Factors that influence students' engagement with the Facebook page of a selected University

by

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DEDICATION

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“and we know that all things work together for good to them that love God, to them who are the called according to His purpose. What shall we then say to these things? If God be for us who can be against us” Roman 8:28-31.

“The function of education is to teach one to think intensively and to think critically. Intelligence plus character- that is the goal of true education” Dr. Martin Luther King Jr.

EXECUTIVE SUMMARY

Customer engagement creates an environment in which the customer can interact directly with the brand. Customer engagement is an important method that marketers apply to retain customers by creating loyalty and positive word of mouth, and this is also true in higher education. As competition within university institutions increases, engaging with students provides the university with direct access to students' concerns, wants and expectations about the university. There are many social media platforms, which students can use to engage with their university, and Facebook is a popular tool used by this generation.

On daily basis students spend a great deal of time on their Facebook accounts and they follow brands that are interesting, informative and fun. It is therefore important for universities to understand the factors that would increase students' need to engage with the university's Facebook page. These factors will assist in providing an analysis, which the university can use on their Facebook page to encourage engagement, increase loyalty, positive word of mouth and a satisfactory university experience for the students.

A quantitative research study through surveys was conducted with the third year Faculty of Management students at the University of Johannesburg (UJ). Third years were targeted as they had more experience with the UJ Facebook page than other year groups. A non-probability quota sampling method was employed, which is a combination of judgement and convenience to access a representative sample from all eight departments in the specific faculty. From the 600 questionnaire distributed 399 could be used for analysis to achieve the main objective to determine the factors that influence student engagement with the UJ Facebook page.

The two main methods used to analyse the data were Exploratory Factor Analysis (EFA) and Structural Equation Modelling (SEM). EFA was employed to group similar variables, test and verify the scale construction, reduce the information and ultimately to simplify the data for further analysis. SEM was employed to test the proposed casual relationships relating to the independent variables (perceived ease of use, critical mass, capability, and perceived playfulness), the intervening variables (perceived usefulness and intention to use) the moderate variable (trustworthiness) and the dependent variables (actual use/customer engagement) of the UJ Facebook page.

The seven factors thus influencing customer engagement on the UJ Facebook page are: perceived ease of use, critical mass, capability, perceived playfulness, perceived usefulness, intention to use and trustworthiness.

The results indicated that there are positive relationships between all the paths, and that students find the UJ Facebook page easy to use, capable to cater to their needs, playful and that it has critical mass. Furthermore, students did not feel inclined to visit the UJ Facebook page regularly because as much as the page is functional at some level, it does not exceed their expectations. The students want the functionality (quality) of the UJ Facebook page to exceed what it is at the current moment. Students want a Facebook page that provides them with the university updates such as the academic calendar updates and general university issues, sport and life events on a daily basis. It is also evident that students value humour and entertainment that can be applied to attract students for further engagement. It is thus recommended that universities constantly update information and post current event information in an engaging manner that can at times be entertaining and humoristic.

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CHAPTER ONE

INTRODUCTION TO THE RESEARCH PROBLEM

1.1 Introduction

Customer engagement has become a key concept to organisations in order to comprehend the customer's wants and needs (Sashi, 2012:258). Although there are various social media platforms to allow engagement with customers, Facebook is one of the most popular (Bolkan, 2015). Facebook is a social networking website that assists friends and family to communicate with one another online. Sebate, Berbegal-Mirabent, Canabate and Lebherz (2014:1002) indicated that as more organisations adopt Facebook as a marketing tool, they also need to understand why a customer will rather interact with their Facebook page instead of communicating directly with their website. Customers are bombarded daily with thousands of media messages and will only engage with organisations through Facebook if the site fulfils certain criteria. It is therefore important to investigate these criteria or factors that can influence customer engagement with a Facebook page. According to Rauniar, Rawski, Ben and Johnson (2014:20), the factors influencing customer engagement with Facebook are perceived ease of use, perceived usefulness, capability, perceived playfulness, critical mass, trustworthiness, intention to use and actual use of the particular Facebook page.

Customer engagement, through social media, should not only be restricted to private business. According to Reuben (2008:2); Peruta, Ryan and Engelsman (2013:2), in a competitive Higher Education landscape, universities also need to market themselves to their potential customers utilising social media platforms. To be effective the media platforms must be attractive to the targeted group. Eduventures (2014), suggested that current students, as influencers to prospective students, should not be forgotten, as customer engagement at this level can increase loyalty to the brand. It can also create a positive environment that will make a student feel proud to be associated with the particular university. From the university's side, social media platforms can enhance the image of the university when the communication is open, transparent and relevant (Petruzzellis, D'Uggento & Romanazzi, 2006:354).

The University of Johannesburg (UJ) has a UJ Facebook page. This page serves the university with purposes such as customer engagement, entertainment as well as to provide information to the students. This means that the factors that influence when

and how customer/students engage with a Facebook page should be investigated. The main objective of the study is to determine the factors that influence student engagement with the UJ Facebook page. These factors will provide a basis to measure the effectiveness of student engagement with UJ's Facebook page.

In the sections that follow, an understanding of the factors that influence student engagement with UJ's Facebook page will be gained. The literature review will briefly explore the following sections: university environment, social media marketing, Facebook as a preferred social media platform and customer engagement. These sections will be followed by the problem statement, objectives and hypothesis of the study, research methodology, and at the end a data analysis will be introduced.

1.2 Background

According to Blom (2013), for a higher education institution (HEI) to be globally competitive it needs to attract the best students to produce employable citizens. The problem that HEIs face is that students can choose from a number and variety of HEIs to further their education. This stock choice enhances competition for HEIs not only globally but in South Africa too (Froneman, 2002:36).

The South African higher education sector comprises of 26 public higher education institutions (HEI), 119 private HEI's, 50 public further education and training (FET) colleges, 291 private colleges, 1828 public adult education and training (AET) centres and 55 private AET centres. Approximately, 51% of the enrolled students are in post-school education and training sector (PSET) (Higher education and training, 2014:5). The total number of students who were enrolled in South Africa's HEI public and private sector in 2014 were 1 111 712, growing from 983 703 students in 2010 (Higher education and training, 2014:5). In the face of the increasing global competition for students, a key challenge for universities is to determine how to attract and retain students using marketing methods. In particular, universities need to find ways in which they can attract high quality students, distinguish themselves from competitors, create loyalty among current students and produce a service experience that will increase a positive word of mouth about the institution (Hardy, 2010; Wartham, 2016).

As companies become more customer centric, it is wise for universities to do the same and become more engaged with their customers. Student engagement measurements in universities can provide insights into students' intrinsic involvement with their

education, and provide ways on how the university can better serve the students (Guestfolio, 2016).

Universities need to find ways in which they can engage with their students because customer engagement encompasses sub-aspects of behaviour such as involvement, satisfaction, loyalty, word of mouth advertising, complaint behaviour, market intelligence and filtering (Servicio al cliente, 2011:15). Sobaih, Moustafa, Ghandfouroush and Khan (2016:297), believe that Facebook is one such social media tool that universities are using to communicate and engage with their students. Facebook can further provide prospective students with virtual tours so that students will have a clear view of what the institution is offering before they even visit the university. Information is also easily accessible to the target market (Kessler, 2011).

Students are the customers in the university institution, if they are having a good experience with the university, they will be able to spread positive word of mouth to potential students. Customer engagement can improve the student experience at a university. Therefore universities need to make sure they use tools that will be effective in increasing customer engagement. Facebook is one of the tools that is being used in universities, therefore, there are a number of factors that can be used to measure the effectiveness of the university Facebook page such as perceived ease of use, perceived usefulness, capability, perceived playfulness, critical mass, trustworthiness, intention to use and actual use (Davis 1986:24; Rauniar et al., 2014:6).

According to Rauniar et al. (2014), perceived ease of use is the degree to which a social media platform is free of effort when one engages with the site; perceived usefulness is the degree to which people trust that their performance will be enhanced using that particular system; capability is defined according to the applications, site features, and social media tools that the users will benefit from using that platform; perceived playfulness is the degree to which social media is perceived to be enjoyable; critical mass of social media refers to the membership numbers and type of members in a user's social network; (Cameron & Webster, 2005; Rauniar et al., 2014:11); trustworthiness is another factor that people consider when using a social media platform as they want the site to keep their information confidential; intention to use is "the continued intention to perform social media-related activities using the social media site" (Fishbein & Ajzen, 1975; Rauniar et al., 2014:14) and fun by the

participants and actual use is defined according to the number of times the Facebook page is used by the user. These factors are able to assist marketers in understanding the social media user attitudes towards a certain social media platform.

The research to be conducted will investigate factors that influence student engagement of the University of Johannesburg's Facebook page. A sample will be drawn which will be representative of UJ. UJ is still among the new universities, it is currently 10 years old with lot of many students from various backgrounds undertaking their studies here (Why joburg. 2013; Gauteng, 2016).

1.3 Literature Review

The literature review will discuss several concepts such as: the HEI environment, social media marketing, Facebook and customer engagement. These topics will come together in the investigation study. The factors influencing customer engagement will be shown.

1.3.1 HEI environment

According to Bryant (2013), the HEI environment is changing due to the fact that higher education has been reshaped by digital revolution and globalisation. Prospective students are now more consumer-oriented and not afraid to make education decisions accordingly (Bryant, 2013). One of the flexible ways in which students gain access to the services and education sector is through using technology, impacting universities to invest in technology. Furthermore, students' expectations and demands have increased, and students are seeking an educational experience, even when seeking information via technological platforms such as Facebook (Kay, Dunne & Hutchinson, 2010:2).

According to Van den Berk (2015:5), the three major challenges that universities are facing are empowered students, the growing global and digital competition and a lifelong student journey. Universities need to be where the students are, which is online, providing students with instant information with the click of a button. The global environment has created opportunities for students to study anywhere in the world, and universities are required to implement marketing strategies to meet the information and 'search' the needs of these prospective students to make it easy for students to make a decision.

Student engagement platforms are important because students can ask questions, compare and receive recommendations through using these platforms and the university will be able to gain a comprehensive overview of these students.

According to Strydom, Mentz and Kuh (2010:3), South Africans can use student engagement to improve the challenges higher education is facing such as:

i. Increasing the number of black students who will finish their education in record time.

ii. Increasing the black student participation rate.

iii. Broadening the access and increasing the demand for graduates in the knowledge economy leading to an exceptional level of diversity.

iv. Increasing the pass rate in graduate students.

According to Lubbe, Petzer and Jooste (2013:78) there are three levels on which universities offer their products:

i. The core - the knowledge students obtain during a course period aiming to achieve their desires in the future.

ii. The tangible attribute - comprising of the facilities that the students use such as the library, laboratories and student centres.

iii. The augmented level- which includes the library memberships, the finances and employment opportunities, among others.

The three levels that are offered by the HEIs show how important customer engagement should be in this environment because without engagement the products offered by a HEI will not be satisfactory. For the purpose of this study the HEI environment to be focused on is the universities and particularly the University of Johannesburg. Customer engagement in such an environment is very important as it may assist students to feel welcome to the university.

1.3.2 University of Johannesburg

The University of Johannesburg (UJ) was officially opened in 2005, this transpired when the two institutions: the Technikon of Witwatersrand (TWR) and Randse Afrikaanse Universiteit (RAU) combined into one university (University of

Johannesburg, 2015; Goldman & Tonder, 2006:149). UJ enrolls approximately 48 000 students and 3000 staff members on four of their campuses (Mekgwe, 2015). It is essential for a brand like UJ to regard students as a priority and to engage with the students because it operates in a very competitive environment. Sinha and Kumar (2012:7) believe that a way for universities to be more effective would be through using new communication technology tools such as social media. Social media interaction can assist UJ in increasing brand loyalty by forming a relationship with the students.

UJ has several media platforms which existing students and prospective students use to communicate with each other. Discussions on upcoming events and news updates are some of the topics that the students converse about on these social media platforms. The UJ Facebook page was initially launched in 2010, providing updates about the university (UJ Facebook, 2015). It has 241 000 likes (UJ Facebook, 2015), and it is suggested that UJ Instagram a Facebook presence to encourage the students to engage that should enhance loyalty (So, King, Sparks & Wang, 2016:74).

When a customer is loyal he or she tends to follow the brand via social media platforms, such as Facebook and take part in its conversations. Since students are the target market, and are seen as customers consuming knowledge, universities should provide good quality information so that students can gain knowledge about the aspects of the university they are interested in (Lubbe et al., 2013:71). Positive word of mouth is spread when customers are satisfied with a brand and this in turn increases the brand loyalty of the customers towards the brand (Hoffman & Fodor, 2010:46).

According to Melanthiou and Fantis (2014), social media networks such as Facebook enables word of mouth (WOM) among people and WOM is very effective as it encourages engagement. These authors advise universities to use this medium as a way to spread information within universities too, and encourage current students to post their experiences on the Facebook page for potential students to see. The universities will need to be committed to the Facebook page and monitor what is being said about the university, and they should also listen and learn and not only contribute and join the sites (Simon, 2008).

1.4 Social media marketing

Organisations are looking for ways to increase profits and understand that customers' needs and wants need to be understood to provide the correct products and services

at the right time to increase profits (Slater & Narver, 1998:1001). Many customers will only reveal their true needs and wants to people they trust and only when they are given the opportunity to engage with them. Social media marketing allows organisations to have a customer engagement channel with its customers, build brand equity and market their products (Saranakumar & Suganthalakshmi, 2012:4444, Jackson, 2011).

Social media marketing is a tool that is used in marketing in order to create awareness and allow customer engagement. For an organisation to gain strong customer engagement with their customers, the organisation will need to know their target audience and the social media sites that they use the most. Facebook is the most used medium between the age group 18-24yrs and this is the dominant age group in tertiary institutions (Bevan-Dye & Akpojivi, 2016:115).

Social media marketing is very challenging as customers have developed a negative attitude toward adverts and try to avoid them (McCoy, Everard, Polak, & Galletta, 2007:84). According to Marketingcharts staff (2013), only 15% of customers' trust social media marketing, the question is how can marketers overcome this challenge?

Ineffectiveness in social media is realised due to the fact that when users go on social media it is to engage with people, yet when marketers are on social media it is used for selling products and services (Zhu & Chen, 2015:335). This creates a problem for marketers as customers will simply ignore any social media marketing that will be advertised. Kietzmann, Hermkens, McCarthy and Silvestre (2011:249), believe that organisations need to develop strategies that are in congruity to what they want to achieve for example increased sales. Therefore it is important that organisations fully understand what it is they are trying to achieve, because this will allow marketers to be able to engage with their customers at a meaningful or personal level.

1.4.1 Social media platforms

According to Hendricks (2013), the first recognised social medium was produced in 1997, and the social media site was called Six Degree. The site allowed individuals to generate a profile about themselves and further make friends with other people. Social media platforms are aimed to unite people and build networks among brands, organisations, and other entities (O'Guinn et al., 2015:284). This connectivity can be utilised as a marketing tool as it is one of the most cost effective and easiest

opportunities to increase customer engagement, share brands information, new products and services (Khan& Khan, 2012:4).

According to Edosomwan, Prakasan, Kouame, Watson and Seymour (2011:8), social media platform advantages of engaging with the organisation are:

i. Brand building which consists of strengthening the brand experience of the customers.

ii. To promote openness in communication with the management and employees.

iii. To promote other communication features such as the videos and webcast.

iv. To increase collaboration with existing customers and potential customers.

The characteristics that support social media operations are involvement, connectedness, dialogue, honesty and community (Chan-Olmsted, Cho & Lee 2013:154). An organisation that uses social media platforms must make sure that the messages deliver the same meaning irrespective of which social media platform is used in order to not confuse consumers (Botts, 2014).

