR	AVE	√AVE	BL	BE	PU	AB	BA	BC	ITBI	BT	C	AI
BL	0.748	0.500*	0.707**	1									
BE	0.746	0.500*	0.707**	0.494	1								
PU	0.749	0.500*	0.707**	0.275	0.408	1							
AB	0.748	0.500*	0.707**	0.349	0.369	0.292	1						
BA	0.710	0.500*	0.707**	0.235	0.274	0.136	0.631	1					
BC	0.747	0.500*	0.707**	0.298	0.407	0.340	0.579	0.404	1				
ITBI	0.798	0.500*	0.707**	0.260	0.388	0.410	0.477	0.341	0.438	1			
BT	0.875	0.500*	0.707**	0.283	0.308	0.074	0.457	0.486	0.323	0.349	1		
C	0.800	0.500*	0.707**	0.243	0.314	0.352	0.403	0.219	0.382	0.453	0.402	1	
AI	0.857	0.500*	0.707**	0.407	0.381	0.269	0.406	0.374	0.340	0.426	0.530	0.647	1

* 0.50 (0.500 used for consistency)

** 0.71 (0.707 used for consistency)

As indicated in Table 5-28, the CR values exceeded the recommended 0.70 level, which indicated that the constructs were reliable. Discriminant validity was proven as all coefficients loaded below the 0.707 (0.71 rounded) mark. Thus, none of the 45 cases was larger than the √AVE value. Given that this study comprised of a ten-dimension measure with varying aspects, some degree of inter-correlation was expected. Furthermore, perchance, some violations could occur in a study of this size (Sharp, 2013:107). However, no violations occurred in this study.

After the analysis of the data, the validity of the measurement model was supported. Therefore, it was concluded that the measurement model was valid and reliable, whereby the fit made it suitable for testing a structural model.

The internal-consistency shown below in Table 5-29 was conducted after the second outlier removal and is based on the final EFA conducted as was shown in Table 5-15.

Table 5-29:   Internal-consistency reliability

Construct	Number of items in scale	Cronbach's alpha	Average inter-item correlation
BL	3	0.739	0.493
BE	3	0.795	0.568
PU	3	0.870	0.690
AB	3	0.713	0.455
BA	4	0.811	0.519
BC	3	0.754	0.511
ITBI	4	0.871	0.629
BT	8	0.895	0.518
C	4	0.871	0.633
AI	6	0.851	0.489
Total	41	0.929	0.247

The discussion that follows is based on the second Cronbach's alpha as well as the second average inter-item correlation. Table 5-29 shows that six of the ten constructs in Section C of the main study fell within a 'good' range ($\alpha > 8$) of the Cronbach's alpha: PU, BA, ITBI, BT, C, AI. The variables BL, BE, AB, and BC fell within the 'acceptable' range of $\alpha > 7$ (George &Mallery, 2016:240). The overall Cronbach's alpha was 0.929.

As for inter-item correlation analysis, a score below 0.15 would suggest no correlation and a value above 0.15 would indicate that there is a correlation (Spiliotopoulou, 2009:12). In certain cases, values above 0.5 can be seen as a high inter-item correlation; however, it can be expected in constructs where items measure similar concepts (Felton, 2008:40). Furthermore, an inter-item correlation of ~0.6 is deemed viable (Myburgh *et al.*, 2014:124; Katamba, 2010:22; Llego-Canceko *et al.*, 2009:65). Therefore, as the items measured similar concepts, and the Cronbach's alpha values were sufficient, their viability was deemed acceptable. Lastly, the overall inter-item correlation was 0.245, which ranged between the acceptable levels of 0.15 and 0.5 (Van Deventer, 2014:139; Spiliotopoulou, 2009:12; Clark & Watson, 1995:316) All statistics were deemed sufficiently high and showed correlation. The next section examines the correlation analysis for the study.

5.10.3 Structural Model B1

As per the literature, the following model was proposed in this study. It was suggested that BL, BE, PU, AB, BA, and BC were independent variables. ITBI mediated the independent variables

for BT. BT mediated ITBI towards C, and C mediated BT towards AI. This section tested the third empirical objective in Section 1.3.3, which stated: "Empirically test a model to assess factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students." This was expanded on in Section 5.10.4 and Section 5.10.5.

5.10.3.1 Hypothesis testing for Model B1

The hypothesis testing in this study was conducted using the conventional significance level of a = 0.05. The first sets of hypotheses are set for the conceptual model, Model B1. The relationships were used to propose the following hypotheses:

$H_0 6$: Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students are not a ten-factor structure comprising brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

$H_a 6$: Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students are a ten-factor structure comprising brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, and advocacy intention.

$H_0 7$: Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community do not have a direct, positive effect on intention to be involved.

$H_a 7$: Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community have a direct, positive effect on intention to be involved.

$H_0 8$: Intention to be involved does not have a direct, positive influence on brand trust.

$H_a 8$: Intention to be involved has a direct, positive influence on brand trust.

$H_0 9$: Brand trust does not have a direct, positive influence on commitment.

$H_a 9$: Brand trust has a direct, positive influence on commitment.

$H_0 10$: Commitment does not have a direct, positive influence on advocacy intention.

$H_a 10$: Commitment has a direct, positive influence on advocacy intention.

$H_0 11$: Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are not mediated by intention to be involved, to brand trust.

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H_a11: Brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are mediated by intention to be involved, to brand trust.

H_012: Intention to be involved is not mediated by brand trust, to commitment.

H_a12: Intention to be involved is mediated by brand trust, to commitment.

H_013: Brand trust is not mediated by commitment, to advocacy intention.

H_a13: Brand trust is mediated by commitment, to advocacy intention.

The following section discusses the measurement model specification.

5.10.3.2 Model for B1

In Model B1, the variables BL, BE, PU, AB, BA, and BC, affect ITBI, which in turn affects BT, which affects C, which affects AI. Thus, BL, BE, PU, AB, BA, and BC are mediated by ITBI, which in turn is mediated by BT, which is mediated by C, towards AI.

The questionnaire's usage of BT, C, and AI was worded in such a matter that for BT, engagement was informally implied, for C, trust was informally implied, and for AI, commitment was informally implied. This was done for flexibility in the model with future studies in which a simplified model could be used. As such, future studies might use BT, C, or AI as the dependent variable.

Model B1 should be considered as the conceptual model as it was constructed according to literature, with the exception of Brand Loyalty. The data that follows, therefore, shows how global literature and South African data correspond.
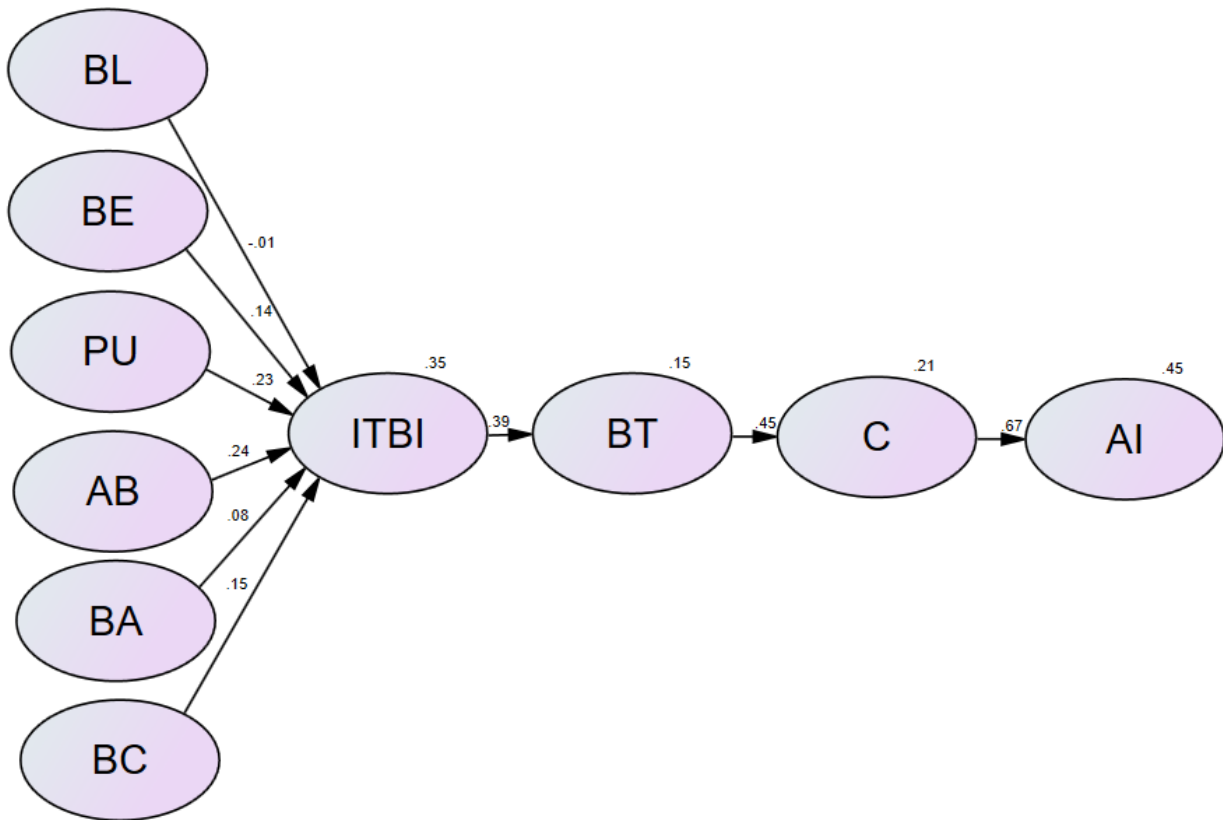
Figure 5-15: Structural model B1

Table 5-30 shows the model fit indices, which include the SRMR, RMSEA, GFI, IFI, TLI, CFI, CS/df, AIC, and CAIC weights. Required results were added for reference purposes.