The investigation is in the HE landscape, specifically a university and is therefore argued to investigate how social media has affected universities as well as how it is being used by universities. There are many different types of social media platforms that are used to share information with the online audiences, successfully spreading and distributing information worldwide (Roy, 2014:247). In the university sphere several social media platforms such as Facebook, Twitter, MySpace, YouTube, Instagram, blogs and Del.ico.us are engaged (Reuben, 2008:3-5). In 2008 there were 420 universities that had already adopted Facebook as a communication tool with students (Reuben, 2008). Another social platform is MySpace which allows users to have enhanced control of users' profiles, backgrounds and setup. YouTube is an entertainment social media platform used to provide videos of things happening around the university (Reuben et al. 2008:4). Instagram is a social media platform that is used for sharing photos with students, faculties, alumni and staff members and people can express their opinions on each other's photos (Beese, 2014). Blogs are journals and can be used by students to write or post videos about life on campus. Blogs provide in depth information that can paint a clear understanding of university life and marketers can use it to recruit prospective students (Reuben, 2008:4). A social

media platform that has been struggling as an engagement tool between students and the university is Twitter (Mollet, Moran & Dunleavy, 2011:6).

According to Tucker (2014), students admitted that universities' social media platforms are a beneficial tool when gathering and sharing ideas, they further agreed that it can also be used for engaging and getting inspiration. Five major reasons that social media platforms can be used for in universities are: research applications and funding, getting ideas and inspiration, comparing universities, research locations and for research courses. Universities use social media to communicate with students and to obtain effective immediate answers from them. Facebook in particular has been one of the main social media tools to be used by universities (Barcyk & Duncan, 2013:1) and will be discussed in length as it will assist in identifying customer engagement in this context.

1.4.2 Facebook

Facebook is one of the more popular social media networks that are used by people all over the world. As Facebook dominates as social medium in the South African market (Alfreds, 2015), investigating Facebook to acquire a greater understanding of why people use this medium is warranted.

Facebook founder and CEO, Mark Zuckerberg CEO, launched Facebook in 2004 (Jankovic, Nikolic, Vukonjanski &Terek, 2015:354). According to Ellison, Steinfield and Lampe (2007:1144), there were 21 million registered members by 2007 and currently it's at 1.65 billion active users (Statista, 2016). It is a very popular platform because it provides people with the opportunity to connect and thus meeting with people globally and locally. It provides users with the ability to leave and accept comments, to share photos, videos, send invitations, and establish an opinion poll (Bateman &Willems, 2015:56). Bateman and Willems (2015:56) trust that Facebook has currently over 500 million active users and each user has about 130 friends and on average 30 billion content is shared each month.

According to Facebook (2016), it permits marketers to connect with people all day long through computers, mobile and tablet devices. The objectives of Facebook are to foster product development, build loyalty and deepen relationships, generate awareness, amplify recommendation and WOM, drive preferences and differentiation and lastly gain insights (Facebook, 2016).

Facebook is inherent in undergraduate students' everyday lives (Murdock, 2006). It is used for social purposes, acts as support to peer-to-peer groups and sometimes assists with informal learning. Research has found that Facebook is not a separate activity but is integrated into students' life experiences (Selwyn, 2009:15). Facebook can support students studying as well as prospective students who are searching and gathering information on possible alternatives to further their studies. Current students as well as prospective students will interact with Facebook, as the WOM produced through Facebook is considered credible (Nunes & Lucian, 2014:19).

Many organisations have a Facebook page which is applied to advertising their products and creating awareness of their products (Peruta et al., 2013:22). Facebook provides a way in which customers can complement and complain about brands and products to the people, and because there are a lot of people on Facebook, WOM spreads very fast when news or messages are posted on the social media website (Bunker, Rajendran & Corbin, 2013:23). It is the marketers' and organisations' responsibility to make sure that the messages that are posted on the social media do not harm the organisation (Peruta et al., 2013:11).

UJ uses Facebook for many reasons such as to inform students of current events, to create debates between students and, as a form of creating awareness. There are many projects that UJ is associated with such as the UJ solar energy car, and as a way to create awareness of such projects Facebook is used, there are also many sports events that are posted on the UJ Facebook. Recently the UJ Facebook page was utilised during the fees must fall campaign. Many students were being informed of whether to attend classes through Facebook, as it was not safe to just go to the university (UJ Facebook, 2015).

Oliveira, Huertas and Lin (2016:57), measured Facebook user engagement intention (adopted from Dholakia (2004), Cheung (2011) and Calder and Malthouse (2008)). The constructs consisted of entertainment value, group norm, user engagement intention, purposive value, self-discovery, social enhancement, social identity, subjective norm and social presence. This construct will be adapted to this study in order to gather data regarding the Facebook student engagement at the UJ.

1.5 Customer engagement

Customer engagement has been studied in numerous contexts such as consumer behaviour, consumer experience, social networks, loyalty programmes, development of brand, consumer behaviour and service marketing to name but a few (Kuvykaite & Tarute, 2015:655). Engagement is comprehended as socially and interactively formed; therefore it is developed over a period of time. “Customer engagement is defined as a psychological state in which there is an interaction and co-creation experience with a focal representative or object in a focal service relationship.” (Mittal, 2014:8). Van Doorn, Lemon and Mittal (2010:254) defined customer engagement behaviour as “customers’ behavioural manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers”. The motivational driver can be either positive or negative. The positive motivational drivers are manifested from positive postings people publish about the brand and the negative motivational drivers are seen though the public actions against the brand (Van Doorn et al., 2010:254).

According to Sashi (2012:267) customer engagement focuses on creating superior value compared to competitors by building trust and commitment with customers by responding to their needs. Sashi (2012:260) further argues that customer engagement is cyclical and can assist organisations in providing superior value to their customers. The customer engagement cycle steps are: association, interaction, contentment, retention, commitment, advocacy and engagement. Absorption, vigor, dedication and interaction are the most common tools used in customer engagement (Patterson, Yu & De Rutyer, 2006:2).

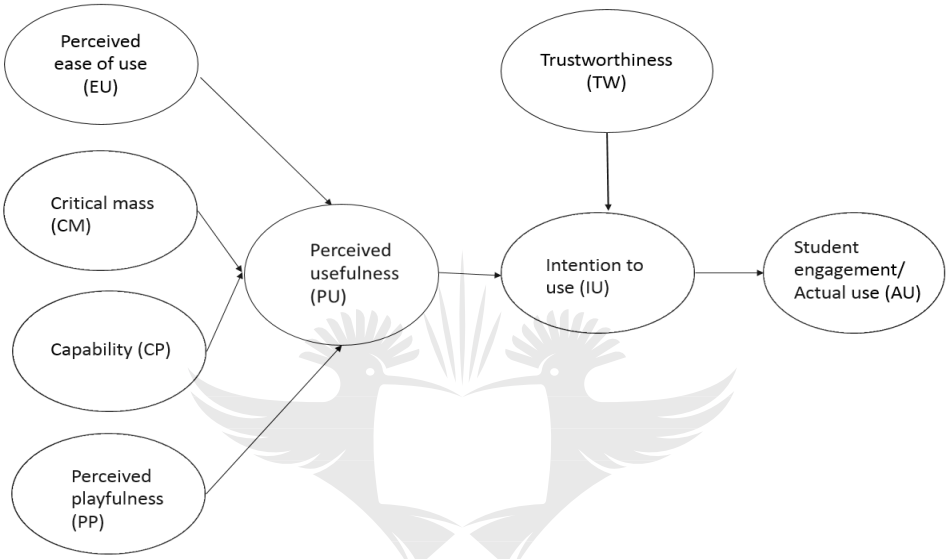
Consumer engagement with Facebook can be measured through the amount of ‘likes’ and comments that people post on the Facebook page (Oviedo-Garcia, Munoz-Exposito, Castellanos-Verdugo & Sancho-Meiias, 2014:332). The more the ‘likes’ and the more the comments, therefore the more marketers are able to measure the participation level of the customer with the Facebook page. Therefore if the UJ page is able to achieve ‘likes’, content that is shared, and comments on several topics that will be discussed they will be able to measure consumer engagement and find ways in which they can improve customer engagement.

Universities need to evaluate their Facebook pages in order to understand how they can use the university’s Facebook account to improve student engagement.

Determining the factors influencing student engagement will result in more students participating on the university Facebook page, sharing information and creating a platform on which the student can easily engage with the university. Figure 1.1, presents the factors according to Rauniar et al. (2014:20) that influence student engagement with a Facebook page.

1.5.1 Factors influencing customer engagement

Figure 1.1: Factors influencing student engagement



Source: Adopted from Rauniar et al. (2014:16).

Figure 1.1 presents the factors that will be used to measure student engagement with the UJ Facebook page. According to Rauniar et al. (2014:20), the factors that the researcher can use to determine how effective the UJ Facebook page is, are depicted in the Table below.

Table 1.1: Factors influencing customer engagement with a Facebook page

Factor	Description
Perceived ease of use	When customers describe the Facebook page as not complicated and effortless to use.
Perceived usefulness	Describes the degree in which UJ Facebook page will assist the customer.
Capability	Describes the degree in which customers find the instructions to operate the UJ Facebook page.
Perceived playfulness	Describes the extent at which customer finds the UJ Facebook page enjoyable.
Actual use	Describes how frequently the UJ Facebook page is being used.
Critical mass	Is the extent of the membership of people that matters most in using the UJ Facebook page
Intention to use	Is the cognitive and voluntary representation of the user's readiness to actually use the UJ Facebook page.
Trustworthiness	This is when students trust the UJ Facebook page when posting on the social media platform and for the platform to keep confidential information and not abuse it.

Source: Adopted from Rauniar et al. (2014).

Perceived ease of use is the extent in which technology can be used free of effort and perceived ease of usefulness is how much technology can be used to improve one's performance (Venkatesh, Morris & Davis, 2003:428). The user of the technology will be able to obtain accurate information and save time using the technology (Todd and Benbasat, 1992). The technology acceptance model has been used for several research studies such as the "satisfaction with the Web channel" (Devaraj, Fan, Kohli 2002), "trust in e-commerce" (Lee and Turban, 2001) and "intention to transact" (Gefen and Straub, 2003), this study will be to influence student engagement with the Facebook page.

According to Rauniar et al. (2014:12), Facebook capabilities include: editing postings, walls, comments, messages, customizable modules, groups and community page development tools, event creation and chats. Another capability of Facebook is that they are able to support more than 70 languages that enable translation on their social media network (Facebook for developers, 2016).

Perceived playfulness is seen in individuals who indulge in using that technology, and not just use the technology for its use. These individuals do not find difficulty in using

the technology but find pleasure in it. There is generally a positive relationship between the perceived playfulness and perceived ease of use (Venkatesh, 2000:348). Perceived playfulness can be seen when individuals explore or discover more about the technology, for the study to be conducted it will be exploring and discovering more regarding the Facebook page, as this may lead to a desire to spend more time on the university Facebook page. Actual use depends on how often the social media is used, in this study this will be how many times the university Facebook page is used by the students, and how many hours are spent on the Facebook page.

Critical mass is defined as "the degree to which a person believes that most of his or her peers are using the system" (Lou,H; Luo,W & Strong, 2000:95). It is furthermore the extent to which people can encourage one another to join the social media networks such as Facebook (Cameron & Webster, 2005:90).

Intention to use is also an important factor to investigate as it provides access to the reasons why users would want to use the Facebook page. Intention to use is perceived to be more radical than actual use because actual use is more retrospective and static (Yi, Jackson, Park & Probst, 2006). This means that when asking people about their actual technology usage they may respond in a socially desirable manner, a manner they believe the researcher would want them to respond compared to the truth that is shown by intention to use (Teo, 2011:7). Intention to use provides actual intent (date and time) of when they will use the Facebook page again.

Intention to use is furthermore perceived as influencing the trustworthiness of the social media platform (Rauniar et al., 2014:14). Trustworthiness is displayed when the social media users simply upload their profiles on the social media sites and people feel free to share text and graphics on their profiles for others to view (Gross & Acquisti, 2005). Social media sites that are able to secure users' profile advance quicker compared to those that don't. Advancement of technology is appreciated but the security in these technology applications is also very important as it determines the success of the applications (Rauniar et al., 2014:15).

1.6 Problem statement

Customer engagement involves the co-creation of value and experiences by both customers and service providers (Kuvykaite & Tarute, 2015:655). This is certainly also the case in the HEI environment where university students are known to engage

heavily with various social media platforms such as Facebook. In a highly competitive higher education environment where universities compete for high quality students it's important that universities foster customer (student) engagement as the outcomes of student engagement involve loyalty, favourable behaviour intentions and positive outcomes with respect to the service experienced by university students. It is therefore important for a university to determine the factors that influence student engagement with social media platforms such as Facebook since more engaged students could potentially result in positive and desired outcomes for the university concerned.

Primary objective:

- To determine the factors that influence student engagement with the UJ Facebook page.

Secondary objectives:

- To provide a demographic profile of UJ students taking part in the study.
- To determine the Facebook patronage habits of UJ students taking part in the study.
- To empirically measure the factors that influence student engagement with the UJ Facebook page.
- To measure the extent to which UJ students engage with the UJ Facebook page.
- To determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page.

Hypotheses:

H_1: Perceived ease of use (EU) of the Facebook site is positively related to Perceived usefulness (PU).

H_2: Critical Mass (CM) of the Facebook user is positively related to Perceived usefulness (PU).

H_3: Capability (CP) of the Facebook site is positively related to the Perceived usefulness (PU).

H_4: Perceived playfulness (PP) of the Facebook site for its user is positively related to the Perceived usefulness (PU).

H_5: Perceived usefulness (PU) of the Facebook site is positively related the Intention to use (IU) the Facebook site.

H_6: Intention to use (IU) the Facebook site is positively related to the Actual use (AU) of the Facebook site.

H_7: Trustworthiness (TW) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

1.7 Methodology

According to Saunders et al. (2007:602), a methodology is an idea of how the research should be carried out, the theoretical assumptions and the implications of the methods being adopted. Methodology studies are used to develop new methods of collecting data and to validate recent developed instrument through a trial of studies (Mouton, 2001:173).

The research methodology section consists of the following topics: research design, research methods, population, sample frame, sample size, sampling techniques, sampling units, measuring instruments, distribution of surveys and ethical implications, that will be discussed in following section.

1.7.1 Research design

The research design reveals the overall idea of how the research will occur, and it allows the researcher to answer the marketing research question (Saunders et al. 2007:130). Malhotra (2010:10) and Kothari (2011:31) define the research design as an outline used to gather data for primary and secondary research to provide a solution to the objective of the research study. Hair, Celsi, Oritinau and Bush (2013:36) as well as Kent (2007:11) recognise that there are three comprehensive categories for the research design which are: descriptive, casual and exploratory research. Exploratory research studies are used in attaining an overall understanding of the problem at hand or earning a profound understanding of the customer motives, attitudes and behaviour (Hair et al., 2013:36). Causal research examines the degree of effect over one or more dependent variables upon one or more independent variables (Kent, 2007:18). When the profile of the sample is precise and the situation and events are exact, descriptive

research is used (Robson, 2002:59). The research study will provide factors that influence student engagement with the Facebook page at UJ; as a result a descriptive research study will be used. Descriptive research will be able to determine the degree in which the Facebook page will be deemed effective to the students and university, and as a customer engagement tool that can be useful to this environment. By administering descriptive research, information will be collected from UJ students to understand their engagement with the Facebook page.

Primary and secondary methods are used to collect data and depending on the research study either primary or secondary collection methods can be used or both can be administered (Dillion, Madden & Firtle, 1993:62). Primary research will be used to acquire information straight from UJ's third year undergraduate students. The reason why primary research will be utilised is this is the first time that this study has been conducted at the university; for this reason it is judicious to collect primary data, in order to receive a better understanding of the research study.