Table 5-30: Model B1 fit

Model fit index	Required result	Result Model B1
SRMR	< 0.080	0.114
RMSEA	< 0.080	0.050
IFI	≥0.900	0.907
TLI	≥0.900	0.899
CFI	≥0.900	0.907
CS/df	< 3	2.280
AIC	Lowest AIC	1873
CAIC	Lowest CAIC	2382

The model showed acceptable RMSEA (0.50), IFI (0.907), CFI (0.907). However, TLI (0.895) was below 0.9, and the SRMR (0.114) was above the 0.08 mark. Table 5-31 below shows the estimates, SE, CR, and p for each of the paths.

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Table 5-31: Path estimates

Path	Estimate	S.E.	C.R.	p
ITBI<– BL	-0.009	0.086	-0.107	0.915
ITBI<– BE	0.238	0.098	2.435	0.15
ITBI<– PU	0.245	0.053	4.612	***
ITBI<– AB	0.414	0.146	2.839	0.005
ITBI<– BA	0.145	0.115	1.259	0.208
ITBI<– BC	0.179	0.078	2.302	0.021
BT<– ITBI	0.199	0.027	7.423	***
C<– BT	0.737	0.088	8.333	***
AI<– C	0.563	0.046	12.232	***

Table 5-31 shows that no significance was found between ITBI and BL (p = 0.915), ITBI and BE (p = 0.15), and ITBI and BA (p = 0.208) in this model. Table 5-32 below shows the mediating effects of each of the variables.

The analysis that followed tested the fourth and fifth empirical objectives: "Ascertain whether brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are mediated by intention to be involved, to brand trust," and "Test whether intention to be involved is mediated by brand trust, to commitment, and whether brand trust is mediated by commitment, to advocacy intention," respectively. This was further investigated in Table 5-36 and Table 5-39.

Table 5-32: Standardised indirect effects

Path	p
BL – ITBI – BT	0.918
BE – ITBI – BT	0.057
PU – ITBI – BT	0.001*
AB – ITBI – BT	0.018*
BA – ITBI – BT	0.269
BC – ITBI – BT	0.040*
ITBI – BT – C	0.001*
BT – C – AI	0.000*
* Significant	

Table 5-32 shows that BL, BE, and BA show no significance in being mediated by ITBI.

Model B1 hypothesised that when Generation Y students were brand loyal, had experience with the brand, regarded social media as useful, had certain benefits which they anticipated, relied on certain brand activities, and saw a need for a brand community, they would have interest and intention in using the social media pages of the brand(s). Next, when Generation Y students had the intention to be involved, they would develop trust in the brand, which would later become commitment. Finally, they would have the intention to become brand advocates on the brand's social media pages. Thus, when certain parameters were met, they would make use of, which would allow them to trust, which would allow them to commit, and then advocate the brand.

5.10.3.3 Hypothesis outcome Model B1

The following table shows the hypotheses proposed and whether the null was accepted or rejected.

Table 5-33:   Hypothesis outcome

Hypothesis	Hypothesis used
H6	H_a6
H7	H_07
H8	H_a8
H9	H_a9
H10	H_a10
H11	H_011
H12	H_a12
H13	H_a13

Table 5-33 shows the hypothesis accepted and rejected for each case. Hypotheses H6, H8, H10, H12, and H13 were accepted. Hypotheses H7 and H11 were rejected. As such, a new model was designed, which met requirements for fit paths and mediation, while still theoretically sound. The following model alters certain paths to find the best-suited model based on the data and theory.

5.10.4 Structural model B2

A revised model was created as closely accorded to the original proposed model as possible. The model is shown below as Model B2. Model B2 was proposed to show the contrast between global literature to the South African data. Therefore, Model B2 shows the data in the South African context.
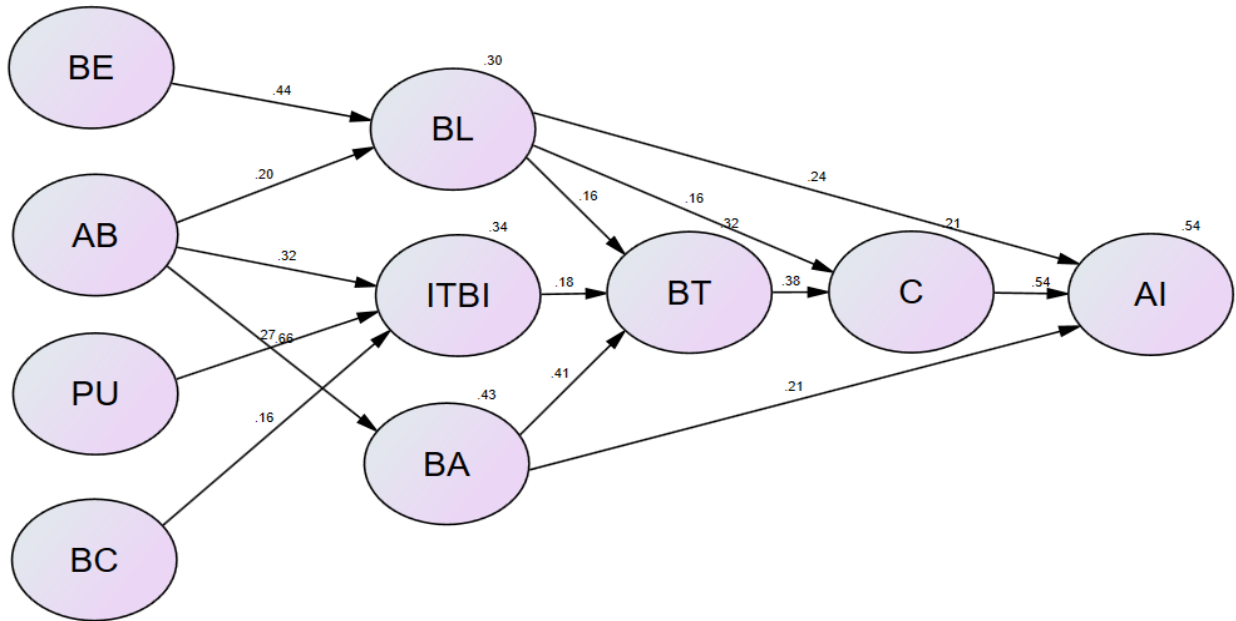
Figure 5-16:   Structural model B2

The model above shows a close resemblance to the initial model, except that BE and AB now influence BL. AB shifted to influencing BA as well. Moreover, the influence of BE to ITBI was removed. BA and BL shifted from influencing ITBI to influencing BT and AI, and BL influences C as well. The model showed significance for all connections and the following model fit, as per Table 5-34, shows the paths, estimates, SE, CR, and p.

Table 5-34:   Path estimates

Path	Estimate	S.E.	C.R.	p
ITBI –PU	0.290	0.051	5.689	***
ITBI – AB	0.561	0.117	4.801	0.011
ITBI – BC	0.201	0.079	2.536	***
BL – BE	0.491	0.074	6.619	***
BL – AB	0.230	0.070	3.298	***
BA – AB	0.648	0.077	8.444	***
BT – ITBI	0.092	0.025	3.666	***
BT – BA	0.369	0.053	6.932	***
BT – BL	0.128	0.040	3.153	0.002
C – BT	0.609	0.089	6.847	***
C – BL	0.205	0.068	2.997	0.003
AI – C	0.457	0.044	10.507	***
AI – BA	0.263	0.056	4.673	***
AI – BL	0.253	0.052	4.819	***

Table 5-34 shows that all paths were significant at the 0.05 level. Estimates ranged from 0.092 to 0.648. The next table shows the model fit for Model B2, including the required results for reference purposes, and Model B1 for comparison.

Table 5-35:   Model B2 fit

Model fit index	Required result	Model B1	Model B2
SRMR	< 0.080	0.114	0.071
RMSEA	< 0.080	0.050	0.046
IFI	≥0.900	0.907	0.923
TLI	≥0.900	0.899	0.916
CFI	≥0.900	0.907	0.922
CS/df	< 3	2.280	2.053
AIC	Lowest AIC	1873	1682
CAIC	Lowest CAIC	2382	2206

Model B2, showed proper fit and significance in all cases: SRMR = 0.070, RMSEA = 0.046, IFI = 0.923, TLI = 0.916, CFI 0.922, CS/df< = 2.053. The final comparison between the models is shown in Table 5-40, followed by a discussion. The following discussion is based on Model B2. Table 5-36 shows the mediating paths for Model B2.

Table 5-36:   Standardised indirect effects

Path	*p*
BE – BL – BT	0.006*
BE – BL – C	0.002*
BE – BL – AI	0.001*
AB – BL – BT	0.001*
AB – BL – C	0.001*
AB – BL – AI	0.001*
AB – ITBI – BT	0.001*
AB – BA – BT	0.001*
AB – BA – AI	0.001*
PU – ITBI – BT	0.000*
BC – ITBI – BT	0.022*
ITBI – BT – C	0.000*
BT – C – AI	0.000*
BL –BT – C	0.005*
BL – C – AI	0.002*
BA – BT – C	0.000*
* Significant	

Table 5-36 shows that all mediated paths were significant. As model fit, path significance, and mediation significance were all present, Model B2 can be considered a viable alternative to the originally proposed model. Next, a brief discussion follows regarding the implications of Model B2.

5.10.4.1 Brand experience (BE) and brand loyalty (BL)

The connection between BE and BL showed that it was important to Generation Y students to have a good impression. Thus, individuals could only become brand loyal when the brand experience was highly positive.

5.10.4.2 Anticipated benefits (AB) and brand loyalty (BL)

The link between AB and BL showed that there were certain benefits that Generation Y students expected before they would head towards BL. Therefore, when brands had the preferred benefits on their social media pages, students may have become loyal not only to the pages but to the brand as well.

5.10.4.3 Anticipated benefits (AB) and brand activities (BA)

The model showed that AB was important to Generation Y students, which lead to BA. Thus, they first expected benefits from the brand before the BA played a role. This link seemed intuitive as the students think about what they want from the brand before they can fully appreciate what the brand offers. Thus, seeking benefits, competitions, and special offers were benefits they expected from the brand. This led to certain BA which was important to them, such as advice and useful information, customer service, accurate and complete information about its products and services, and rapid feedback.

5.10.4.4 Anticipated benefits (AB) and intention to be involved (ITBI)

Generation Y students indicated that there should be benefits to being committed to their brand's social media pages, such as competitions and special offers. When these requirements were met *albeit*, in conjunction with the other independent variables, they indicated that they would start to interact with the brand.

5.10.4.5 Perceived usefulness (PU) and Intention to be involved (ITBI)

PU referred to three things. First, whether social networking sites could connect the individual with smartphone brands; whether it could help them stay in touch; and finally, whether it could help them stay informed. Thus, Generation Y students needed social media to enable them to communicate with the brand and find information, before they could have the ITBI with social media pages of smartphone brands. An important factor was whether the site that the brand used had the correct features for individuals.

5.10.4.6 Brand community (BC) and Intention to be involved (ITBI)

In BC, students showed that they wanted to share a common bond, wanted to be strongly affiliated, and wanted others to be concerned with their needs. When these prerequisites were met, they would go on to be involved in social media. Thus, it was important for a brand to have a community on the social networking sites of which the individual could be a part.

5.10.4.7 Brand loyalty (BL) and brand trust (BT)

Brand loyalty was important to students before they could trust a brand. Thus, Generation Y students had to be loyal to a brand's community, say positive things about the brand, and recommend the brand, before they could feel that they trust the brand. As the variable BT had engagement implied, after loyalty was achieved along with trust, engagement could also follow.

5.10.4.8 Brand loyalty (BL) and commitment (C)

Generation Y students felt that BL was necessary before they could be committed to a brand. Thus, when they felt loyal towards the brand, they could be committed to its social media pages. Within the variable C, trust was implied, which indicated that when BL was achieved, alongside commitment, a trust would also form between the Generation Y student and the brand.

5.10.4.9 Brand loyalty (BL) and advocacy intention (AI)

With regards to BL, Generation Y students felt that they must first be loyal to the brand before they could advocate and be loyal to its social media pages. Therefore, when BL was achieved, a brand could focus on AI. Moreover, as commitment was implied in AI, it could be assumed that when BL was achieved, and the student moved towards advocacy, a commitment to the brand as well as its social media pages could be expected.

5.10.4.10   Intention to be involved (ITBI) and brand trust (BT)

ITBI was originally hypothesised as being a mediator for BT. It was argued that before a Generation Y student could put their trust in a brand's social media pages, they first had to make use of them. This showed that communicating with the brand, connecting with the brand, networking, and keeping track of the brand's services would lead them to trust the brand, provided the brand met certain expectations and was honest. Thus, it is important for brands to ensure that those who are interested in their brand be guided towards using the social media pages of the brand. Then, when customers are satisfied, it will lead to brand trust.

5.10.4.11   Brand activities (BA) and brand trust (BT)

Next, within the scope of BA, students showed that there should be certain BA in place before they would trust the brand. This was coupled with the ITBI. Thus, for students to trust a brand, they must receive advice, useful information and customer service, which means that they want to see that the brand cares for them and can help them. With the implied engagement, the correct BA alongside trust could see Generation Y students engage with the brand on social media.

5.10.4.12   Brand activities (BA) and advocacy intention (AI)

BA also played a role in whether students would advocate the brand. Thus, it was not only C and BL that play a role but also the activities presented by the brand. When the correct activities were used, they could rally commitment, after which advocacy would follow. However, as a 10-factor model testing Generation Y students and social media regarding smartphones, BL, BC, and BA are needed to form a cohesive model.

5.10.4.13   Brand trust (BT) and commitment (C)

BT moving into C showed the importance of Generation Y students trusting a brand's social media pages before being able to be committed to it. Thus, when the individual felt they could trust the brand, they would be committed to their social media pages and would give maximum effort to those pages, feel a sense of duty, and invest time and energy into those pages. Focussing on BT is, therefore, an important aspect towards commitment and ultimately advocacy.

5.10.4.14   Commitment (C) and advocacy intention (AI)

Generation Y students showed that if they trusted a brand and became committed to it, they would invest their time and energy into supporting the brand's social media pages. When this happens, they would recommend their SMP, use their SMP frequently, buy and use related products, and give positive feedback online. Thus, it is important for brands to nurture trust and commitment in order for their customers to become loyal advocates of the brand. AI, however, also stems from brand loyalty and brand activities. Therefore, brands must keep in mind that for Generation Y students to become advocates of their brand, they will first have to invest time and energy into getting them to be loyal, create the right brand activities, and focus on building commitment and trust. It should be noted that this was the case for this study, and future studies might use variations of the model, in which case that might not be true. This will be discussed further in Chapter 6. The next section focusses on an alternative model to Model B2, called Structural Model C1.

5.10.5 Structural model C1

The next model shows a different path taken within the model fit, which had several different interpretations. This model showed that the data offered more pathways in which the brand could reach advocacy. Model C1 was added to show possible alternate pathways strictly according to the data collected. Therefore, Model C1 should be seen in the South African context and should only be seen and used as additional information to Model B2 and Model B1.
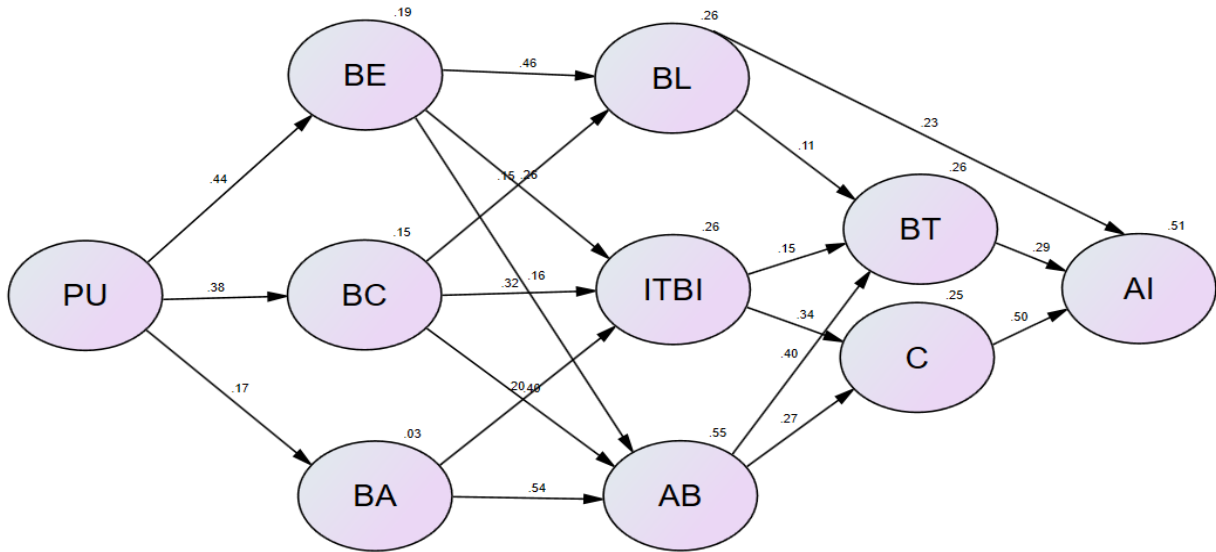
Figure 5-17:   Structural model C1

The following table shows the paths, estimates, SE, CR, and *p* for Model C1.