Data can be collected either through qualitative research data collection or quantitative research data collection or both qualitative and quantitative research data collection (Dillion, Madden & Firtle, 1993:134). Qualitative research data is gathered through using people's feelings and thoughts that are not simply projected in the entire population (Kent, 2007:570). Quantitative research data is collected through quantifying the data and taking a broad spectrum view of the population using a sample study (Malhotra, 2010:171). Quantitative data will present a statistical analysis of how students feel about the UJ Facebook page. The large number of respondents that will take part in the research study will be able to represent the population as a whole. Data will be collected using a questionnaire survey. Quantitative data is known to produce unbiased answers which will benefit the study.

1.7.2 Research methods

In this study, the sampling technique to be employed is the quota non-probability sampling. Non-probability sampling is administered when the probability of each case being nominated is not known (Saunders et al., 2007:207). Quota sampling is a combination of the judgment and convenience sampling technique (Berndt & Petzer, 2011:174). A judgmental sampling technique means the researcher will have decided and judged who should be selected as respondents drawing from experiences, and

knowledge (Malhotra, 2010:379). A convenience sampling technique is based on the convenient element, it is left primarily to the researcher to make the selection, and since the researcher will be at a set location it will be appropriate to use it (Malhotra, 2010:377). Quota sampling allows the research investigator to use students who are easily reachable in a controlled environment. Quota sampling is the least costly technique used to collect data in a short space of time compared to the other research techniques (Malhotra, 2010:377). The Faculty of Management's third year students is the unit of analysis, as third year students are more likely to have seen the UJ Facebook page, and will have more experience with the UJ Facebook page than for example a first year student. A sample of 400 respondents is to be drawn (50 students from each department (eight) in the faculty of management).

1.7.3 Population

Population is defined as the full set of cases in which the sample is going to be taken from (Saunders et al., 2007:205). The third year students in the Faculty of Management at UJ are the target population. Most of the third year undergraduate students have been at university for more than three years with the result that they are more familiar with the university's social media presence as part of their everyday living (Selwyn, 2011:2). According to Bauman (2010:7), these students were born in the world woven from cable and have wireless connectivity. Universities should understand their target population so that they will be able to fulfil their needs as students are their primary customers (Maringe, 2004:66; Lubbe et al., 2013:75).

1.7.4 Determining the sampling frame

A sample is a subgroup number of population nominated to participate in a certain study. (Malhotra, 2010:371). A sample frame is a group of people taken from a comprehensive list of the population (Saunders et al. 2007:208). The Faculty of Management at UJ will be the sampling frame in this study. The sampling frame should be third year undergraduate students representing the eight departments (see appendix 2) in the Faculty of Management who have a Facebook account.

Table 1.2: The sampling plan

Target population	•3rd year undergraduate students in the Faculty of Management who have a Facebook account.
Sampling Frame	•A list of the number of students in each of the eight departments) in the Faculty of Management at UJ
Sampling units	•Students in the eight departments (see appendix 2) in the Faculty of Management at UJ
Sampling elements	•Students in the Faculty of Management who have UJ Facebook presence
Sampling technique	•Non-probability technique, quota sampling (judgement and convenience sampling).
Time	•Year 2017
Area	•Auckland Park Kingsway (APK), Auckland Park Bunting Road (APB)
Sampling size	•400 students who have liked the UJ Facebook page.

1.7.5 Determining the sample size

The unit of analysis will be the departments at UJ and the elements will be third year students at UJ in particular department Faculty of Management. A sample estimate of 400 students in the Faculty of Management who have liked UJ's Facebook page will take part in the research study.

Auckland Park Kingsway and Bunting Road campuses will be the target sample of the study. Questionnaires will be distributed in these students' respective modular venues before or after they commence with their lecture.

1.7.6 Sample technique to be used

Non-probability sampling is conducted by relying on the personal judgement of the researcher instead of letting chance be the predictor of the sample elements (Malhotra, 2015:275). It is thus up to the researcher to consciously decide what elements to include in the sample. A non-probability sampling technique will be used in this study because the students (elements) in the eight departments (units) are identifiable.

1.7.7 Sample units

The sampling units will be the eight departments (see appendix 2) in the Faculty of Management and the elements are the students in these Departments who are in the Faculty of Management who are associated with the university Facebook page. Facebook is the social media platform to be investigated. Facebook is the most common platform that is used in universities where students and Faculty interact, let their voices be heard and share resources (Selwyn, 2011:3).

1.7.8 Measuring instruments

Measuring instruments determine how the research is authenticated. The questionnaires to be administered will include pre-selected response categories that respondents needed to select. The type of scale selection or scaling method used in this research study is the Likert scale. Gebhart and Schmidt (2013:1715) and Hair et al. (2011:221) state that a "Likert scale presents a set of attitude statements and asks respondents to express agreement or disagreement on a numerical scale". The items on the Likert scale will vary from 'strongly disagree' to 'strongly agree'. For that reason the respondents will be asked to cross (X) the level of agreement and disagreement based on their knowledge. Two sections will be in the questionnaire which will be the demographics, which include age, sex, education etc. and the factors influencing student engagement with the UJ Facebook page.

The questionnaire will be designed as follows:

i. Preamble: The introduction of the study will be covered in this section as well as the screening questions. The screening questions will ensure that the right respondents will be able to take part in the study. This will be third year undergraduate students in the Faculty of Management at UJ. In addition the screening questions will also ensure that only the UJ students with a Facebook account participate.

ii. Section A: This section will obtain information about the respondent's demographics (age, gender and department). The data obtained from this section will be able to assist the researcher to understand the demographics of the students who have a Facebook account.

iii. Section B: This section will obtain information on the factors influencing student engagement with the UJ Facebook page using the Likert-scale. This section

will discover more insights regarding these factors: perceived ease of use, perceived usefulness, capability, perceived playfulness, critical mass, trustworthiness, intention to use and actual use. This section will provide information on where the university can improve their Facebook page.

1.7.9 Distribution of survey

The survey will be distributed by the researcher, by physically going to the different departments to obtain an undergraduate lecture schedule. Agreement needs to be obtained from the various department heads and lecturers involved. Students will need to spare a few minutes to complete the questionnaire. Therefore a couple of weeks need to be set aside to cover all two campuses and to ensure distribution of paper based questionnaires will not interfere with semester tests. The questionnaire will be distributed in the students' class venues as this is the most convenient way to collect the data in a short space of time. Screening questions will be administered to allow the right students to complete the questionnaires.

1.7.10 Ethical implications

The respondents' confidentiality will be kept, this means that respondents are not allowed to write their names and or any other undignified identity profiling information. Respondents will be provided with the understanding of the research study before taking part in the study. Respondents are allowed to stop answering the questionnaire if they feel uncomfortable during answering the questionnaire.

1.8 Data analysis

According to Hair et al. (2013:242), data will be edited, coded and validated as a preparation for data to undergo analysis. Afterwards, the data will be put onto the data entry, and finally the data tabulation. Data cleaning will be done after tabulating the data then it will go through normal distribution. Lastly the data will be used to determine the frequency of distribution using kurtosis and skewness of the items on the questionnaire (Malhotra, 2010:461).

Exploratory factor analysis will be used to classify underlying dimensions that describe correlations between the set of variables (Malhotra, 2010:739). The correlation matrix will be the starting point of the factor analysis. The matrix can be deduced by detecting variables that correlate highly with a collection of other variables (Field, 2000:424).

According to Statistical Solutions (2016), there are two methods that can be used to perform exploratory analysis which are: R-type factor analysis, that is factors calculated from the correlation matrix and Q-type factor analysis, which are factors calculated from the individual respondent. Exploratory factors analysis will be able to discriminate the validity of the questionnaire. Exploratory factor analysis using maximum likelihood will be used to extract the factors.

Using the social sciences (SPSS) 24 format data will be analysed (Malhotra, 2010:59). The SPSS will provide speedy results and improve the efficiency of finding the appropriate information that the researcher can use for the study. Another statistical analysis that will be used is structural equation modelling (SEM).

SEM is defined as “a class of statistical techniques that allows us to test hypotheses about relationships among variables” (Sharma, 2015:6). SEM is a group of statistical models that aim to describe the associations among multiple variables. It is similar to multiple regression in that it scrutinizes the structure of interrelationships expressed in a series of equations. There are two types of models in SEM which are the measurement model and structural model (Statistical solutions, 2017; Jeon, 2015:1639). A measurement model is represented by the relationship between construct and measurable variable, relationship between constructs and multiple variables and correlation relationships between the constructs. The structural model represents how constructs are related to other constructs. SEM encompasses other statistical methods such as linear regression and factor analysis and path analysis (Bechger & Hox, 1999:1). The following section will be discussing how data can be deemed valid and reliable for the study,

Validity and reliability

Validity provides validation of the research study. History, testing, maturation, selection bias, mortality and instrumentation are internal validity threats that can affect validity (Malhotra, 2006:217). External validity threats that can impact the research study are: surrogate situations, reactive or interactive effects of testing and interactive effects of selection bias (Dillion, Madden & Firtle, 1987:187). Reliability measures the degree in which random error and yield results are consistent (Dillion, Madden & Firtle, 1993:321).

Promax rotation (it's an oblique method that permits factors to correlate with each other) will be used provided that the existing scales are used to assess convergent and discriminant validity and internal consistency reliability (Wang, Ma, Rong & Koenig, 2016:87).

1.9 Chapter outline

Chapter 1: Introduction to the research problem

The introduction and background provides an understanding of the research study to be conducted. It provides the reason why this study is worth studying.

Chapter 2: Literature review: Higher education social media and customer engagement.

The literature review provides the background of the concept of the study and presents findings done by other researchers in the same field. Chapter two describes: the higher education environment, social media marketing, customer engagement and factors influencing customer engagement. This heading provides an in-depth understanding on the use of Facebook as a tool for engagement.

Chapter 3: Methodology

This section will provide the research design that will be employed in this research. This includes the sample size, methodology, validity of data analysis, statistical methods and the acceptable research practice that will support this research to be authentic.

Chapter 4: Data analysis

This research results will provide factors that influence student engagement with the Facebook page at the University of Johannesburg. This will help universities understand if the UJ Facebook page can assist with student engagement.

Chapter 5: Conclusion and recommendations

This chapter will deliver the main findings of the study (research objectives), limitations and recommendations that could be taken into consideration by universities regarding factors influencing customer engagement with a university's Facebook page.

1.10 Conclusion

The chapter's purpose is to provide an introduction of the research study. It provides the background of customer engagement and Facebook in South Africa. It also discusses the customer engagement factors that researchers can use to measure engagement levels with their Facebook page. An explanation as to why the study is to be conducted was identified which is for the university to foster a relationship with students through Facebook engagement. The research problem, hypothesis and research methodology were further elaborated. The next chapter will be providing an in-depth understanding of factors that influence student engagement with the Facebook page at a selected university.

CHAPTER TWO

LITERATURE REVIEW: HIGHER EDUCATION SOCIAL MEDIA AND CUSTOMER ENGAGEMENT

2.1 Introduction

Technology advancement is rapidly and continuously changing the way marketers communicate with their customers (Shugan, 2004:470). Social media as part of the technology advancement has platforms that connect people, share and produce content (Cvijikj & Michahelles, 2013:843). Organisational brands connect and engage with their customers as means to differentiate themselves from other brands (Thompson, 2014). As in other industries, the educational industry is not an exception to these trends.

Previously universities were using the traditional marketing tools such as one-to-many communication (talking to the masses) to create awareness about their universities. With the aid of technology advancement, Higher Education Institutions (HEIs) have adopted modern marketing methods such as social media platforms like Facebook, Twitter, Instagram and LinkedIn (Hanna, Rohn & Crittenden, 2011:268). This has also opened doors for HEIs to have direct engagement with their students, which in this instance are their customers (Woodall, Hiller & Resnick, 2014). The result is the institution will secure loyal students, while students will enjoy better experiences at the institution due to transparent and efficient communication. Students will thus be able to spread positive word of mouth regarding the university (Li, Granizo & Gardo, 2016:874).

However, in order for students to become loyal, and have better experiences the social media platform that will be utilised needs to be efficient and effective as an engagement tool (Lampe & Hou, 2016). The study will be focusing on the student engagement factors that can influence a successful engagement with the Facebook page.

The chapter will be structured as follows: Section 2 provides an overview of the related work. Section 3 introduces the concept of social media. Section 4 introduces customer engagement. Section 5 discusses factors influencing customer engagement. Section 6 will conclude the chapter.

2.2 The Higher Education Institution environment

The HE sector has changed a lot over the past century, progressing from catering to a small target market which consisted of the wealthy people who could afford to go to University, to providing service to the mass market to anyone willing to take a student loan or apply for a scholarship/bursary for their tuition fee (Orindaru, 2015:683). The increase in the number of students has been matched by an increase in the number of tertiary institutions, creating competition and growth in the Higher Education Industry (HEI) (SAnews.gov.za, 2016a). SAnews.gov.za (2016b), established that HE statistics in South Africa have grown from 700 000 in 2006 to almost a million students in 2015, an increase of approximately 32.5% over seven years. HEIs such as universities are searching for means to become more competitive in this industry, in order to attract high-quality students (Leland & Moore, 2007:10). High quality students help promote the university's name and the students have a better chance of finishing their degree in time (Hyman & Jacobs, 2009). Harper and Quaye (2009) believe that student engagement is vital to attract and enrol high quality students. Student engagement is a measure of institutional quality (Harper & Quaye, 2009), and it is suggested that the more students are engaged with the university, the better the institution is perceived.

Moreover, marketers believe that customer engagement is a technique that may leverage a competitive advantage, as it encourages positive experiences with customers resulting in loyal customers (Chan, 2014; French, LaBerge & Magill, 2012). A popular marketing tool that is used for engagement purposes in universities is social media. It is a tool in which customers/students engage with one another and share information (Baruah, 2012:8). Universities can use social media platforms to engage with students for a positive service outcome about the university.

This study will be administered at the University of Johannesburg; as a result it is important to have a comprehensive overview of the university in general.

2.2.2 The University of Johannesburg

The University of Johannesburg (UJ) is a diverse university with 49 500 students across four campuses (University Johannesburg, 2016). The UJ students represent a demographic that welcomes technology advancement and they are technologically savvy, evident by the requirement to write on-line tests and to submit assignments

online. Furthermore, administering the study at this university will provide insights into the factors that may influence student engagement. UJ has several social media platforms that are utilised such as Facebook, Twitter, Instagram, LinkedIn and YouTube. Facebook is one of the social media platforms in which the university share information with the students.

The university Facebook page has 307 137 likes (@University.of.Johannesburg, 2016), which portrays a large number of people are following the university page. As a result, if the university's Facebook page is managed properly considering factors that influence student engagement, there could be more efficiency in how the page is viewed and benefits to the university. It is therefore significant to gain a better understanding of social media marketing and its properties for the study.

2.3 Social media marketing

According to Nadaraja and Yazdanifard (2013:2), social media marketing can be simply defined as "the use of social media channels to promote an organisation and its products". Social media marketing assists an organisation with their goals: such as developing and integrating marketing principles; it also aims to incorporate the best practices, research, audience, and theory in order to provide sustainable, equitable, efficient and effective programs (French, 2013; Morgan, 2016). The University of Johannesburg aims to achieve these six strategic goals: global excellence in teaching and learning; global excellence in research and innovation; an outstanding student experience and active global reputation management; an international profile fit for global excellence and stature; an institution and people fit for global excellence and stature (University of Johannesburg, 2016). Part of the university providing the student with an outstanding experience is providing them with a suitable Facebook page that is satisfying the students' needs.

According to Nadaraja and Yazdanifard (2013:5), social media marketing also have complications and challenges. Social media marketing allows information to be transparent and available to the audience (Cohn & Wolfe corporate affairs, 2012:8). Trust is built among audiences when an organisation is transparent with its people and therefore creating lasting relationships (Smiciklas, 2013). The implications for transparency and openness is that everyone in the organisation needs to be listening to what is being said on the social media platforms, at all levels (Baumgarten, Duncan,

Jamison, 2012:5). This reinforces marketers to be consistent in their planning, designing, implementing and controlling of the online information as it affects the engagement level of students with the university.