Table 5-37:   Path estimates

Path	Estimate	S.E.	C.R.	*p*
BE <– PU	0.281	0.036	7.895	***
BC <– PU	0.329	0.046	7.169	***
BA <– PU	0.105	0.032	3.290	0.001
BL <– BE	0.510	0.073	7.004	***
ITBI <– BE	0.430	0.085	5.068	***
AB <– BC	0.282	0.044	6.443	***
BL <– BC	0.121	0.048	2.513	0.012
ITBI <– BC	0.394	0.069	5.732	***
ITBI <– BA	0.349	0.089	3.908	***
AB <– BA	0.536	0.069	7.810	***
AB <– BE	0.153	0.051	2.987	0.003
BT <– BL	0.081	0.041	1.999	0.046
BT <– ITBI	0.075	0.027	2.783	0.005
C <– ITBI	0.278	0.044	6.309	***
BT <– AB	0.365	0.060	6.134	***
C <– AB	0.391	0.082	4.761	***
AI <– BT	0.395	0.065	6.103	***
AI <– C	0.423	0.043	9.766	***
AI <– BL	0.231	0.050	4.631	***

As Table 5-37 shows, all paths were significant (p < 0.050). The next table shows the model fit indices compared to Model B2, which was the altered version of the original model.

Table 5-38:   Model C1 fit

Model fit index	Model B2	Model C1
SRMR	0.071	0.080
RMSEA	0.046	0.048
IFI	0.923	0.915
TLI	0.916	0.907
CFI	0.922	0.914
CS/df	2.053	2.167
AIC	1682	1760
CAIC	2206	2279

Table 5-38 shows that Model C1 had an adequate model fit. The next table shows the mediation analysis.

Table 5-39:   Standardised indirect effects

Path	p
PU – BE – BL	0.001*
PU – BE – ITBI	0.001*
PU – BE – AB	0.001*
PU – BC – BL	0.001*
PU – BC – ITBI	0.001*
PU – BC – AB	0.001*
PU – BA – ITBI	0.001*
PU – BA – AB	0.001*
BE – BL – BT	0.001*
BE – BL – AI	0.001*
BE – ITBI – BT	0.001*
BE – ITBI – C	0.001*
BE – AB – BT	0.001*
BE – AB – C	0.001*
BC – BL – AI	0.001*

Table 5-39:   Standardised indirect effects (continued)

Path	*p*
BC – BL – BT	0.000*
BC – ITBI – BT	0.000*
BC – IBTI – C	0.001*
BC – AB - BT	0.001*
BC – AB – C	0.001*
BA – ITBI – BT	0.001*
BA – ITBI – C	0.000*
BA – AB – BT	0.001*
BA – AB – C	0.000*
BL – BT – AI	0.041*
ITBI – BT - AI	0.001*
ITBI – C – AI	0.001*
AB – BT – AI	0.001*
AB – C – AI	0.001*
* Significant	

Table 5-39 shows that all mediating paths were significant. Therefore, as the path analysis, model fit, and mediating paths were significant, Model C1 is deemed viable as an alternative to Model B2.

Model C1 shows that PU could be one of the main components in whether Generation Y students were, in the end, loyal towards a brand and whether they would advocate for it. As such, the model suggested that when Generation Y students felt that social media was useful to them, they would have BE, possibly interact in the BC, and look at BA. Thus, this model stated that one of the most important parts for brands was to use social media which Generation Y students feel is useful.

Next, their BE could lead to becoming loyal, to have ITBI, and to have several AB. As for BC, this could lead to their loyalty, to their ITBI and to AB. Lastly, BA determined whether they will have ITBI and whether they will AB. Therefore, for the next phase to be reached, the BE, the BC, and the BA should all be sufficiently satisfying.

BL and ITBI showed importance in whether Generation Y students would trust a brand. ITBI and AB determined whether BT and C would be achieved. Moreover, BL showed that it was an important determinant in whether Generation Y students would advocate their brand.

Lastly, BT and C played an important role in whether advocacy took place.

Model C1 shows a more complicated structure than Model B1, however, it shows the interconnectedness of the variables and their importance in the structure.

As can be seen from Table 5-37, the model fit for Model C1 was lower for that of Model B2. This meant that Model B2, being the altered version of the proposed model, was the most accurate. However, model C1 did show the complicated relationship between the variables and proposed an alternate method of reaching Generation Y students.

5.10.6 All models compared

From the conceptual model (Model B1), an altered model was proposed (Model B2), after which the last model (Model C1) was built to show the complexity of data, as well as the flexibility in the model. Where BT, C, and AI were concerned, engagement, trust, and commitment were added to the questioning in order to add flexibility for reduced or smaller models in future studies. However, no such models were tested in this study as the study set out only to test the conceptual model (Model B1). The conceptual model revealed flaws, which were then corrected in Model B2, as closely related to theory as possible. Table 5-40 below shows all the models juxtaposed in one table.

Table 5-40:   Juxtaposition of all models

Model fit index	Required result	Model A	Model B1	Model B2	Model C1	Best model
SRMR	< 0.080	0.045	0.114	0.071	0.080	B2
RMSEA	< 0.050 (< 0.100 adequate)	0.043	0.050	0.046	0.048	B2
IFI	≥0.900	0.934	0.907	0.923	0.915	B2
TLI	≥0.900	0.925	0.899	0.916	0.907	B2
CFI	≥0.900	0.933	0.907	0.922	0.914	B2
CS/ df	Lower is better	1.941	2.280	2.053	2.167	B2
AIC	Smallest positive value	N/A	1873.235	1682	1760	B2
CAIC	Smallest positive value	N/A	2382.020	2206	2279	B2

The comparison chart above shows that Model B2 shows the overall best fit.

The next section will juxtapose a data model using gender as a moderator, to ascertain whether there were significant differences in the model for each of the genders.

5.10.7 Gender juxtaposition

It is hypothesised that the Model B2 may differ slightly for female and male Generation Y students. As such, the following hypothesis is put forward.

$H_0 14$ – Model B2 shows no difference in preference between female and male Generation Y students.

$H_a 14$ – Model B2 shows a difference in preference between female and male Generation Y students.

Table 5-41: Gender juxtaposition for Model B2

Path	Estimate Female	*p* Female	Estimate Male	*p* Male	*p* for both	*p* for female only	*p* for male only
ITBI <– PU	0.251	***	0.341	***	***	-	-
ITBI <– AB	0.399	0.010	0.724	***	***	-	-
ITBI <– BC	0.327	***	0.007	0.960	-	***	-
BL <– BE	0.568	***	0.624	***	***	-	-
BA – AB	0.751	***	519	***	***	-	-
BT <– ITBI	0.085	0.004	0.103	0.013	***	-	-
BT <– BL	0.097	0.026	0.192	0.011	***	-	-
BT <– BA	0.438	***	0.280	0.002	***	-	-
C <– BT	0.543	***	0.619	***	***	-	-
C <– BL	0.186	0.011	0.228	0.092	-	***	-
AI <– C	0.429	***	0.499	***	***	-	-
AI <– BL	0.269	***	0.232	0.023	***	-	-
AI <– BA	0.308	***	0.221	0.034	***	-	-

Table 5-41 shows the juxtaposition of female and male Generation Y students regarding the altered model. The paths for Model B2 show that there are two instances in which there was significance for female Generation Y students but not male Generation Y students. These cases were ITBI <– BC, C <– BL. There was significance for all instances for female Generation Y students. This might show that BC is not as important to male Generation Y students and might prove an unsuccessful method in motivating them to be involved. Furthermore, as BC only had a connection to ITBI, the insignificance might show that BC is not as important a factor to male

students as it is to female students. Lastly, BL did not prove significant as a route to C, which could suggest that male students could be easier to persuade towards becoming C. The next section concludes this chapter.

5.11 CHAPTER 5 SUMMARY

This chapter showed the outcome of the pilot test, proving that the data were viable for the continuation of the study. Following, the data gathering process was discussed; 519 questionnaires were viable after cleaning, and missing data were treated. The demographic analysis showed the differences in several demographic variables through pie charts to aid the visual assessment of the data. Next, the exploratory study was conducted several times in order to filter out all data which were of low communalities and low loadings. Thereafter, the descriptive portion of the study was conducted, after which followed the test for normality. The test showed several data points were not optimal, and a second outlier removal was conducted. The exploratory factor analysis table that is seen in this chapter was based on the data after the second outlier removal process. All items grouped in the correct factors, as per expectation. This was found based on the principal component, Promax rotation was conducted, and factors set at 10, based on a priori criterion. Common method bias was briefly examined, and it was found that no bias was present in the study. The correlation analysis was conducted, and it was found that nomological validity was present and that all factors were significant and showed movement in the expected positive direction. The next section focused on comparing gender, university, and age, and it was found that very few differences existed between the variables introduced. The structural equation modelling followed and showed model fit for the measurement model. The conceptual model showed several flaws, which were corrected in a new model, which was then discussed briefly to illustrate how the paths would function. Next, a competing model was introduced to show the flexibility of the model. It was found that Model B2, the altered model of the conceptual model, performed the best in model fit and in AIC and CAIC measurements. Lastly, Model B2 was tested regarding gender, and it was found that slight differences could be seen in the paths for male students. Female students showed significance in all aspects. This outcome was briefly discussed. The next chapter concludes the study.

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The smartphone market has increased in size since the Apple iPhone and Google Android operating systems first made their appearance. This has completely changed the landscape of technology and how technology is used (Farah, 2018). The smartphone has become central to the lives of many, for work, play, and socialisation (Philips, 2014). However, with so many new smartphone brands on the market which compete with the more expensive brands, it has become more important than ever to differentiate from the proliferation of choice. Smartphones are a focal point in the lives of Generation Y individuals, as they have been born into technology. In particular, Generation Y students are seen as future leaders, trendsetters, and high-income earners. Overall, this generation uses social media more than their predecessors, which makes the symbiosis of smartphones and social media an ideal area of study.

Understanding how Generation Y students interact with social media and finding the factors that influence whether they use social media pages of smartphone brands is deemed crucial. Social media has an enormous effect on the decisions that users make (Sulleyman, 2017; DialogTech, 2016). A large marketing budget, with a focus on social media, has proven successful for some organisations; however, some have argued that differentiation lies in relationship marketing. The reason behind this is because of the homogeneity in products and services, as well as the capability of unknown manufacturers to offer high-end products (Stark & Stewart, 2011). This is especially true in the smartphone market where there are more brands than ever before, and new brands are constantly being developed. Thus, differentiation opportunities have shown themselves in the social media sphere where brands can build relationships, trust, commitment, and advocacy, which goes beyond the quality of products. To this end, the main objective of this study was to identify the factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students.

This chapter is the culmination of all the data, primary and secondary, gathered for this study. The first section, Section 6.2, states the overview of the study and is followed by the main findings in Section 6.3. Thereafter, the contributions of this study are discussed in Section 6.4. This is followed by recommendations based on the data collected, in Section 6.5. Limitations and future research opportunities are discussed in Section 6.6, after which the conclusion is drawn in Section 6.7.

6.2 OVERVIEW

This section discusses the layout of the study to assist in following the main findings set out in Section 6.3. As such, this section will give an overview of each chapter.

Chapter 1 commences with a brief introduction to the study, providing background theory. Section 1.2 is the problem statement, in which is discussed the reasoning behind the primary focus of the study. Next, the objectives of the study are discussed (Section 1.3.), followed by the research design and methodology (Section 1.4). In Section 1.5, ethical considerations are discussed, followed by a brief clarification of terminology (Section 1.6). The chapter classification is discussed in Section 1.7, followed by a brief chapter summary in Section 1.8.

Section 2.1 contained the introduction which served to discuss the layout of the chapter as well as provide a brief introduction to the theory. Section 2.2 discussed relationship marketing by addressing the history of relationship marketing; its shortcomings and characteristics; successful relationship marketing; international relationship marketing; customer relationship management; and advantages of relationship marketing. In Section 2.3, social media was discussed through an introduction, importance, usage, various social media sites, social media and business, social media marketing, social media data, social media privacy, and future trends. The following section discussed smartphones (Section 2.4) by discussing the most popular smartphone brands. Next, the Generation Y cohort was discussed in Section 2.5 by analysing their relationship with smartphones as well as with social media, and lastly with relationship marketing.

Chapter 3 commenced with a brief introduction, followed by marketing models influencing the conceptual framework in Section 3.2. Next, the factors identified in the conceptual framework were discussed. Each factor was explained in more detail in Section 3.4. Lastly, a conclusion was made in Section 3.5.

The introduction in Chapter 4 served to provide a brief overview of the chapter. Section 4.2 discussed the research paradigm and the marketing research approach was discussed in Section 4.3. This was followed by the research design in Section 4.4. The sampling procedure followed in Section 4.5, after which the data collection method followed in Section 4.6. Data preparation was the subject of Section 4.7, followed by the statistical analysis in Section 4.8. The factor analysis was examined in Section 4.9, and the confirmatory factor analysis in Section 4.10. The structural equation modelling was discussed in Section 4.11, followed by a brief conclusion in Section 4.12.

In section 5.1, the introduction briefly stated what would follow in the chapter. Section 5.2 discussed the pilot test results, followed by the data gathering process in Section 5.3. The

preliminary data analysis was discussed in Section 5.4, and the exploratory factor analysis in Section 5.5. In section 5.6, the descriptive statistics were discussed, and common method bias in Section 5.7. In Section 5.8, the correlation analysis was discussed, after which the juxtaposition between variables was discussed. Structural equation modelling followed in Section 5.10, after which the conclusion for the chapter could be found in Section 5.11.

6.3 MAIN FINDINGS OF THE STUDY

The main findings of the study will be discussed in the order in which it appeared in Chapter 5, to provide a linear overview of the chapter. The pilot test results were discussed in Section 5.2. The pilot test was conducted on 80 respondents and after cleaning, 64 of the questionnaires were deemed usable. The statistics gained from the analysis of the pilot test were deemed sufficient for the main study to proceed.

Section 5.3 comprised the data gathering process, in which data were collected from three universities within the Gauteng province. After permission had been sought, questionnaires were distributed to willing student participants. The students were assured of privacy and anonymity. In total 600, questionnaires were distributed, and, after cleaning, 519 questionnaires remained; of these, 144 questionnaires were viable from the comprehensive university, 208 from the university of technology, and 167 from the traditional university.

The preliminary data analysis (Section 5.4) encompassed coding, which showed the coding of each of the sections in the questionnaire. Section A covered the demographics; Section B sought to find the preferred smartphone brand of Generation Y students, as well as their favourite social media platforms; and Section C comprised the main questions for the empirical study. Missing data for questionnaires which had blank spaces below the 10 per cent threshold were discussed in Section 5.4.3. A test for data normality was conducted in Section 5.4.4 and several outliers were removed accordingly. The demographic analysis was conducted in Section 5.4.5 and showed that most students were from South Africa and from Gauteng province. Female representation in the study was higher than male representation, and African students made up the bulk of the study. The most spoken language was Sesotho, followed by Zulu and Tswana. The final portion of the demographics section aimed to assess the social media sites that Generation Y students used. It was found that most students used Facebook, YouTube, and Instagram. The next section looked at smartphone usage, and it was determined that Generation Y students preferred Samsung, Apple, and Huawei. When assessing preferred social media platforms, YouTube was first, followed by Facebook, Instagram, Twitter, and Google Plus. Lastly, Section 5.4 focused on the tabulation of variables. This section aimed to show the frequencies and means of each variable in order to explain how the items affected the mean. The highest

mean was found in brand trust, followed by brand activities, and brand experience. Next, advocacy intention, brand loyalty, and anticipated benefits followed. Lastly, the intention to be involved, commitment, brand community, and perceived usefulness.

Section 5.5 focused on the exploratory factor analysis portion of the study. The final analysis showed sufficient communalities and loadings and showed 10 factors as planned. The multicollinearity test yielded acceptable results.

The descriptive statistics portion of the study followed in Section 5.6, which showed that all factors fell within the acceptable skewness range of -2 and 2 after the second round of outlier removal. Within kurtosis, all factors fell within the accepted -2 to 2 range. As for the means, all were found to be above 4.6. No common method bias was not present and in Section 5.8, the correlation analysis showed significance and movement in the expected direction. Thus, nomological validity was present. The juxtaposition between variables was conducted in Section 5.9. Despite minor differences showing in the analysis, none of the differences was deemed significant enough to base inferences on. In Section 5.10, structural equation modelling was discussed, the model fit was assessed as per Table 5-25, which showed sufficient fit. Reliability and validity showed that the correlation matrix of the factor analysis was sufficient, followed by the correlation matrix of the measurement model, which was also deemed viable. Internal consistency, as per Table 5-28, showed that the Cronbach's alpha was sufficient in all cases, and the average inter-item correlation range was also viable for structural models to be built. Structural model B1 followed, which was the conceptual model. All model fit indices were sufficient except for TLI and SRMR. Moreover, path estimates also had minor problems, the model was thus changed, and a new model proposed: Model B2. Model B2 showed significance for all paths and sufficient model fit in all instances. Lastly, mediation showed that all mediating paths were significant. Thus, Model B2 proved to be a valid model across all indices. Each of the paths was briefly discussed after the viability of the indices was shown. A final, alternate model was created, Model C1, to show the flexibility of the model used. Model C1 also showed significant paths, proper fit, and valid mediating effects. In Section 5.10.6, all models were compared, showing Model B2 as the best model.

A final juxtaposition was conducted based on gender, using Model B2. Here it showed that there were differences, in that BC was perhaps less important to male Generation Y students than to female Generation Y students. BL did not lead to commitment for male Generation Y students, which could mean that loyalty might not lead to commitment in as easy a fashion as with female Generation Y students. Section 5.11 concluded the chapter. The next portion of this chapter will explain the contributions made by this study.

6.3.1 Achievement of main findings

The main empirical objectives of the study were stated in Section 1.3.3. Each was achieved through varying methods in Chapter 5. This is shown next.

1. Determine Generation Y students' brand loyalty, brand experience, perceived usefulness anticipated benefits, view on brand activities, the perception of brand community, intention to be involved in social media pages of smartphone brands, brand trust, commitment, advocacy intention.

The first objective was achieved in Section 5.4.7 in which the descriptive statistics were assessed and discussed, which expanded on Generation Y students' brand loyalty, brand experience, perceived usefulness anticipated benefits, view on brand activities, perception of brand community, intention to be involved in social media pages of smartphone brands, brand trust, commitment, advocacy intention

2, Determine whether there is a difference in male and female, different ages, and different universities, responses regarding brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, brand community, intention to be involved, brand trust, commitment, advocacy intention.

The second objective was achieved in Section 5.9 where the juxtapositioning of variables was discussed. Gender differences were discussed using the independent samples t-test and Cohen's D. Next, differences between university students were explored using the Kruskal-Wallis H test.

3. Empirically test a model to assess factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students.

A structural model was tested in Section 5.10.3 and was improved upon in Section 5.10.4. Thus, the proposed model was tested to assess the factors put forth in Chapter 1. Findings were discussed, and a new model was proposed, which merges global findings and literature to South African data.