Therefore, adopting social media marketing in universities is important because it provides a platform for the university and students to share information and address concerns that may affect the institution as a whole. Some impacts of social media marketing include: 1) growth of social signals- the organisation's search engine optimisation will be boosted as more people like, follow and recommend your page, 2) promoting organisation branding and consciousness- this takes place when people share your organisation's page on their walls, 3) the strength of word of mouth advertising when familiar people share their experiences with the brand on social media people tend to believe it to be authentic (Popali, 2016).

2.3.1 Social media platforms

Almost every brand has a social media presence as it is a place where most people go to when searching for information and it is easier and cheaper to setup social media pages than advertise on other platforms (Goodfellow, 2014). Also, it is easier for organisations to create a social media page than an organisation (Nadaraja & Yazdanifard, 2013:4). The most used social media platforms are Facebook, followed by YouTube, Twitter and LinkedIn (eBizMBA, 2016). Twitter, YouTube, and LinkedIn will be discussed briefly below and Facebook will be discussed in more detail as it is the main focus of the study.

According to Snyman (2016), a research done by World Wide Worx and Fuseware indicate that Facebook has the highest users in South Africa amounting to 13 million users, followed by YouTube with 8.28 million, Twitter with 7,4 million; and lastly Instagram with 2.86 million users. Facebook is the most popular social media platform at UJ with an estimated 317 124 likes on the page (@go2uj, 2017). Secondly, LinkedIn is the third most popular social media platform, and UJ has 127 391 followers (University of Johannesburg, 2017). LinkedIn is a social media platform that provides access to jobs, news, connecting to alumni and share information (Utz, 2015:2). Twitter is the third most popular social media platform at UJ, with 15 300 thousand followers (@go2uj, 2017). UJ Twitter has been active since 2010, and it acts as a platform on which students receive update information on the current news and it

allows for the exchange of conversations (@go2uj, 2016). Lastly, YouTube as a social media platform has 1 786 subscribers on its UJ channel (The University of Johannesburg, 2017), which contributes to informing students and everyone interested with visuals of the daily activities and events that happened or will happen at the university. This study is focusing on Facebook, therefore in depth discussion will be provided below.

2.3.2 Facebook

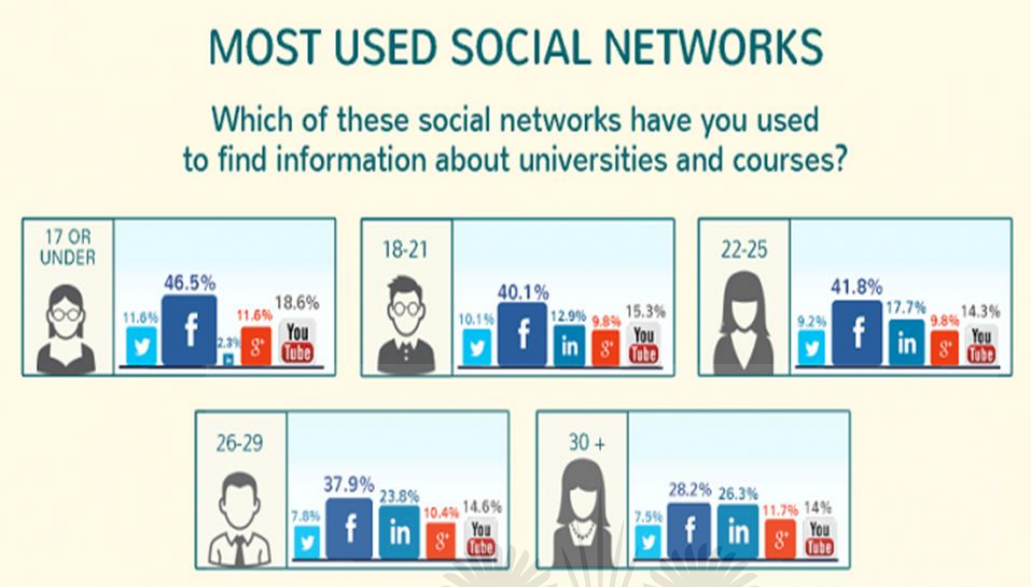
Facebook is the most famous social media platform that people around the world use and marketers are also using Facebook to create awareness of their products and services (Dogtiev, 2016). There are several advantages of using Facebook such as networking, doing business and information sharing. When networking users use Facebook to connect with their friends, family and work colleagues, and also meet new people (Evans, 2017). Facebook can also be utilised to conduct business as people can easily identify their target markets using Facebook, and can sell and promote their products and services, increase exposure to potential customers, gather more leads, lower marketing expenses, increase brand loyalty, increase web traffic and spy on their competition (Ayres, 2017). Furthermore, sharing news and information is a great advantage of Facebook since the 'real-time' social network, makes it easier for people to receive the latest news and information.

There are also disadvantages of Facebook such as: Facebook privacy, fake Facebook profiles and it can be a very time-consuming activity (Webster, 2017). Nonetheless, in terms of marketing and networking, Facebook is a powerful tool that if administered correctly can produce mazing results for the company. Since Facebook is popular with students all over the world. HEIs such as universities are also utilising Facebook to engage with their current, future and past students.

As illustrated in Figure 2.1, Facebook is a popular platform that the majority of students are involved with (Ljepava, Orr, Locke & Ross, 2013:1603). This platform may yield positive results if maintained and administered according to the students' needs and purposes. Previous studies show that tertiary education students have access to a smart phone and/or laptop not only to communicate with friends and family, but to employ during their studies too (Rosen, 2015). This is not different in South Africa,

where it is estimated that 11 million people have access to smartphones (Imagi-social, 2016).

Figure 2.1: Using social media marketing in higher education



Source: Adopted from: Tucker (2014).

Also, it is evident from the research conducted in 2014 that prospective students at that time, thus the 17 year and under age group, searched Facebook predominantly to find out information about universities and courses, followed by YouTube (Tucker, 2014). It is thus evident from the result that HEIs such as universities need to utilise Facebook to grasp the attention of prospective students with information they need. As the age increase, there is a slight drop in the use of Facebook for information and an increase in LinkedIn, however Facebook still remained the first choice social media platform for obtaining information about universities and courses.

It should also be noted that Facebook can be used for several other functions and usages such as gaming and advertising. These activities on Facebook increase the reasons as to why most people spend their time on Facebook and why it is such an effective tool to engage with students (Praveena & Thomas, 2014:24). Facebook was initially an attempt by the university to connect with students and to exchange information (Ross, Orr. E.S, Sisic, Arseneault, Simmering & Orr.R.R, 2009:579). However, the services offered by Facebook have broadened beyond connecting universities and students to include marketing and advertising.

Furthermore, Facebook is an important marketing tool for brands as it provides direct communication with the fans and customers on the organisation's Facebook page (Raghavendra, 2016:7). A Facebook brand community can be created when people click on the 'like' button on the Facebook page and this allows the user to automatically become a fan. Like (love, haha, wow, sad, angry), share and comment are the three interaction options that can be used on posts posted on Facebook pages. The number of interactions on the posts shows higher value of the marketing page. (Jayasingh & Venkatesh, 2015:20). It is not merely the number of interactions that portrays the value, but also the quality of content shared and commented on (Rayson, 2015; Bunskoek, 2013).

Therefore, Facebook can be a useful tool to university students if it is administered in such a way that the students feel the need to be associated with the university's Facebook page. When an organisation is associated with the Facebook page, it makes it easier for the followers to receive news updates, and for the fans to share the organisation's latest news on their page. The association creates an environment where members can network with one another, creating more value for the organisation (Association land, 2016). Facebook student engagement is significant in this study, therefore understanding whether the posts actually reaches the target market is important and where the posts appears on the newsfeed will provide an extent in which the engagement transpires.

According to Mooney (2013), EdgeRank is an algorithm that Facebook uses to determine all your post appearances on the newsfeed and how long it stays there. There are three main components that can assist in calculating customer engagement algorithm with the Facebook page which are:

- Affinity: which determines how connected you are with the brand, Facebook distributes relevant content centred on your ongoing relationship with your friends including any other relationship your friends may have with a certain page;
- Weight: Facebook values posts with videos or photos more than posts with plain links or texts. Facebook also values the level of interaction a particular post receives so that the more people engage with your post, the more you can increase overall reach (Ernoult, 2013);

- Decay: Social media is all about finding the latest and most relevant information and Facebook is no different (Copp, 2016). It is believed most of your post engagement happens just minutes after publishing (Mooney, 2013).

The best part of Facebook is that engagement measurement can be shown through the number of likes, shares and comments on the UJ Facebook page which portrays customer engagement. Customer engagement has become a unique marketing technique that builds relationships and trusts with the customers (Beard, 2013 & Delodovici, 2017). Building a relationship and trust between students and universities is important because if students fail to connect with the University for whatever reason, this can result in student drop-outs (Brinkworth, McCann, Matthews & Nordstrom, 2009).

2.4 Customer engagement

According to Mollen and Wilson (2010:919), engagement is defined "as an outcome of repeated interactions that strengthen the emotional, psychological, or physical investment a customer has in a brand". Customer engagement is also defined as "a sequential psychological process that customers move through to become loyal towards a brand" (Bowden, 2009). The definitions of engagement and customer engagement have a sense of students' association towards a brand. There are different types of ways in which students interact on the Facebook page.

According to Andre (2015:12), there are three degrees of engagement that Facebook users can ponder on which are: consuming, contributing and creating. Consumption activity refers to Facebook users who only read, watch or view the content that other people post, but they never create content or participate (Heinonen, 2011:358; Muntinga, Moorman & Smit, 2011:30). Contributors refer to the Facebook users who prefer commenting on other people's videos, pictures and any other brand related content (Muntinga, Moorman & Smit, 2011:30). And, lastly creators are the ones that are constantly producing and publishing their content online, they also comment or discuss or comment on other people's postings (Shao, 2009:13).

Universities can align their goals with social media platforms such as Facebook in order to fortify their relationships with their customers. One of UJ's six strategic goals aims to provide an outstanding student experience to the students (University of Johannesburg, 2016). It is believed that an outstanding student experience can be

achieved through engaging with the students, and Facebook is one of the most popular mediums among students, therefore it is wise to use this tool (Guild HE, 2016:68). By the university adopting to use the UJ Facebook page implies that they are trying to use all possible options in providing a better experience to students. Facebook can be used to inform or update students of upcoming events, creating a platform on which students can openly voice their opinions (UJ 2017 undergraduate prospectus, 2016:23).

Over and above that, when using digital customer engagement tools such as Facebook, there are several features that need to be accessed such as: the type of content published, the post format, and the time of publication, as these features assist the university in receiving the response it aims to achieve (Cvijikj and Michahelles, 2013:844). Cvijikj and Michahelles (2013:844); Sukhraj (2016), further discussed how the features assist in measuring the number of shares, likes, comments or interaction duration of a certain post in accessing the engagement level.

Furthermore, the content type used by the brand determines whether the information will be shared, liked or commented on (Ernoult, 2014). Relevant entertaining content such as using humour to inform students, increases engagement resulting in more likes, shares and comments. Sharing 'funny' posts or 'stupid' posts on the Facebook page about the brand will encourage people to engage with the brand (Miller, 2011).

In terms of this study, the features (share, like, comments or interaction) address the level of engagement the students have towards the university's Facebook page. This will provide evidence to whether Facebook should be a tool in which the university should put more resources such as human capital towards it.

Junco (2012:163), argues that students use Facebook in high rates and Facebook is an engaging platform that can be used in measuring user engagement. Student use and involvement with the Facebook page can be conceptualised using Junco's (2012:169; Astin, 1984:519) three principles of engagement:

- The investment psychological and physical energy is referred to as engagement; there is a lot of energy that students apply when using Facebook, which includes the constant checking of updates and the contributions they add while conversing.

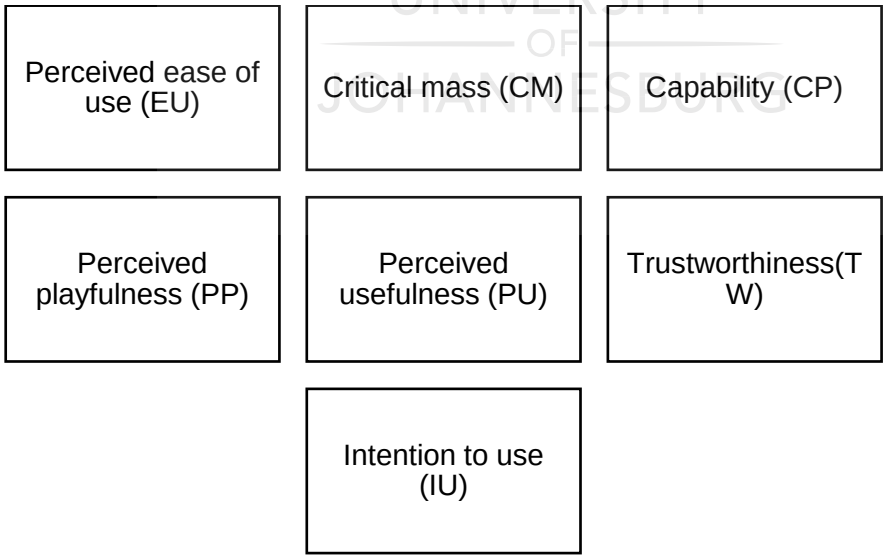
- Engagement occurs along a continuum; the Facebook page can be used for different types of activities, for example, it can be used for entertainment and as an educational tool.
- Engagement has both qualitative and quantitative features: the qualitative features include the variety of activities on the platform and quantitative features include the time spend on the Facebook page.

Lastly, engaged customers play a very important role in the performance of the business by providing word of mouth about the brands, products and services (Brodie, Hollebeek, Biljana & Ana, 2011). Therefore it is important to discuss the factors that influence customer engagement using Facebook.

2.5 Factors influencing customer engagement

There are a number of factors that can be used to influence customer engagement with an organisation's Facebook page. When a university administers a Facebook page, there are a number of factors to consider in order for the university to create value through its Facebook page (Rauniar et al., 2014:16). The Facebook factors to be discussed in the study are shown in the Figure 2.2 below:

Figure 2.2: Factors influencing student engagement/actual use of a Facebook page.



Source: Adopted from: Rauniar et al. (2014:16).

2.5.1 Perceived ease of use (EU)

Mathieson (1991:174); Gahtani and Gefen and Straub (2000:2) acknowledges that perceived ease of use (EU) is “the extent in which a person believes that using an exact method will be of no cost to the individual”. Davis (1989), defined EU as “the degree to which a person believes that using a particular system would be free from effort". This means that the users find the technology or system simple to learn, compatible and flexible to the users’ values and needs. Several researchers have discussed the importance of EU in different systems which show how effortless the system needs to be for the consumer to enjoy using it (Praveena & Thomas, 2014:25; Jahangir & Begum, 2008:34).

The Technology Acceptance Model (TAM) suggests that EU is important to determine the attitude towards using a system (Gahtani, 2001:40). Lin and Lu (2000) and Shih (2004:720), state that there is a positive relation between EU and perceived usefulness (PU), which means when customers find the Facebook platform easy to use they are willing to engage with the content and other users. It is important to investigate EU with social media such as Facebook as it will impact on behaviour intention to use Facebook, which will further present the degree of customer engagement produced (Vatanparast, 2010).