4. Ascertain whether brand loyalty, brand experience, perceived usefulness, anticipated benefits, brand activities, and brand community are mediated by intention to be involved, to brand trust.

Mediation was tested using the standardised indirect effects in Section 5.10.3.2, Table 5-32. Subsequently, altered paths were tested and given in Table 5-35 and Table 5-39.

5. Test, whether intention to be involved, is mediated by brand trust, to commitment, and whether brand trust is mediated by commitment, to advocacy intention.

The final objective was met similarly to objective 4, through the standardised indirect effects test, in Table 5-32, Table 5-35, and Table 5-39.

After the assessment of the data and the achievement of the goals set out in Chapter 1, this study endeavoured to find a model that would benefit South African organisations as it tested the data that was gathered in South Africa. Next, is shown the model that achieved significance both in paths, model fit, and mediation.
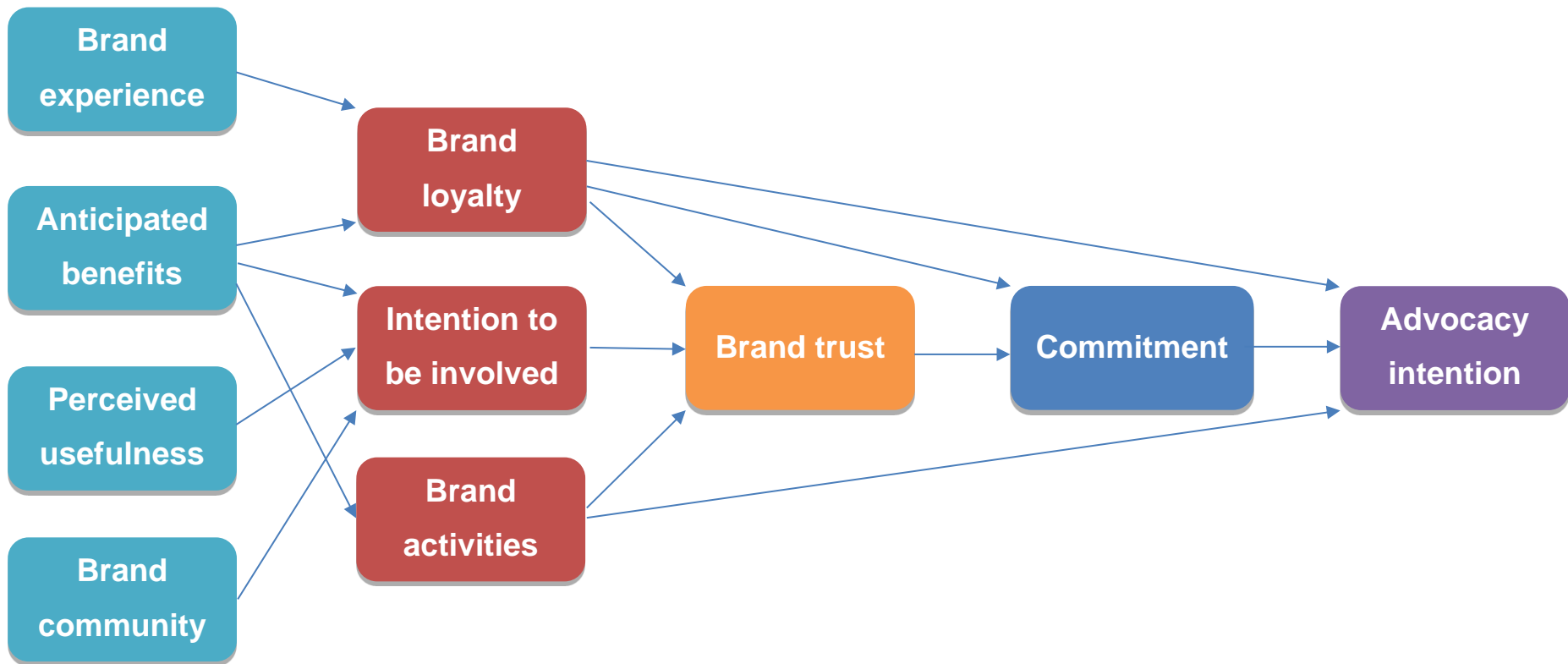
Figure 6-1:   Proposed model (Model B2)

6.4 CONTRIBUTION OF THE STUDY

This study contributes to the scarce literature conducted in South Africa regarding Generation Y students, and how they interact with smartphone brands' social media pages. Moreover, this study contributes to global knowledge by showing the effect of factors such as brand loyalty on the tendency of the Generation Y cohort to make use of social media pages of smartphone brands. As social media has become an important factor in relationship marketing, this study showed how to motivate the Generation Y cohort to advocate the social media pages of smartphone brands. Therefore, the data in this study could be used by smartphone brands in order to reshape their social media sites to better fit the factors that influence Generation Y students' commitment and intention to advocate the brand.

This study proposed an alternate model to be used in the South African context, which showed that global studies and data does not translate directly to the South African environment. Therefore, this study adds a model and explanation to organisations who wish to gain traction in the smartphone market, or in social media in general. The model used showed methods of achieving success, according to the data, in the social media sphere, which has become increasingly important to most businesses. Therefore, it is suggested that organisations, smartphone and others, use the data to assess their social media relationship marketing. Organisations which do offer different products or services may alter the model to assess their own offerings, for them to achieve social media success.

This study adds validity to the scales used, in the South African context, but can also be used internationally, as they are now verifiably successful in their statistical viability. Thus, the model can be altered, used in full, or used in part, by other academics, globally. Moreover, this study condenses several ideas regarding social media, relationship marketing, smartphones, and the Generation Y cohort, which enables other academics to streamline their own studies, by using the data.

This study also informs on several statistics from literature, some of which was difficult to find, such as statistics on smartphone sales, among others. Therefore, this study may be used for others who are studying social media or smartphones, to use the statistics as they see fit, to decrease the amount of time needed to search for the data.

Therefore, this study contributes to a saturated market where competition is rife, by proposing that high-quality products by smartphone manufacturers can be augmented by social media offerings and interactions. This study provides a blueprint for smartphone manufacturers to reach brand advocacy, which aims to help them in distinguishing themselves from other manufacturers.

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Moreover, this model could be adapted to other electronics and brands. Lastly, this study provided an overview of what South African Generation Y students' thoughts are about varying smartphone brands as well as social media sites. This knowledge can help brands in showing them what Generation Y students' attitudes are towards different brands, therefore enabling more popular brands to capitalise on the information, or less popular brands to work on their image. This could be done by using the model in the study to make better use of social media to motivate individuals to potentially switch, or in other cases, to become brand advocates. As has been shown in this study, several smartphone makers have risen to the top of the sales figures, only to fall to being barely used at all. This study aimed to help smartphone manufacturers to build relationships with customers to differentiate themselves from a market that has shown to shift rapidly. As South Africa is a growing economy, where internet penetration is on the increase, as well as smartphone adoption, it is important for brands to gain a deeper understanding of what customers want, beyond simply a product offering. This study achieves this through showing the effect of brand loyalty, how to get customers, especially Generation Y students to use social media pages, and a hypothetical path to achieving brand advocacy, the highest form of relationship with a brand.

6.5 RECOMMENDATIONS

The recommendations in this section will first concentrate on the variables which were used in this study and afterwards, focus on literature in order to make recommendations suited to Generation Y students.

6.5.1 Brand loyalty

Generation Y students showed a high level of loyalty towards smartphone brands and would readily recommend them to peers, be it in person or on social media. This is a golden opportunity for brands which already enjoy a high level of loyalty to get more followers on their social media sites. This can be done in various ways, such as posting original content, the correct use of 'hashtags', engaging with individuals, making the content which is on the site shareable, and remaining consistently active on social media (Lee, 2014). Brands should also find the best time to post content (Ellering, 2018) and focus on the right content on the right sites (Foremen, 2017). By posting the right content, those who browse social networking sites will find it useful or entertaining and share the content. The content posted should also include news about the brand and about product offerings as the Generation Y students indicated that they would continue promoting the brand. Furthermore, brands should engage with their community and motivate the community to communicate among themselves.

As for brands that are not popular or do not enjoy a high rate of brand loyalty, they can follow many of the same guidelines as those who do. However, they should focus more on quality products and quality content; the more content is generated, the better the chances of that content being shared on social media. As shown in this study, the brands that are followed the most, such as Samsung and Apple, put forth high-quality products which are an important factor in brand loyalty.

6.5.2   Brand experience

The brand experience showed that Generation Y students were satisfied with their experiences of their favourite smartphone brands. It is thus recommended that smartphone brands continue to seek the highest quality materials and user experience in order to keep individuals satisfied. Good brand experiences lead to positive behaviour, which means that brands should focus on creating positive experiences. Where individuals feel that experiences were negative, it is important for brands to remedy that as quickly as possible in order to not lose the customer and to prevent bad publicity. There are several methods of coming back from bad experiences such as setting definite standards, using the correct language, ensuring that employees know what extraordinary service looks like, making the service and products easy to use, and ensuring that where there are shortcomings, they are readily fixed and not simply pushed aside or ignored (Solomon, 2017). Moreover, it is important for brands to continue innovating and not simply settle for mediocrity. Brand experiences are crucial to the survival and profitability of that brand, especially in the smartphone market where there is extreme competition. Thus, brands should focus on the best experience they can offer, which will lead to positive behaviour (Youtech & Associates, 2015). Varying brands could approach malls, universities, and other public areas where they can provide phones for the public to experience the phones themselves on a trial basis. Salespeople can be on hand to guide users in showing them the user-friendliness of their products and the benefits of using their brand over others. It is important for organisations to be proactive in getting potential customers to get first-hand experience with their brand, and not to simply wait for the individual to enter a shop to test their products. This is especially true for smartphones as they are easy to experience and test.