The university’s Facebook page should be easy for people to access and the content should be understandable without going out of their way to understand it (Mardikyan, Besiroglu & Uzmaya, 2012:4). This also means that the easier it is to use the Facebook page the greater will the user perceive their capability to use the social website comfortably (Saade, & Kira, 2007:1190). Customers, such as students, want to use the Facebook page with minimum effort, this means if students are searching for certain information on the Facebook page they should not find it difficult to do so, otherwise if they are not patient enough to want to learn how to use the page they may leave the page (DeMers, 2015). Lai, Huang, Lu and Chang (2013:1517), believe that EU will affect the customers/students willingness to associate themselves with a particular Facebook page.

Therefore, the university can increase its ease of use on their Facebook page by putting a search button on the Facebook page so that it is easy for users to know where information, content and photos are situated. EU can be determined in how the

Facebook page is structured. When the page layout is difficult to operate with or if the customers find it difficult to operate on your Facebook page they will leave the page immediately and only return to use the page when it's really necessary (Belosic, 2014).

The Facebook page provides administrators with the ability to adjust the page to suit the university's purpose (Belosic, 2014). This means the Facebook pages should be designed to help brand engagement with the customers and give the readers the opportunity to share their content with their community (Mooney, 2013). The layout of the Facebook page can assist the customers to feel welcome and spend more time on the page, encouraging engagement (Ellen, 2017). A cluttered Facebook page will make it difficult for customers to concentrate because it will be too busy. Structuring the Facebook page in such a manner that students feel welcome to visit the page will increase a lot of traffic on the page.

2.5.2 Critical mass (CM)

According to Chesney and Lawson (2012:2) critical mass (CM) is a small group of early adopters who are highly motivated to use the technology. CM also defined as "the degree to which a person believes that most of his or her peers are using the system" (Lou, H., Lou, W. & Strong, 2000:95). Markus (1987:500), believes that the theory of CM is stated when an assured proportion or number of users (CM) have been enticed to use the page and communication can spread rapidly throughout the community. Perceived critical mass produces peer pressure among groups of people (Lou, H, Lou, W & Strong, 2000:94). Social influence is commonly seen on Facebook pages, and through these pages, people engagement is formed and it is a source in which information is transferred.

This means that when using a technology that has reached CM, usage will spread encouraging others to join the group of people with little effort (Cameron & Webster, 2005:90). Facebook is a tool that enables people with little effort, but for the UJ Facebook page to be considered to have reached its CM it should be able to reach a lot of people and be effective.

2.5.3 Capability (CP)

According to Rauniar et al. (2014:12), social media capability (CP) is defined in terms of "the site's features, applications, and social media tools to benefit the user's need for social media activities". Focusing on the Facebook page this will include the

postings, comments, being able to edit the wall, receiving automatic news feeds, being able create group chats and creating community page development tools on the page. The university Facebook page needs to be modifiable to serve as an engagement tool between the students and the university, so that the university page attracts and maintains students' focus. (Munoz & Towner 2009:4).

Interaction features such as comments, shares and likes are also important because when the user likes, comments or shares content from other students' Facebook accounts, other users will be able to see what was liked, shared or commented on (Jayasingh &Venkatesh, 2015:20). The main argument of CP is for users to be able to upload pictures, videos or messages without difficulties with the aim of using the university Facebook page as an engagement tool.

The Facebook CP has expanded from 2004 with Facebook having features such as lookalike audiences (Facebook business, 2014). This feature enables the segmentation of people, thus identifying groups of people with similar business (Beese, 2014). Furthermore, it simplifies posting and sending messages to the relevant people. Since the university has several programmes that they offer to their customers they will be able to use this feature to segment messages that they will want to send to their students, this will also assist in making sure the right target audience engage in the conversation and avoid tediousness to other students who are not the target audience.

Another feature that marketers can use to build their brands on Facebook is the expanded video capabilities. Marketers can now advertise and view the progression of the advert through viewing these headings; post engagements, page likes, clicks to website, website conversions, application installed, application engagement, event responses, offer claims and video views (Facebook business, 2014). These features will be able to display customer engagement progression on each and every post posted.

A recent customer engagement feature that was added is Facebook live. Facebook live is when a sender posts a video in real time and can directly communicate with the audiences who are viewing the post in real time. Direct communication is experienced as the sender can answer any questions the audience may have. According to Dougherty (2015) and Cohen (2015), live videos have higher engagement volume to

platforms such as YouTube or Instagram which are populated with people and subscribers.

The university can post a live video of events or occasions that will be happening within the university. This will also allow for a live engagement with the audience. This feature can assist especially if the University wants to have a live discussion with their students. Live video increases the chances of immediate customer engagement.

2.5.4 Perceived playfulness (PP)

Moon and Kim (2001) defined perceived playfulness (PP) as "the extent to which the individual perceives that his or her attention is focused on the interaction with the world-wide-web; is curious during the interaction; and finds the interaction intrinsically enjoyable or interesting". PP is the "perceived hedonic value amplified by fun, excitement, creativity and pleasure accruing from use of the system" (Celik, 2011:393). PP on Facebook is seen when a customer is constantly on the Facebook page (Praveena & Thomas, 2014:25). PP is a subjective experience that an individual has with the system or Facebook page (Moon & Kim, 2001:219). There are three dimensions which describe PP which include enjoyment, curiosity and concentration (Hsu, Li. Chien-Kuo, Chien-Ming, & Liu, 2016:162). These dimensions are important when one interacts with the system:

- Enjoyment: the users are fully involved in the activity and find the interaction intrinsically interesting (Glynn & Webster, 1992). Intrinsic motivation refers to "the performance of an activity for no apparent reinforcement other than the process of performing the activity per se" (Davis, Bagozzi, Warshaw 1992:112). Intrinsic reward is an intangible reward that one feels for participating in an activity. When students engage with the university's Facebook page intrinsically it will mean it is of no effort to them to participate on the Facebook page. When students enjoy engaging with the Facebook page they will be able to share and like posts on the page and spread positive word of mouth about the university, which will attract other students to want to join in the entertainment.

- Curiosity: this is the individual's ability to have sensory or cognitive curiosity aroused through activities such as video postings and status updates (Malone, 1981). When people become curious they may want to further follow or subscribe to the brand (Klich, 2014), in order to not miss anything that will be

happening on the Facebook page and eventually they will engage with the brand.

- Concentration: is the state in which an individual focuses all their attention on a particular activity (Martinez-Lopez, 2014:378, Csikszentimihalyi's 1975). When customers fall into a playful state they will interact and engage with the Facebook page. The mind and the body are then focused on that particular activity (Hammerness & Moore, 2012)

The three dimension may not all be present on the one particular Facebook page but one or two of the dimensions may be present (Moon & Kim, 2001:219). A social media website that has playfulness dimensions also needs to have features that make the users experience fun (Follett, 2007).

With a university Facebook page PP is seen when students are constantly eager to see the post that has been posted on the Facebook page (Briggs, 2016). The comments can be a video, message or a picture. If students enjoy the university Facebook page they will not hesitate to share the comments with their friends and family by either liking the page or sharing the posts encouraging customer engagement. When students share or like the post other people may join that Facebook page creating awareness for the University. The more the people become aware of the events and information being shared by a particular brand, the more interested their followers become aware of the brand and engage on the Facebook page (Vertical leap, 2017).

2.5.5 Perceived usefulness (PU)

Perceived usefulness (PU) is achieved when a product or service improves the way the user could have used the product or service before (Jahangir & Begum, 2008:033). In a university the products are the courses or degrees that students enrol in, and services include the facilities the students' use, such as the student centre, the lecturers and any other intangible products offered by the institution. Facebook products and services include advertising and communication platforms. Facebook mobile, messenger, paper, slingshot, rooms and internet.org applications are some of the products and services provided (Facebook help center, 2017). Services such as page manager and audience insights are the products offered to business partners only.

PU is formed by cognitively juxtaposing what a system is doing to what it needs to do in its job (Venkantis & Davis, 2000:190). It also used to represent users' assessment regarding the useful benefits of system utilisation such as a system's facilitation of efficiency and effectiveness in completing a certain task (Celik, 2011:394). Explicitly, it reflects an individual's realization or expectation of performance gains through the system use. PU is one of the important factors in technology adoption such as Facebook (Lee, 2008:1425). Yet PU is an important determinant of PP (Terzis & Economides, 2011), which will be discussed further in Section 5.4.

PU is defined as the "subjective probability that using a specific application system will increase his or her job performance within an organisational context" (Davis, 1989; Pantano, 2015:101). Jahangir and Begum (2008:33), defined PU as "the extent to which a person deems a particular system to boost his or her job performance". It is further said that PU depend on the EU and is linked to use of new technology (Anton, Camarero and Rodriguez, 2013:373). Students will only be interested in a Facebook page if they perceive the page to enhance their performance in their education (Lee, 2008:1425). Anton, Camarero and Rodriguez (2013:374), state that the easier it is to use the Facebook page the greater the PU.

PU can be seen if the Facebook page performs in an efficient way, for example not having delays when one posts a comment on the Facebook page, another example is being able to retrieve old comments on the university Facebook page without difficulties (Ozuem &Bowen, 2016:79). This will allow students to be able to use the Facebook page without difficulties and enable them to follow up on any old and new messages that may be on the Facebook page without any complication. PU can be seen when the university's Facebook page is being accessed from different types of gadgets, the page should be able to automatically be viewed perfectly regardless of whether a tablet, a cell phone or a laptop is being used (Facebook, 2017).

2.5.6 Intention to use (IU)

According to Oliver (1980), IU a certain product or service depends on the satisfaction of the previous experience. PU and satisfaction plays a major role in the decision to continue using social media networks, such as Facebook. Wangpipatwong, Chutimaskul, Papasratorn (2008:56), believe that behavioural intention is determined by EU and PU. IU is an important factor because it plays into the attitude of the user;

a user with a positive attitude will have an intention to use the Facebook page (Erkki, 2014:25).

Balakrishnan (2016:1), trusts that there are six factors that affect the IU social media which are: self (social media efficacy, attitude and enjoyment), collectivism (peer influence), communication functionality (collaboration, sharing and interaction), information and communication technology facility, performance (PU, perceived flexibility and perceived credibility) and effort/influence (EU). 'Self' assists students in viewing whether the Facebook page increases their interpersonal relationships (Roblyer, McDaniel, Webb, Herman & Witty, 2010). Collectivism is the peer influence that students have on other students e.g. influencing other students to like the UJ Facebook page in order to receive updates about the university (Hofstede, 2001). Communication functionality occurs when students feel that the Facebook can be used to improve communication with other students. Communication functionality is the extent in which the UJ Facebook can engage with students for the benefit of the student; performance is significant because it proves as an indication to whether the Facebook page is perceived flexible and credible for the students to engage in (Ayeh, Au & Law, 2013). Effort/influence, students are viewed as technology savvy, therefore the question would be, do students feel they is less effort in associating themselves with the page and does peer influence has a major role in the engagement. Among the six factors, self was considered the strongest when using a social media website such as Facebook. This means that when the brand wants to engage or relate with its customers it needs to appeal to the 'self' of each individual.

2.5.7 Trustworthiness (TW)

Trust is defined as "the perception of the trustor about the degree to which the trustee would satisfy an expectation about a transaction constituting risk" (Moturu & Liu, 2011:242). In other words trustworthiness is the aptitude to be relied on as a truthful person or honest person. Trust reduces social complexity concerning a person or a brand (Siegrist & Cvetkovich, 2006). Moturu and Liu (2011:243) believe there are two categories which reflect TW. The first category includes reputation, performance, and appearance; and the second category involves contextual cues which are external. The same applies to social media accounts such as Facebook. The reputation of the Facebook account will determine how many people believe and trust the page resulting in more engagement and followers on the Facebook page. How well the page

performs will also determine how many people will come back to your Facebook page, and appearance is also very important because that is what attracts people to your Facebook page. These features together influence how people may perceive your Facebook page to be trustworthy (Nurse, Rahman, Creese, Goldsmith & Lamberts, 2011; Kim, 2008:13).

According to Holst (2011), there are eight ways that make your Facebook page trustworthy which are:

1) investing in the design, an aesthetic design will make people appreciate the effort you put in making the page attractive;
2) show a pulse- this means constant updating news on the page so that people know the page is active and not abandoned;
3) humanise your website, pasting pictures or videos of people on the Facebook page will make them feel that they are engaging with real people and not a robot;
4) utilising social proof, this can be done by also putting links into the other Facebook pages that the brand has such as twitter and the UJ website;
5) make it speedy, make sure the Facebook page is quick to upload;
6) don't hide, display your real address on the page so that its easier for a visitor to come to the institution,
7) proofread, make sure there aren't any mistakes on the Facebook page;
8) have a suggestion section, where your customers may assist the university to become more trustworthy. If the students feel the Facebook page is trustworthy they might feel the need to use the page on a regular basis (Rauniar et al., 2014:22).

Facebook appraisals are trusted more compared to advertisements that marketers produce. The reason is that customers perceive Facebook information to be credible and not bias (eMarketer, 2010).

2.5.8 Actual use (AU)

The number of monthly active Facebook users is 1.79 billion worldwide, which is an increase of 16% on the past year according to Facebook (Zephoria, 2017). Facebook has 1.18 billion people who are daily users of the Facebook platform (Constine, 2016). The number of people that can access Facebook through mobile devices are above

1.66 billion people worldwide (Constine 2016). These statistics stress the importance of Facebook for businesses.

Hampton, Goulet, Marlow and Rainie (2012:17), were able to measure how often people used the Facebook service by asking participants to answer a survey on how often they click on the 'like' button, how often they post a status update and how often they comment on someone else's comment. Davis (1989), defined actual system use as "a form of external psycho-motor response that is quantified by individual users' real course of action". Later Rauniar et al. (2014:14) defined actual use (AU) as the rate at which social media is used by the user. This will provide information on how often students are able to view any updates that will be posted on the university's Facebook page.

According to Junco (2011:163) actual Facebook use needs to be measured as it will provide the relationship between Facebook use and student engagement. However, actual Facebook use is a bit difficult to measure proven by the number of researchers who had difficulties measuring AU (Junco, 2013:627; Kalpidou, Costin, & Morris, 2011; Kujath, 2011). This is because the 'time spent on the site' and 'number of logins' are two different measurements and cannot be used to evaluate the same thing. As a result estimating the time a student spends on the Facebook page will not be easily determined. However, customer engagement can be measured by the numbers of likes, comments or any other type of participation on the Facebook page.

2.6 Conclusion

Marketing and the use of technology are complementing one another, and it is the marketer's responsibility to stay abreast of any changes in order to continuously satisfy their customers' needs. Universities are seeking for ways to engage with their students as customers. Facebook provides opportunities that are to be valued and are imperative. It is therefore important to have discussed the factors that the universities can utilise to improve student engagement. Although there are disadvantages of social media platforms such as Facebook, a close monitoring of the platform page is pivotal as it allows the university to address any negative feedback that can spread by this Facebook platform.

As discussed above Facebook is an important tool for engaging with customers, as it will yield a positive result for the organisation. Therefore taking a close look into the

factors (EU, PU, CP, PP, AU, TW, CM, IU) that influence customer engagement will assist the university in achieving their ultimate goal. A future research study can also investigate factors influencing customer engagement with other social media platforms such as Twitter and LinkedIn as these social media platforms are also used in the educational sector. The results of this study will be limited to UJ Facebook page customer engagement.

The next Chapter will discuss the methodology to be employed for the study. It will also address the survey to be administered and how it will be administered. A broad view on the sampling method, data gathering technique, data analysis and the reliability of the results will be discussed.

CHAPTER 3

METHODOLOGY

3.1 Introduction

For organisations, such as HEIs, to survive and thrive in the competitive landscape they operate in, they constantly need to examine their competitors, customers and stakeholders (Swanger, 2016:1). This type of 'examinations' is better coined as marketing research, refer to the gathering of data, specifically customer data with the aim of converting the data into valuable information that should unearth reasons to why customers behave in a certain way (Clow & James, 2014:4; Zikmund & Babin, 2013:2; Kaden, Linda & Prince, 2012:5). Malhotra (2015:28) define marketing research as a systematic process that involves the objective identification and use of information for rejuvenating decision making related to the identification of problems and opportunities as well as the solving of problems. Thus, marketing research takes place for two reasons: (i) to identify and (ii) to solve marketing problems but paramount to achieving these two objectives is the adoption of a solid methodology or research process to steer the marketer systematically on this journey (Ahmed, Opoku & Aziz, 2016:13; Malhotra, 2015:31).

Marketing research is a science that involves scientific methods to guide the marketer when gathering information, to convert this into knowledge about the customers' attitudes, behaviours or perceptions towards certain services, brands or products (Clow & James, 2014:5; Zikmund & Babin, 2013:2; McDaniel & Gates, 2013:4). This chapter briefly describes the research methodology, research design utilised for this study, and the research process adopted for this study. A sequential, systematically and interrelated research process was followed as depicted in Figure 3.1 (Aaker, Kumar, Leone & Day, 2013:42; Zikmund & Babin, 2013:8; du Plessis, 2010:114). This chapter also provides a discussion on the theory behind the selection of the sample, the design of the questionnaire and the development of items and constructs used in the questionnaire. The chapter concludes with a section on data collection and data analysis employed for the study.

3.2 The research process

Marketing research aims to objectively and systematically analyse information to identify and find solutions for the problem at present (Shukla, 2008:14). This means

that a comprehensive research process plan needs to be developed in order to address the objectives with minimum time, effort and money (Kothari, 2004:14). The research problem needs to be concise and should be in precise terms in order for the researcher to solve the problem (Al-Riyami, 2008). The correct methods and analytical techniques will need to be identified to best conduct the research. The basic steps that the researcher should consider are: problem description, developing an approach to the problem, formulation of the research design, data collection or fieldwork, data preparation and analysis, report preparation and presentation (Malhotra, 2010:40; Sreejesh, Mohapatra & Anusree, 2014:14; Kothari, 2004:11).

The research process steps are depicted by Figure 3.1. The Figure presents the steps that will be used in extracting the right information for the study. Each step is discussed below.

Figure 3.1: Steps in the research process

Source: Adopted from Sreejesh et al. (2014:14).

3.2.1 Step1: Identifying and defining the research problem or opportunity

Identifying and defining the problem or the opportunity is the first step in the research process as this assists organisations in sustaining themselves in the competitive market environment (Sreejesh et al., 2014:14). A well-defined problem directs the research and provides guidance to the effective allocation of resources. A clear

understanding of the problem enables the correct adoption of either/and a primary or secondary research method that should be followed (Vosloo, 2014:299).

Chapter one (refer to Section 1.6, p. 15) provided an overview of the problem facing the HEIs. The problem identified, is that in a highly competitive HE environment universities compete for the same high quality students and these students are engaged with social media platforms, such as Facebook. It is important also for universities to foster customer (student) engagement as the outcomes of this engagement involve favourable behavioural intentions and positive outcomes, such as loyalty with respect to the service experienced by university students. It is therefore proposed that to determine the factors that influence student engagement with Facebook, could potentially result in positive and desired outcomes for the university.

3.2.2 Step 2: Developing an approach to the problem

When the researcher has identified the problem, the next step is to develop an approach to solve the problem (Hair & Celsi, 2016:119). The approach consists of identifying the secondary objective and formulating either the research questions or the hypotheses, as well as identifying any other information needed (Malhotra, 2015:32). The primary and secondary objectives of the study are presented below.

3.2.2.1 Primary objective

The primary objective of the study is to determine the factors that influence student engagement with the UJ Facebook page.

3.2.2.2 Secondary objectives

The secondary objectives are established from the primary objectives of the study which are as follows:

- To provide a demographic profile of UJ students taking part in the study.
- To determine the Facebook patronage habits of UJ students taking part in the study.
- To empirically measure the factors that influence student engagement with the UJ Facebook page.
- To measure the extent to which UJ students engage with the UJ Facebook page.

- To determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page.

3.2.2.3 Hypotheses

A hypotheses statement is comprehended as a proposition or an unproven statement about a phenomenon or factor that the researcher is interested in (Wild & Diggins, 2015:4; Malhotra 2012:83). The hypotheses below were developed to determine a possible relationship between the independent variables (perceived ease of use, critical mass, capability and perceived playfulness), the two intervening variables (perceived usefulness and intention to use); and the dependent variable (actual use/student engagement). There is also a moderate variable (trustworthiness) potential path to a dependent variable (intention to use) as illustrated in the Figure 3.2 below.

H_1: Perceived ease of use (EU) of the Facebook site is positively related to Perceived Usefulness (PU).

H_2: Critical Mass (CM) of the Facebook user is positively related to Perceived Usefulness (PU).

H_3: Capability (CP) of the Facebook site is positively related to the Perceived Usefulness (PU).

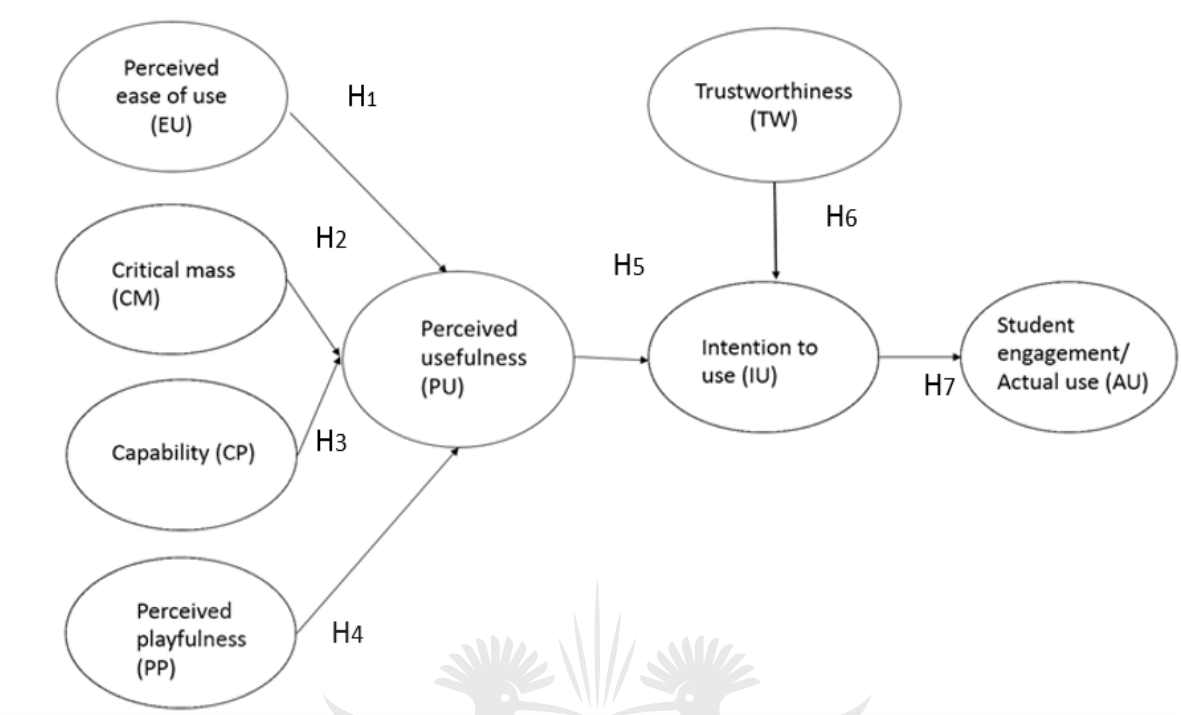
H_4: Perceived playfulness (PP) of the Facebook site for its user is positively related to the Perceived Usefulness (PU).

H_5: Perceived usefulness (PU) of the Facebook site is positively related to the Intention to Use (IU) the Facebook site.

H_6: Intention to Use (IU) the Facebook site is related positively related to the Actual Use (AU) of the Facebook site.

H_7: Trustworthiness (TW) of the Facebook site is positively related to the Intention to Use (IU) the Facebook site.

Figure 3.2: Factors influencing student engagement (also refer to Section 1.5.1, p. 12)



Source: Adopted from Rauniar's et al. (2014).

3.2.3 Step 3: Planning the research design

Before the research design can be determined, the researcher needs to decide the type of research that will best provide adequate results. Part of deciding which research to use includes influencing, monitoring and hypothesis testing. The research design provides the blueprint on how the study is going to be conducted based on the objectives (Malhotra, 2010:103; Clow & James, 2014:34). It is thus the detail of the procedures that must be considered and implemented for obtaining the information needed (Malhotra, 2015: 32; Malhotra, 2010:103).The two main research designs that are used are exploratory research and conclusive research (Wild &Diggins, 2015:65). These two designs are expanded into causal research and descriptive research (Wild & Diggins, 2015:66). The primary objective of an exploratory research design aims to provide a great insight and understanding to the problem the researcher wants to solve, and conclusive research aims to test hypotheses and examine the relationships between variables (Malhotra, 2010:103; Wild & Diggins, 2015). Selecting the correct research design is paramount to the researcher as it results in achieving the desired results (Tully, 2014:33). A research paradigm discussion will be necessary to provide a world view of which research design will best suit this research study.

3.2.3.1 Research paradigms

A research paradigm is worldly beliefs and assumptions that guide researchers when thinking a framework to apply in a research study (Jonker & Pennick, 2010; Wahyuni, 2012:69). There are four paradigms that are presented in Table 3.1, which are pragmatism, positivism, realism and interpretivism (Wahyuni, 2012:70; Saunders, Lewis & Thornhill, 2012:140).

Table 3.1: Comparison of four research philosophies in business and management research.

	Pragmatic	*Positivism*	*Realism*	*Interpretivism*
Ontology: the researcher's view of the nature of reality or being	External , multiple view chosen to best enable answering of research questions	External, objective and independent of social actors	Is objective, exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	Socially constructed subjective , may change multiple
Epistemology: the researchers views regarding what constitutes acceptable knowledge	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspective to help interpret the data	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalisations, reducing phenomena to simplest elements	Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively phenomena create sensations which are open to misinterpretation (critical realism. Focus on explaining within a context or contexts	Subjective meaning and social phenomena, focus upon the details of situation, reality behind these details, subjective meanings motivating actions
Axiology: the researchers view of the role of values in research	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view	Research is undertaken in a value-free way , the researcher is independent of the data an maintains an objective stance	Research is value laden, the researcher is biased by world view, cultural experiences and upbringing. These will impact on the research.	Research is value bound, the researcher is part of what is being researcher, cannot be separated and so will be subjective
Data collection techniques most often used.	Mixed or multiple method designs, quantitative and qualitative	High structured large samples measurement, quantitative , but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in-depth investigations, qualitative.

Adopted from: Saunders, Lewis and Thornhill (2012:140).

A paradigm is viewed as “a set of basic beliefs (or metaphysics) that deals with ultimates or first principles” (Guba & Lincoln, 1994:107; Brennan, Voros & Brady, 2011:103). As depicted in Table 3.1 there are four paradigms that can be used. Based on the Table 3.1 above, positivism was selected for this study. The study requires a large group of people to undergo the research study, it also needs people who can provide an objective opinion and therefore the positivism paradigm will assist in this regard (Malhotra, Birks & Wills, 2010:191).

3.2.3.2. Descriptive research

Descriptive research is mostly used when the researcher wants to explain, monitor and test the hypotheses (Wild & Diggins, 2015:67). Descriptive research is used to describe market characteristics or functions. According to Malhotra (2010:106), descriptive research is conducted for the following reasons: “to make forecasts, to determine the degree to which marketing variables are associated, to determine the perceptions of product characteristics, to estimate the percentage of unit in a specified population exhibiting a certain behaviour, and describe the characteristics of relevant groups such as consumers, salespeople, organisations or the market areas”.

The descriptive research designs are aimed to answer the who, what, when, where, why and how questions (Clow & James, 2014:28). Methods that can be used when using descriptive research are surveys, panels, secondary data and experiments.

Competition in the university landscape has increased and universities are searching for better means to engage with students. Engaged students have a better tendency to be loyal to the university, and engagement can create and instigate a great experience at the university (Antaramian, 2016). Descriptive research will be suitable for the study because it will determine the degree to which the UJ Facebook page will be deemed effective to the students as a customer engagement tool. Therefore using the customer engagement factors (Section 1.5.1, p. 12), the researcher will be able to gather the relevant information.

The research study uses both primary data and secondary data. Primary research is collected, when the study is being conducted for the first time, in order to get a better understanding of the background of the study (Burns & Bush, 2014:122). Secondary data is data that was collected for other purposes but can be used as reference to the

study. Since this study has never been conducted at the University of Johannesburg, primary research will be administered. The primary data was collected using a survey.

3.2.3.3 Quantitative research

Primary data can be collected using either qualitative or quantitative research. Qualitative research is unstructured, not in numerical form, and investigative in nature (Malhotra, 2010:73). Qualitative research can be collected using in-depth interviews, projective techniques and focus groups while quantitative research collects data numerically, seeks to quantify data and use statistical analysis (Williams, 2007). Quantitative research can be collected by using surveys, observation and experiments (Creswell, 2003:18). This study will be conducted using the quantitative method, which could involve personal interviews, telephone interviews, mail surveys and web-based surveys (Wild &Diggins, 2015: 94). A questionnaire will be used to administer the study, because the respondents are in a controlled environment, personal administering the questionnaire will also provide the respondents with easy access to ask the researcher if they have any questions.

Quantitative research will be best suitable for this study because it will enable the quantification of the data and provide a statistical analysis (Malhotra, 2010:171). Quantitative research is able to represent a large number of people, in this case 49 500 students at the University of Johannesburg; the data collection method is structured; the data analysis is statistical and the outcome for a quantitative research study is to recommend a final course of action (Neill, 2007).

3.2.4 Step 4: Selecting a research method

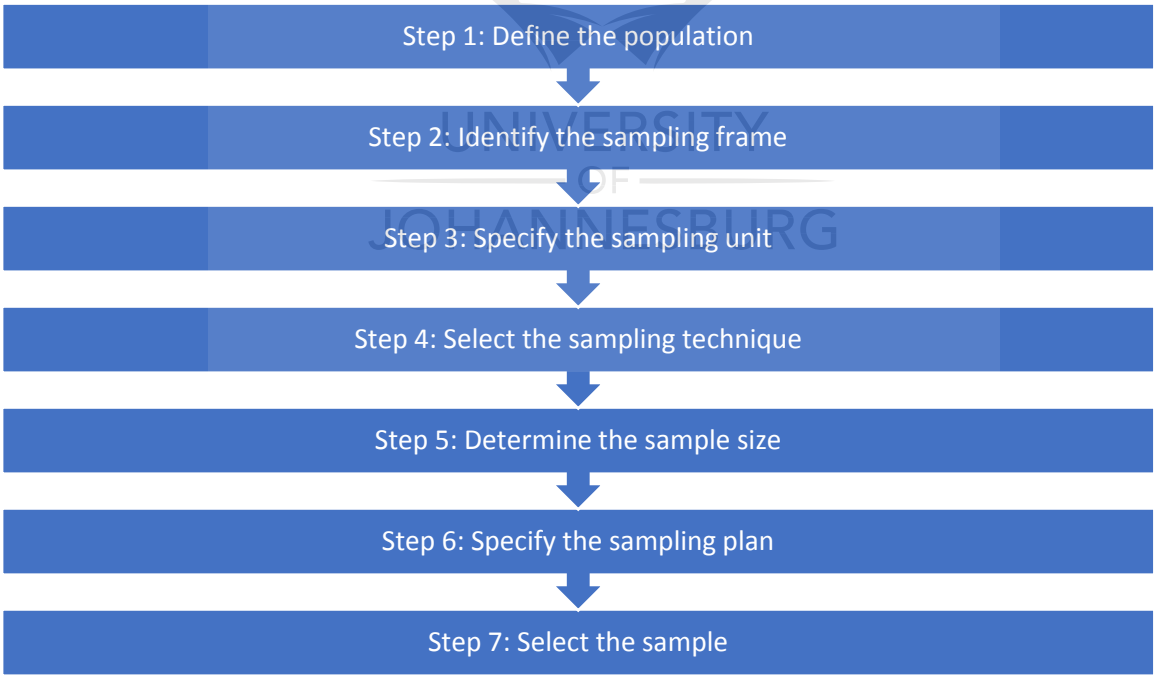
According to Sreejesh et al. (2014:17), there are four basic methods that can be used to conduct the research study; these are observations, secondary data studies, surveys, and experiments. The objectives of the study assist in selecting the research method to be used. The urgency of the research study also contributes to the research method. Surveys will be used to collect the data. The research study will be using survey questionnaires. A survey gathers information through respondents answering a questionnaire administered to them (Clow & James, 2014:342; Babin & Zikmund, 2016:68). A survey is used to collect raw data which is also called primary data. A survey is an important tool because it is able to document existing community conditions and provide a baseline data which further demonstrate progress within the

community (Guyette, 1983:47). Since a similar research study has not been conducted at the university it will be best to collect raw data. Secondary data sources were also used in the in the literature process of the study.