6.5.3   Perceived usefulness

Perceived usefulness ascertained whether Generation Y students found social media sites useful. They indicated that they found social media sites useful as they helped them in their daily lives and to connect with smartphone brands. To this end, it is important for smartphone brands to focus on the correct social networking sites. As there is a finite amount of resources and time available, smartphone brands should ensure that they are visible and active on the easiest and

most efficient social networking sites. Furthermore, as the content which smartphone brands develop would likely be pictures, videos, infographics, and the like, they should focus on sites such as Facebook, Twitter, YouTube, and Instagram. They could also use Reddit AMAs (which provides an opportunity for the public to ask questions and for brands to answer those questions) and Snapchat for marketing drives. However, by using the main social networking sites, brands could maximise the number of customers they interact with. Brands could take initiative and partner with social media influencers. In this way, influencers can show others just how useful social media can be in connecting with brands and keep the public informed about the brand's latest news.

6.5.4 Anticipated benefits

The Generation Y students who partook in the study showed a very high interest in social media pages offering benefits, competitions, and special offers. Thus, it is important for brands to find out what their audience wants and to offer it to them. Competitions and special or exclusive offers have been a staple for numerous brands for decades and are an easy way to attract audiences. By offering special deals and ensuring that followers know that it is only applicable to those who follow the brand on social media, it inspires a sense of loyalty to the brand and is a method of ensuring that individuals return to the social media pages (Belosic, 2013). Social media gives brands a way to reach a broad audience at a low cost and to maintain their brand following. In many cases and with the abilities which Facebook and Twitter afford a brand, it is easier to ask followers of the brand what they want from the social media pages. Here, brands can give polls and offer a variety of services such as competitions, special offers, discounts, exclusive offers, insider news, and the like and find out what their audience truly wants (Green, 2017).

6.5.5 Brand activities

Generation Y students showed a high interest in brand activities, which refer to activities that a brand hosts on their social media site. They show a need for new product news, info, customer service, and feedback. This shows that individuals join social media pages for very specific reasons. Generation Y students showed particular favour towards good customer service; thus, it is recommended that brands implement programming which enables them to interact with customers. To this end, there should be customer service agents available to answer questions promptly and diplomatically (Barnhart, 2015).

6.5.6 Brand community

Generation Y students showed a high mean average for brand community, which translates to brand community being important to them. They showed an affinity for sharing common bonds.

Thus, brands should encourage those on their social media pages to talk and share their opinions. This can be done in several ways: starting conversations, asking questions, running polls, and posting content that requires participation from their social media followers. Thus, in order to gauge the type of content to post, it is recommended that brands use data analytics to find the key influencers on their site and engage with them in order to prompt publicised conversations. Furthermore, contests and humorous content are often the keys to enhancing publicity on a brand's social media page as it sparks participation from the followers and their social networks (Smith, 2017c). Lastly, Generation Y students showed that they would be strongly affiliated to others in the community.

6.5.7 Intention to be involved

The mean score for ITBI showed that most students would use social media to interact with their favourite smartphone brand. Offers applicable to specific countries would be more useful to individuals and give a sense of inclusion. The mean score for keeping track of services offered was also high, showing that Generation Y students have a broader general interest in the brands which they like. They also indicated that they want to communicate, connect, network, and be kept up to date with their favourite brands. Therefore, brands would do well to cultivate the willingness of the Generation Y students to engage with them, by making conscious efforts to maintain customer relations through their social media pages.

6.5.8 Brand trust

For Generation Y students to trust a brand, certain metrics must be met. The most important thing to the Generation Y student cohort is to be able to ask questions about problems encountered with their smartphones and to be assisted over social media. Therefore, it is important for brands to train their social media representatives to assist their customers professionally and efficiently. Next, students also showed a need to feel satisfied and for their expectations to be met. Brands should ascertain their customers' needs and take necessary actions towards fulfilling them, within the bounds of reason. The key to creating brand trust is to convince customers that the brand has its best interests at heart by delivering on promises and being transparent (Goodman, 2012).

6.5.9 Brand commitment

Once trust has been gained, there are certain advantages for the brand. The Generation Y students will become much more committed, in that they will invest their time and energy to support the brand's social media pages. The brand should encourage social media activity among those who trust the brand. For the commitment to grow, brands should convey a feeling of simplicity, expert knowledge, assistance, and authenticity. Brands should ensure that their

representatives on social media are positive about the brand, believe in the brand, and convey a sense of community and relationship when communicating with their audience.

6.5.10 Advocacy intention

Generation Y students showed a keen interest in saying positive things about a brand's social media pages when they were committed to it. It is made simpler for brands to share content and let content go viral when individuals are committed and trust the brand. Thus, it is recommended that brands look at the picture holistically and acknowledge the hierarchy of events which lead to positive outcomes for the brand; that is, brand trust followed by brand commitment.

6.5.11 Final recommendations

It is recommended that brands look at their social media pages in a holistic view as part of their overall marketing, which also includes the physical product. A well-functioning product allows for a brand's social media to be focused on community and content. Brands should also focus on user-friendly social media platforms where they can easily communicate with and assist users of all segments. Following this, brands should build brand trust through factors such as honesty, transparency, and expert knowledge. This will enable users to trust the brand, which will lead to their commitment to the brand. Once committed, brands should encourage users to be active and to share and discuss content. The brand can also focus on collaborating with social media influencers in order to expand their brand's reach among the public. All of this should be executed with well thought out content which is humorous, not offensive, and easy to share. Brands should also offer contests, prizes, and exclusive offers on their social media pages as a testament to their commitment to their current clientele and to create publicity for themselves. Lastly, the study showed that there are barely any statistical differences between male and female Generation Y students regarding the variables tested, which means that homogenous campaigns can be created.

6.6 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study measured the factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students. This study aimed to be as comprehensive as possible, but certain limitations were observed. As such, other research opportunities may arise from this study, both from the knowledge gained as well as from the limitations encountered.

This study made use of non-probability convenience sampling due to financial, time, and sample frame limitations. Furthermore, this study focused on Generation Y students and used Gauteng

province as its sample base. Lastly, a single cross-sectional research design was used to gather the data. As such, future researchers could use probability methods where they can obtain a sample frame that enables such. Future studies may explore generational cohorts other than Generation Y students, which may allow for probability sampling and, ultimately, a comparative study. Moreover, future studies could spread this research topic across other provinces or countries. Lastly, a longitudinal study may prove useful in studying how effects change over time, as opposed to focusing on subjective impressions and behaviours in one time frame.

Future studies could also use a larger respondent rate. This study made use of 519 respondents after viability was checked, where future studies might use more in order to improve upon the statistics. In interpreting the study, smartphone brands can see which variables are important in a social media setting and use those variables to their advantage. Lastly, future studies could use Social Norms as a construct to ascertain what peers of the Generation Y cohort think of social media and relationship marketing.

6.7   CONCLUSION

The use of social media is at an all-time high, and smartphones have become centre-place to the lives of millions of people. These two factors play an important role in the behaviour of many. However, competition has increased immensely in the last decade, and being a smartphone vendor has become more difficult than ever. Social media has shown itself as a distinguishing factor. This study measured the factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students. There are important factors for smartphone brands to understand in order to gain an advantage in the social media marketing spectrum. Using this model, smartphone brands can study South African Generation Y students' views of social media, smartphones, and how to steer them towards brand trust, brand commitment, and intention to advocate. This model may also be adapted in future studies in different regions and among different segments. This paper aimed to be a comprehensive study on how to encourage Generation Y students to use the social media pages of smartphone brands loyally and fully.

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ANNEXURE A: QUESTIONNAIRE

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students

Dear Respondent,

My name is Hugo van Schalkwyk. I am registered as a full-time student, pursuing a PhD degree in Marketing Management at the North-West University (Vaal Triangle Campus), and I am currently working towards my dissertation under the supervision of Dr R. Muller and Prof A.L Bevan-Dye.

The purpose of this study is to investigate the Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students. Please, take a few minutes to assist by completing the attached questionnaire. It should not take you longer than 8 - 12 minutes to complete. Participation in the study is voluntary. All responses are confidential and will merely be outlined in the form of statistical data in the analysis. All data will only be used for research purposes.

Thank you for your important contribution towards this study!

JH van Schalkwyk
North-West University
078 7708 083
hugvsc@gmail.com

THANK YOU FOR TAKING THE TIME TO FILL IN THE QUESTIONNAIRE!

Smartphone definition:
A smartphone is a mobile phone with highly advanced features. A typical smartphone has a high-resolution touch screen display, WiFi connectivity, Web browsing capabilities, and the ability to accept sophisticated applications. The majority of these devices run on any of these popular mobile operating systems: Android, Symbian, iOS, BlackBerry OS and Windows Mobile.