3.2.5 Step 5: Selecting a sampling procedure

According to Babin and Zikmund (2016:337), a sample is as a "subset of a population that is measured or observed in some way to infer what the entire population is like". Barreiro and Albandoz (2001:2), believe that a good sample is a representation of the whole population; therefore the results collected should represent the characteristics of the population. Sampling is an important process as an error in the sampling process can tarnish the entire research study (Hair & Celsi, 2016:189). The size of the population needs to be allocated adequately, as this will provide effective results. There are many ways in which researchers can administer the research to find the best sampling procedure to collect the accurate data for the study. Berndt and Petzer (2011:171), illustrated steps that a researcher can undergo when sampling a plan as depicted in Figure 3.3.

Figure 3.3: The sampling process.



Source: Adopted from: Berndt and Petzer (2011:171)

A sampling plan can only be executed after the researcher has identified the appropriate target population, sampling size, sampling frame and sampling method, which is indicated by Table 3.2, below.

Table 3.2: The sampling plan

Target population	•3rd undergraduate students in the Faculty of Management who have a Facebook account.
Sampling Frame	•A list of the number of students in each of the eight departments (see appendix 2) in the Faculty of Management at UJ
Sampling units	•Students in the eight departments in the Faculty of Management at UJ
Sampling elements	•Students in the Faculty of Management who have UJ Facebook presence
Sampling technique	•Non-probability technique, quota sampling (judgement and convenience sampling).
Time	•Year 2017
Area	•APK, APB,SWC,DFC
Sampling size	•400 students who have liked the UJ Facebook page.

Source: Developed by the researcher for the study.

The steps in Figure 3.3, will be discussed in detail with the aid of Table 3.2, to elaborate further the research study methodology.

3.2.5.1: Step 1: Define the population

Berndt and Petzer (2011:171), established that the population can be defined through looking at the sampling elements, sampling units, extent and time of the research project. The target population is defined as “the collection of elements or objects that possess that information sought by the researcher and about which inferences are to be made” (Malhotra, 2010:372). The target population of the study is third year undergraduate students in the Faculty of Management (also see Chapter 1, Section 1.7.5, p.19) who have visited the UJ Facebook page during the last couple of months.

These are the students who have visited, 'served', commented and/or liked the UJ Facebook page and who received updated information regarding the university, its events and fellow students' posts on their UJ Facebook page.

3.2.5.2 Step 2: Identifying the sampling frame

According to Berndt and Petzer (2011:171) a "sampling frame is the list of sample units available for selection at this stage of the sampling process". Turner (2003:4), states that a perfect sampling frame should be accurate, complete and up-to-date. The sampling frame of this study will be a list of the eight departments, illustrating the number of students on first, second and third year level in each department in the Faculty of Management. The questionnaire will be administered in the students' lecture venues.

3.2.5.3 Step 3: Specify the sampling units

The sampling unit is the minimum unit of observation for the information needed to be investigated (Forestry department, 2002). In order to construct a clear sampling frame the sampling unit needs to be very clear. The sampling units of the study are the eight departments (see appendix 2) of the Faulty of Management at the University of Johannesburg.

3.2.5.3.1 Sampling elements

A sampling element is the unit of analysis or case in a population that can be for example an organisation, people, groups, etc. (Malhotra, 2010:372). Since the focus of the study is on undergraduate students and their engagement with the UJ Facebook page, the elements of this study will be the third year students (also see Chapter 1, Section 1.7.5, p.19).

3.2.5.4 Step 4: Select the sampling technique

There are two main sampling techniques to obtain a representative portion of the population, which are non-probability and probability sampling (Malhotra, 2010:376). In probability sampling every member has a non-zero or known probability of being selected (Babin & Zikmund, 2016:348; Clow & James, 2014:229). Non-probability sampling units are selected based on personal convenience and judgement, therefore the probability of members in a population being chosen is unknown (Babin &

Zikmund, 2016: 348). Due to the study at hand, non-probability sampling best suits the research study because the researcher will be using his/her personal judgement towards the respondents. Brick (2014), believes that the cost to collect data with non-probability sampling is less than the cost of probability sampling and he further believes that if a target population is stable, non-probability sampling is more accurate than probability sampling. Non-probability sampling gives the researcher the ability to accurately select the best respondents for the study. Malhotra (2010:376), classified four types of non-probability sampling techniques which are: convenience sampling, judgemental sampling, quota sampling and snowball sampling. For the sake of the study quota sampling (which is a combination of the judgemental and convenience sampling) will be used.

3.2.5.4.1 Quota sampling

According to Burns and Bush (2014: 258), quota sampling is best used when the researcher has great detail of the demographic profile of the population. Quota sampling is a two-stage judgemental sampling technique. The first stage develops control groups, or quotas of the population elements, which are the third year students (Malhotra, 2015:278). The control characteristic, in this case included the following:

- A third year student in the selected eight departments of the Faculty of management.
- The student should be attending the course class elective at a selected time and date.
- The student should have visited the UJ Facebook page.

During the second stage of this process, the researcher selects sample elements based on convenience and/or judgement (Malhotra, 2015:278). The sample needs to be representative of the entire population. Quota sampling helps to identify students who are willing to be approached and these students are easily accessible in a controlled environment. The advantages of quota sampling is that data are convenient and easy to collect and it is a cost effective technique to collect data. Berndt and Petzer (2011:174), argued that quota sampling is a combination of judgement sampling and convenience sampling.

3.2.5.4.2 Convenience sampling

Convenience sampling is often an easier technique to collect data as the elements are conveniently selected by the interviewer (Malhotra, 2015:277). Convenience sampling is the least expensive technique to collect data. The data can be collected in the shortest time frame possible because of the convenient setting e.g. the University of Johannesburg campuses (Battaglia, 2011:525; Burns & Bush 2014:255). Another advantage of convenience sampling is that the sampling units are accessible and the data is easy to measure. The disadvantage is that there could be a biased judgement.

3.2.5.4.3 Judgemental sampling

According to Malhotra (2010:379) and Burns and Bush (2014:255), judgemental sampling is also another form of convenience sampling because the researcher selects the elements to undergo the study. Low cost budgets, convenient settings and quicker methods to collect the data mentioned above on convenience sampling also apply to judgemental sampling (Babin & Zikmund, 2016:339). This explains why both sampling techniques will be administered in the research study as these sampling methods will assist in collecting relevant data to the study. Students will be judged according to whether they have a Facebook account and whether they have visited the UJ Facebook page. Deliberating when exactly the data will be collected will assist collecting adequate data.

3.2.5.4.4 Time

The collection of data will occur during the month of April 2017. April is the perfect opportunity because students will be back from recess, class attendance will be at its maximum and the research collection will not affect the test and exam dates. The data will be collected a few minutes after class starts or a few minutes before class ends to avoid disturbing the lecture.

3.2.5.4.5 Area

According to Turner (2003:6) and Kulshreshtha (2013:30), there are four distinct characteristics of geographic units that are important for a sample design which are: “the geographical units cover, the entire land area of a nation; the well-delineated boundaries; the availability of the population”. The two University of Johannesburg campuses, which will undergo the study, are the Auckland Park Kingsway Campus

and Auckland Bunting Road Campus. These two places will be able to provide adequate results for the study.

3.3.5.5 Step 5: Determine the sampling size

According to Burns and Bush (2014:273) and Quizlet (2017), in order to determine the sample size, three items are required, which are: 1) the variability trusted to be in the population, 2) the tolerable margin of sample error, 3) the level of assurance essential in your approximations of the population values. The sample size should be representative of the population. The sample size of the study is 400 students. 400 students is the number of the students who were willingly to participate in the study who had Facebook account and had visited the UJ Facebook page in the Faculty of Management. There are eight departments (see appendix 2) in the Faculty of Management; therefore this means an average of 50 students in each class will be able to represent the Faculty, the university and the study.

3.2.5.6 Step 6: Specify the sampling plan

The sampling plan provides details such as the target population, sampling frame, sampling units, sampling elements, time, area, and sampling size (Babin & Zikmund, 2016:69; Malhotra, 2015:272). The costs that will be anticipated in the study will be determined including the sampling design.

3.2.5.7 Step 7: Select the sample

In a non-probability sampling, the researcher chooses the respondents to participate in the study (Malhotra, 2010:376). A non-probability quota sampling technique makes sure that numerous subgroups of the population (students) will be represented (Babin & Zikmund, 2016:349). Quota sampling will be adopted for this study as motivated earlier in this chapter. The respondents were third year students in their respective lecturing classes.

3.2.6 Step 6: Data collection

The researcher needs to make sure that the data is collected without errors regardless of the collecting data method. Errors that may arise are questionnaire errors. A pre-test can support in decreasing the chances of having less errors. Therefore it is important to pre-test a small group of people so that if needed alterations can take place (Babin & Zikmund, 2016:327). The researcher explained the study to be

conducted in the lecturing venue with the reasons of why such a research was important to be conducted. The researcher then handed each student in the venue a questionnaire survey to complete. The researcher moved around the class to assist any respondents who had questions, as soon as the respondents had completed the questionnaire the researcher immediately took the questionnaire and then thanked the respondents for participating in the research study.

3.2.6.1. Questionnaire survey

According to Malhotra (2010:335), a questionnaire is defined as a "schedule, interview form, or measuring instrument, is a formalised set of questions for obtaining information from respondents". The objectives of a questionnaire are to translate information the researcher want to research into questions, the questionnaire should encourage the respondents willingness to participate in the study, and lastly minimise the respondents' error in order to obtain the real results for the study. For this study, the questionnaire will be distributed to the third year Faculty of Management students as discussed above.

3.2.6.2 Questionnaire design

A questionnaire design process assists the researcher to be able to plan and design the questionnaire in such a way that it will provide answers to the objectives set for the study to construct. A series of questionnaire design steps shown by Malhotra (2010:336) are: "1) specify the information needed, 2) specify the type of interviewing method, 3) determine the content of individual questions, 4) design the questions to overcome the respondent's inability and unwillingness to answer, 5) decide on the question structure 6) determine the question wording, 7) arrange the questions in proper order, 8) identify the form and layout, 9) reproduce the questionnaire, 10) eliminate bugs by pre-testing". Although some research studies may not use the guidelines in the exact format, the steps can be used as a guideline to assist researchers achieve great questionnaire designs.

According to Babin and Zikmund (2016:304), the questionnaire should be relevant and accurate, in order for the researcher to fulfil the researcher's purpose. Questions to be asked are:

1. What must be asked?

2. How must questions be worded?
3. In what order must the questions be arranged?
4. What survey outline will best work for the research objectives?
5. How can the survey inspire complete responses?
6. How must the survey be piloted and then revised?

- **Scale selection**

There are a number of scales that can be used to measure items such as the Likert scale, semantic differential, constant-sum, scoring semantic differentials and graphic rating scale (Babin & Zikmund, 2016). A Likert scale measures attitudes or opinions. Likert scales frequently use a five-point scale to measure the level of agreement or disagreement about a statement (Hair & Celsi, 2016:250). For the purposes of this study a five-point Likert scale was adopted because it is likely to produce a reliable scale for the study, and it is easy to read and for participants to complete, a disadvantage could be that participants might avoid extreme category responses. A Likert scale is defined as "A psychometric response scale primarily used in questionnaires to obtain a participant's preferences or degree of agreement with a statement or set of statements" (Bertram, 2006:1; Rauniar et al., 2014). As mentioned in the previous chapters the study will focus on seven factors in which the items will be shown below. The questionnaire will have two sections: Section A will be assisting in making sure the right candidate participates in the study and Section B will focus on the seven customer engagement factors (see Chapter 1, Section 1.5.1, p.12) with the UJ Facebook page. The factors' items to be administered will be presented below.

The Table 3.3 below shows the survey administered for the study and the adopted questionnaire from Rauniar et al. (2014:20).

Table 3.3: Existing questions vs adapted questions

Questions adapted for the study	Existing questions
Perceived ease of use	**Perceived ease of use**
1. The UJ Facebook page is flexible to interact with. **2. I find it easy to get the UJ Facebook page to do what I want to do.**	1. Facebook is flexible to interact with. 2. I find it easy to get Facebook to do what I want to do.

3. **It is easy to become skillful at using the UJ Facebook page.** 4. **I find the UJ Facebook page easy to use.** 5. **Interaction with the UJ Facebook page is clear and understandable.**	3. It is easy to become skillful at using Facebook. 4. I find Facebook easy to use. 5. Interaction with Facebook is clear and understandable.
Perceived usefulness	**Perceived usefulness**
1. **Using the UJ Facebook page enables me to get re-connected with people that matter to me.** 2. **I find the UJ Facebook page useful in my student life.** 3. **Using the UJ Facebook page enhances my effectiveness to stay in touch with others.** 4. **Using the UJ Facebook page makes it easier to stay in touch.** 5. **Using the UJ Facebook page makes it easier to stay informed about the university.**	1. Using Facebook enables me to get re-connected with people that matter to me. 2. I find Facebook useful in my personal life. 3. Using Facebook enhances my effectiveness to stay in touch with others. 4. Using Facebook makes it easier to stay in touch. 5. Using Facebook makes it easier to stay informed with my friends and family.
Critical mass	**Critical mass**
1. **The UJ Facebook page is popular among my friends.** 2. **A good number of my friends have visited the UJ Facebook page.** 3. **People from my class (my fellow students) are on the UJ Facebook page.**	1. Facebook is popular among my friends in the USA. 2. A good number of my friends are on Facebook. 3. People from my work are on Facebook.
Capability	**Capability**
1. **The UJ Facebook page provides clear instructions for posting.** 2. **Images and videos can be easily downloaded or uploaded on the UJ Facebook page.** 3. **Applications and capabilities of the UJ Facebook page meet my social networking needs.**	1. Facebook provides clear instructions for posting. 2. Images and videos can be easily downloaded or uploaded on Facebook. 3. Applications and capabilities of Facebook meet my social networking needs.
Perceived playfulness	**Perceived playfulness**

UJ Facebook page features and applications are: 1. **Not delightful- Delightful** 2. **Dull- Exciting** 3. **Not thrilling- Thrilling** 4. **Not fun-Fun**	For a social networking web site, Facebook features and applications are: 1. Delightful -Not delightful 2. Exciting- Dull 3. Thrilling -Not thrilling 4. Fun- Not fun
Trustworthiness	**Trustworthiness**
1. **I trust the UJ Facebook page's information.** 2. **The UJ Facebook page provides security for my postings.** 3. **The UJ Facebook page provides security for my profile.** 4. **I feel safe in my posting with the UJ Facebook page.**	1. I trust Facebook for my information on my profile. 2. Facebook provides security for my postings. 3. Facebook provides security for my profile 4. I feel safe in my postings with Facebook.
Intention to use	**Intention to use**
1. **I intend to use the UJ Facebook page for communicating with others.** 2. **I intend to use the UJ Facebook page to get reconnected with people that matter to me.** 3. **I will continue to use the UJ Facebook page for social networking.**	1. I intend to use Facebook for communicating with others. 2. I intend to use Facebook to get reconnected with people that matter to me. 3. I will continue to use Facebook for social networking.
Actual use	**Actual use**
1. **How often per week do you visit the UJ Facebook page?** 2. **On average how many hours and minutes per week do you visit the UJ Facebook page?**	1. How often per week do you visit your Facebook account?. 2. How many hours do you used your Facebook account every week?