Social media definition:
Social media is the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Examples include Facebook, Twitter, Instagram, Google Plus, and LinkedIn

PLEASE, ANSWER EVERYTHING!

SECTION A: DEMOGRAPHICAL INFORMATION

Please mark the appropriate box with a cross (X) or write down your answer where applicable.

Country of origin:		
1.	South Africa	Other

Province of origin:					
2.	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo
	Mpumalanga	Northern Cape	North West	Western Cape	Other

Name of institution:			
3.	HEI A	HEI B	HEI C

Gender:		
4.	Female	Male

Ethnic group:			
5.	African	Asian	Coloured
	Indian	White	Other

Home language:				
6.	Afrikaans	English	Ndebele	Sepedi
	Sesotho	Swazi	Tsonga	Tswana
	Venda	Xhosa	Zulu	Other

Age:								
7.	< 18	18	19	20	21	22	23	24	24 <

I make use of the following:			
8.	Facebook	Twitter	Instagram
	YouTube	Google Plus	LinkedIn

SECTION B:

Please answer the following questions about your smartphone and social media preferences. **Please cross (X) your relevant responses**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I prefer using this smartphone brand (Please, rate all of them):						
1. Samsung	1	2	3	4	5	6
2. Apple	1	2	3	4	5	6
3. BlackBerry	1	2	3	4	5	6
4. Nokia	1	2	3	4	5	6
5. LG	1	2	3	4	5	6
6. Sony	1	2	3	4	5	6
7. Xiaomi	1	2	3	4	5	6
8 HTC	1	2	3	4	5	6
9 Huawei	1	2	3	4	5	6
I prefer to follow brands on the following social media platforms:						
10. Facebook	1	2	3	4	5	6
11. Twitter	1	2	3	4	5	6
12. Instagram	1	2	3	4	5	6
13. Google Plus	1	2	3	4	5	6
14. YouTube	1	2	3	4	5	6

SECTION C:

Please answer the following questions. **Please cross (X) your relevant responses**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
When thinking about my favourite smartphone brand, I intend to:						
1. continue to purchase the brand	1	2	3	4	5	6
2. continue to search for info about the brand's new product offerings	1	2	3	4	5	6
3. be loyal to their community	1	2	3	4	5	6
4. say positive things about the brand	1	2	3	4	5	6
5. recommend the brand to other people	1	2	3	4	5	6
6. recommend the brand to other people on social media	1	2	3	4	5	6
My favourite smartphone brand:						
7. makes a strong impression on me	1	2	3	4	5	6
8. is interesting	1	2	3	4	5	6
9. brings up good feelings	1	2	3	4	5	6
10. elicits strong emotions	1	2	3	4	5	6
11. stimulates my curiosity	1	2	3	4	5	6
Social Networking Sites enable me to:						
12. be empowered in my personal life	1	2	3	4	5	6
13. connect with smartphone brands	1	2	3	4	5	6
14. stay in touch with smartphone brands	1	2	3	4	5	6
15. stay in informed about smartphone brands	1	2	3	4	5	6

Please answer the following questions. **Please cross (X) your relevant responses** **SMP = Social Media Page**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
It is important to me that my favourite smartphone brand's SMP offer:						
16. benefits for those committed to their SMP	1	2	3	4	5	6
17. competitions	1	2	3	4	5	6
18. special offers	1	2	3	4	5	6
It is important to me that my favourite smartphone brand's SMP offer:						
19. new product news	1	2	3	4	5	6
20. advice and useful info	1	2	3	4	5	6
21. customer service	1	2	3	4	5	6
22. accurate and complete information about its products and services	1	2	3	4	5	6
23. rapid feedback	1	2	3	4	5	6
Ideally the community members on my favourite smartphone brand's SMP should:						
24. benefit from the community	1	2	3	4	5	6
25. share a common bond	1	2	3	4	5	6
26. be strongly affiliated	1	2	3	4	5	6
27. provide me with product information	1	2	3	4	5	6
28. be concerned with each other's needs	1	2	3	4	5	6
29. share opinions about the product	1	2	3	4	5	6
30. recognise special occasions and send greetings to one another	1	2	3	4	5	6
31. take note of my opinions	1	2	3	4	5	6
I intend on using my favourite smartphone brand's SMP in the near future to:						
32. communicate with the brand	1	2	3	4	5	6
33. connect with the brand	1	2	3	4	5	6
34. network with the brand	1	2	3	4	5	6
35. keep track of services offered by the brand	1	2	3	4	5	6
36. participate in the brand community	1	2	3	4	5	6
37. find information about the brand	1	2	3	4	5	6
38. participate in competitions offered	1	2	3	4	5	6
39. take up special offers by the brand	1	2	3	4	5	6

Please answer the following questions. **Please cross (X) your relevant responses** **SMP = Social Media Page**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I would engage with my favourite smartphone brand's SMP if it:						
40. takes good care of me	1	2	3	4	5	6
41. meets my expectations	1	2	3	4	5	6
42. inspires confidence in them	1	2	3	4	5	6
43. never disappoints me	1	2	3	4	5	6
44. guarantees satisfaction	1	2	3	4	5	6
45. is honest and sincere	1	2	3	4	5	6
46. is reliable in solving problems	1	2	3	4	5	6
47. makes any effort to satisfy me	1	2	3	4	5	6
48. helps me if there is a problem with my smartphone	1	2	3	4	5	6
If I trust a smartphone brand's SMP, I would:						
49. be very committed to their SMP	1	2	3	4	5	6
50. believe that their SMP deserves my maximum effort	1	2	3	4	5	6
51. feel a sense of duty to ensure that their SMP is successful	1	2	3	4	5	6
52. invest time and energy to support their SMP	1	2	3	4	5	6
If I were committed to a brand's SMP, I would:						
53. say positive things about their SMP	1	2	3	4	5	6
54. recommend their SMP to others	1	2	3	4	5	6
55. use their SMP frequently	1	2	3	4	5	6
56. buy and use their products	1	2	3	4	5	6
57. talk up the brand to my friends	1	2	3	4	5	6
58. spread good word about the brand	1	2	3	4	5	6
59. give the brand a lot of positive word-of-mouth online	1	2	3	4	5	6
60. recommend this brand to friends and family on social media	1	2	3	4	5	6

THANK YOU!

ANNEXURE B: ETHICAL CLEARANCE

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

FACULTY OF ECONOMIC SCIENCES AND INFORMATION TECHNOLOGY

ETHICS CLEARANCE DOCUMENT

Dissertation (M)	
Thesis (PhD)	**X**
Article	
Hons	

SUPERVISOR				
Study Leader / Promoter / Author(s)	Dr Re-An Müller			
	Prof A.L Bevan-Dye			
STUDENT / AUTHOR				
Name	J van Schalkwyk (20199422)			
Student / Staff Number				
Registered Title of Dissertation or Thesis or Project Title of Article	Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students			
School	Accounting	Economics **X**		Information Technology
ETHICAL CLEARANCE				
Ethics clearance number	ECONIT-2017-051			
Date (of Ethics Sub Committee Meeting)	6 June 2017			

....
CHAIRPERSON: ETHICS COMMITTEE

10 June 2017 ....
DATE

....
RESEARCH DIRECTOR

10 June 2017 ....
DATE

Dr. Re-an Müller
Per Email: Rean.Muller@nwu.ac.za

NWU RDGC PERMISSION GRANTED / DENIED LETTER

Based on the documentation provided by the researcher specified below and after being reviewed at the meeting held on 29/08/2017 the **NWU Research Data Gatekeeper Committee (NWU-RDGC)** hereby grants permission for the specific project (as indicated below) to be conducted at the North-West University (NWU).

Project title: *Factors influencing effective relationship marketing by smartphone brands through social media amongst Generation Y students.*

Supervisor/Promoter: Dr. Re-an Müller
Co-supervisor: Prof. Ayesha Bevan-Dye
Student: Mr JH van Schalkwyk

NWU-RDGC reference no: NWU-GK-2017-024
NWU Ethics reference no: ECON-2017-051

Approval date: 29/08/2017   **Expiry date:** 29/08/2018

Specific Stipulations:

- *The assistance in the distribution of the questionnaire by the specific lecturers should be viewed on a strictly voluntary basis, and such lecturers can under no circumstances be held responsible for any failures that may occur during the distribution process.*

General Conditions of Approval (ONLY IF APPLICABLE):

- The NWU-RDGC will not take the responsibility to recruit research participants or to gather data on behalf of the researcher. This committee can therefore not guarantee the participation of our relevant stakeholders.
- Any changes to the research protocol within the permission period (for a maximum of 1 year) must be communicated to the NWU-RDGC. Failure to do so will lead to withdrawal of the permission.
- The NWU-RDGC should be provided with a report or document in which the results of said project are disseminated.

Please note that under no circumstances will any personal information of possible research subjects be provided to the researcher by the NWU RDGC. The NWU complies with the Promotion of Access to Information Act 2 of 2000 (PAIA) as well as the Protection of Personal Information Act 4 of 2013 (POPI). For an application to access such information please contact Ms Amanda van der Merwe (018 299 4942) for the relevant enquiry form or more information on how the NWU complies with PAIA and POPI.

The NWU RDGC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the NWU RDGC for any further enquiries or requests for assistance.

Yours sincerely,

Prof. Marlene Verhoef
Chair: NWU-RDGC

ANNEXURE C: SEM GRAPHICAL OUTPUT