Source: Rauniar, et al. (2014).

3.2.6.3 Cover letter

According to Smith and Albaum (2012:65), a cover letter can either be personalised or non-personalised and it is the first page of the questionnaire. The cover letter provides a summary of what the research study is all about. The cover letter also provides the details of the researcher and ethics of the respondents who would like to participate in the study (Clow & James, 2014:343). The cover letter may also include reassurance to the respondents of remaining anonymous.

3.2.6.4 Screening questions

Screening questions also referred to as filtering questions, are used to make sure the right respondent participate in the study (Hair & Celsi, 2016:283; Clow & James, 2014:341). The screening questions had two main questions which had two additional questions that the respondents had to fill in, and depending on their selection there was a follow-up question. Table 3.4, presents the screening questions that where administered in the research study.

Table 3.4: Screening questions

Screening question	Item	Scale
1. Do you have a Facebook page	Yes	Nominal
	No	
2. Have you ever visited the UJ Facebook page	Yes	Nominal
	No	
2.1 If you have answered YES, you have visited the UJ Facebook page before; please state: (a) the reasons that made you visit the UJ Facebook page?		
b. When last did you visit the UJ Facebook page?	Yesterday	Nominal
	Last week	
	Last month	
	Two months ago	
	Other (specify)	
2.2 If you have answered NO, you have NOT visited the UJ Facebook page before; please state the reasons		

3.2.6.5 Section A: Demographics information

The demographics section will present the background information about the respondents (Wild & Diggins, 2015:327). The demographics questions included the gender of the respondents, the degree which they are studying, their age their home

language, the number of friends they have on their Facebook page, and whether they belong to a fan page or a group. Respondents will also be required to state which fan pages or groups they belong to and lastly the reasons why they visit those pages. Table 3.5 below presents the items and scales used for Section A.

Table 3.5: Demographics

SECTION A: Demographic information	**Item**	**scale**
Indicate your gender	Male	Nominal
	Female	
What degree are you studying?		
How old are you?		
Please indicate your home language?	Afrikaans	Nominal
	English	
	Xhosa	
	Zulu	
	Sotho	
	Northern Sotho	
	Tswana	
	Venda	
	Tsonga	
	Swazi	
	Ndebele	
	Other (specify please)	
How many friends do you have on your Facebook page?	1-50	Interval scale
	51-100	
	101-150	
	151-250	
	+251	
	Don't know	
How many fan pages and groups do you belong to?	None	Interval scale
	1-5	
	6-10	
	11-14	
	15+	
Which fan page(s) and/or group page(s) you visit the most?		

Why do you visit these specific pages?		

3.2.6.6 Section B: Customer engagement factors using the UJ Facebook page

Section B aims at understanding how students perceive the UJ Facebook page. This section will provide a full picture to whether the UJ Facebook page is effective within its means to the students. The factors below will be briefly explained according to the UJ Facebook page:

- **Perceived ease of use (EU)**

Perceived ease of use aims to comprehend the interaction that the students have with the UJ Facebook. If the students perceive the UJ Facebook page to be easy to use they will most likely continue to use the page again in the future. Table 3.6, below provides items and the scale used to measure perceived ease of use. A five-point Likert scale using five items adopted from Rauniar et al. (2014: 20) and Davis (1986), was used in the study with 1 being strongly disagree and 5 being strongly agree. The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.6: Perceived ease of use (EU)

B1. Perceived ease of use (EU)	Item	Scale
	1. The UJ Facebook page is flexible to interact with	Likert
	2. I find it easy to get the UJ Facebook page to do what I want it to do	Likert
	3. It is easy to become skillful at using the UJ Facebook page	Likert
	4. I find the UJ Facebook page easy to use	Likert
	5. Interaction with the UJ Facebook page is clear and understandable	Likert

- **Perceived usefulness**

Perceived usefulness aims at understanding how students regard the UJ Facebook page, whether the page adds value into their student life experiences, whether the page is effective to them as students and whether they believe there should be more that they can benefit from the UJ Facebook page. Table 3.7, below provides items and the scale used to measure perceived usefulness. A Likert scale with five items adopted from Rauniar et al. (2014: 20) and Mathieson (1991) was used in the study with 1 being strongly disagree and 5 being strongly agree. The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.7: Perceived usefulness

B2. Perceived usefulness (PU)	Item	Scale
	1. Using the UJ Facebook page enables me to get re-connected with people that matter to me	Likert
	2. I find the UJ Facebook page useful in my student life	Likert
	3. Using the UJ Facebook page enhances my effectiveness to stay in touch with others	Likert
	4. Using the UJ Facebook page makes it easier to stay in touch	Likert
	5. Using the UJ Facebook page makes it easier to stay informed about the university	Likert

- **Critical mass**

Critical mass investigates not just the respondents but what the society is thinking as well. Peer pressure from students is very common and students value what they say to each other. Critical mass provides the extent in which the UJ Facebook page is deemed important. Table 3.8, below provides items and the scale used to measure critical mass. A Likert scale with three items adopted from Rauniar et al. (2014: 20) was used in the study with 1 being strongly disagree and 5 being strongly agree. The

respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.8: Critical mass

B3. Critical mass (CM)	Item	Scale
	1. The UJ Facebook page is popular among my friends	Likert
	2. A good number of my friends have visited the UJ Facebook page	Likert
	3. People from my class (my fellow students) are on the UJ Facebook page	Likert

- **Capability**

Capability provides an understanding of the functionality of the UJ Facebook page, whether it is easy to upload and download images and videos, and whether the page meets students' needs. Table 3.9, below provides items and the scale used to measure capability. A Likert scale using three items adopted from Rauniar et al. (2014: 20) was used in study with 1 being strongly disagree and 5 being strongly agree. The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.9: Capability

B4. Capability (CP)	Item	Scale
	1. The UJ Facebook page provides clear instructions for posting	Likert
	2. Images and videos can be easily downloaded or uploaded on the UJ Facebook page	Likert
	3. Applications and capabilities of the UJ Facebook page meet my social networking needs	Likert

- **Perceived playfulness**

Perceived playfulness is measured to apprehend the students' views regarding the UJ Facebook page, whether the students perceive the page to be boring or exciting.

Students will normally engage with a brand that is exciting to them. This information will also assist the university in reviewing and revising their Facebook page to appeal to students more. Table 3.10, below provides items and the scale used to measure perceived playfulness. A five point Likert scale using four items adopted from Rauniar et al. (2014: 20) was used in the study with 1 being strongly disagree and 5 being strongly agree. The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.10: Perceived playfulness

B5. Perceived playfulness (CP)	**Item**	**Scale**
For a social networking website, the UJ Facebook page features and application are:	1. Not delightful-delightful	Likert
	2. Dull –exciting	Likert
	3. Not thrilling- thrilling	Likert
	4. Not fun-fun	Likert

- **Trustworthiness**

Trustworthiness is a very important factor because it is able to provide the researcher with the knowledge as to whether the students trust the UJ Facebook. Credibility is very important as it can make or break a brand. If the students like the page they will be able to refer to the page in the future, they will also be able to tell others about the page. They will feel safe to engage with the page. Table 3.11, below provides items and the scale used to measure trustworthiness. A five point Likert scale using four items adopted from Rauniar et al. (2014: 20) was used in the study with 1 being strongly disagree and 5 being strongly agree (Fogel & Nehmad, 2009; Telzrow, Meyer & Lenz, 2007). The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.11: Trustworthiness

B6. Trustworthiness (TW).	**Item**	**Scale**
	1. I trust the UJ Facebook page's information	Likert
	2. The UJ Facebook page provides security for my postings	Likert

	3. The UJ Facebook page provides security for my profile	Likert
	4. I feel safe in my posting with the UJ Facebook page	Likert

- **Intention to use**

Intention to use is another important factor as it provides confidence as to whether a student will continuously use the page or not. This also provides an opportunity to find out more why other students may not want to intent on using the page in the future. Table 3.12, below provides items and the scale used to measure intention to use. A five point Likert scale using three items adopted from Rauniar et al. (2014: 20) was used in study with 1 being strongly disagree and 5 being strongly agree (Mathieson, 1991; Moore & Benbasat, 1991). The respondents were asked to place a cross (X) (see appendix 1) on the number that best represented their opinion.

Table 3.12: Intention to use

B7. Intention to use (IU)	Item	Scale
	1. I intend to use the UJ Facebook page for communicating with others	Likert
	2. I intend to use the UJ Facebook page to get reconnected with people that matter to me	Likert
	3. I will continue to use the UJ Facebook page for social networking	Likert

- **Actual use**

Lastly final use provides the evidence to how many times the student uses the UJ Facebook page. This factor indicates how the students perceive the page; if they use the page regularly or not. The other factors discussed above may present the reasons as to why the students may not be using the page such as not trusting the page, perceiving the UJ page as boring, not being capable to use the UJ Facebook page, students not knowing about the page through critical mass, students may perceive the page not useful and easy to use. A Likert scale was used to measure one of the items

(Rauniar et al., 2014) and the other item was left as an open ended question. Table 3.13, below provides items and the scale used to measure actual use.

Table 3.13: Actual use

B8. Actual use	Item	Scale
	1. How often **per week** do you visit the UJ Facebook page?	
	2. On average how many hours and minutes **per week** do you visit the UJ Facebook page?	

3.2.6.7 Pre-testing of the questionnaire

The purpose of pre-testing the questionnaire is to make sure the words used are understandable, to avoid ambiguous answers, and to make sure the structure of the questionnaire is understandable and easy for the students to select their best appropriate answer (Babin & Zikmund, 2016:327). Pre-testing the questionnaire is necessary when conducting a research study because it eliminates any unnecessary mistakes that may arise. A pre-test enables the researcher to see how long it will take the respondents to complete the questionnaire (Wild & Diggins, 2015:174) and to determine if respondents understand the questions being asked. Finally, when the questionnaire has been approved primary research will be collected. Second year students were used to test the questionnaire. Table 3.14 presents changes that were administered after piloting the questionnaire.

Table 3.14: Changes administered post pilot testing

Changes that were administered after testing the questionnaire with the second years	
B5. Perceived playfulness	
The students had difficulties with realising that the items which were on the right were negative and the items on the right were positive therefore a swap was done.	
From:	**To:**
1. Not delightful-delightful	**1.Delightful-not delightful**
2. Dull –exciting	**2.Exciting - Dull**
3. Not thrilling- thrilling	**3. Thrilling- not thrilling**
4. Not fun-fun	**4. Fun- not fun**
B8. Actual use	
Intention to use, per week was highlighted to make the item clear.	

From: How often per week do you visit the UJ Facebook page? **To: How often** per week **do you visit the UJ Facebook page?**
Another change that took place was highlighting per week, this will make sure students do not miss 'per week' when complete the questionnaire. **On average how many hours and minutes do you visit the UJ Facebook page?** **On average how many hours and minutes** per week **do you visit the UJ Facebook page?**
The number sequence of all the factors also changed from Roman numerals (I, II, II, IV) to natural numbers (1, 2, 3, 4). The reason for changing was to make it easier when tabulating the data

3.2.6.8 Reliability of the questionnaire

Reliability refers to the "extent to which a scale produces consistent results if repeated measurements are made" (Malhotra, 2010:318). Reliability is shown when the measurement scale produces the same results if repeated. There are three tests that can be used to test reliability which are test-retest reliability, alternative-forms reliability, and internal consistency reliability (Malhotra, 2010:318; McDaniel & Gates, 2013:313). Test-retest reliability is when respondents are administered the same questionnaire under different conditions. Alternative-forms reliability is when two different scales are administered to respondents at two different times. Lastly the internal consistency reliability measures the reliability of a constitute scale where various items are added to form a total score.

3.2.6.9. Validity of the questionnaire

Validity is defined as "the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random error" (Churchill, Brown & Suter, 2010:257). There are three types of validity, which are "content, criterion and construct validity" (Malhotra, 2010:320). Content validity is also well-known as 'face validity'; it is a subjective but systematic way of measuring the task at hand. Criterion validity determines to see if the scale performs as expected to other variables selected. Construct validity assess the theoretical reasons why the scale works and how to improve the scale.

3.2.7 Step 7: Evaluating and processing the data

After data has been collected the next stage will be to evaluate the data. The first thing to do is, translate the collected data into a format that is easier for the researcher to

analyse, this includes coding of the data, using statistical models that will assist in evaluating the data (Malhotra, 2015:301; Babin & Zikmund, 2016:70). The data will be cleaned and edited for any errors that may affect the research study. The study requires exploratory factor analysis to be conducted and structural equation modeling. SPSS 24 will also be used in improving productivity. SPSS 24 is a popular statistical package that can be used to manipulate complex data with simple instructions (Shethna, 2016). But first there will be a brief discussion regarding data editing, data coding and transcribing data and reliability of the results as this will make it easy to analyse the data and the last part of this step discusses statistical analysis of the data.

- **Data editing**

According to Malhotra (2015:302), data editing is going through the questionnaire to ensure precision and accuracy. Data editing includes inspecting and sometimes correcting each questionnaire or observation form (Churchill, Brown & Suter, 2010:401). Part of data editing is making sure that all the questionnaire surveys to be used in the data analysis process are completed and can be used for the study.

- **Data coding and transcribing data**

Information is coded by using a number to each possible response to each question (Malhotra, 2010:454). Structured and unstructured questions are coded differently, unstructured questions are post coded after the fieldwork has been collected and structured questions are pre-coded before the questionnaire has been administered.

Transcribing of data will allow the researcher to transfer data from the questionnaire to the computer. The researcher is required to install Epidata entry client on the computer in order to capture the data and afterwards the data will be send to STATKON to start with the data cleaning.

3.2.7.1 Reliability of the results

According to Malhotra (2010:318), reliability is referred to as “the extent to which a scale produces consistent results if repeated measures are made”.

- **Sampling errors**

Sampling error is defined as the “difference between the population value and the sample value” (Wild & Diggins, 2015:118). Sampling error results from chance

variation (Burns & Bush, 2014:241). The sampling error can never be avoided unless the entire population is used, but it can be reduced by increasing the sampling size. 400 respondents will be a good sample because it's a large sample, this will minimise the number errors.

- **Response errors**

Response error takes place when a respondent is answering the questionnaire (Wild & Diggins, 2015:120). This could happen if the respondent does not understand the question or may not know the question, this may also take place if the responded is in a hurry to finish the survey. As a result the respondent will either not answer the question or will just make up the answer. A Likert scale was administered in the questionnaire to make it easier for the respondents to answer.

- **Non-response errors**

Non-response errors take place when the respondent does not fill in some questions in the questionnaire (Wild & Diggins, 2015:120). This will have an impact on the quality of data collected. Non-response error always happens when the questionnaire answer misinterprets what respondents are saying. Another form of respondent error happens when the respondents don't have enough time to complete the questionnaire and when they became uninterested in the questionnaire.

Non-response error were replaced by other participates who were willingly to participate. The data was collected from the class room before the students started their lecture, and only those students who were willingly to participate participated.

3.2.7.2 Processing and statistical analysis of data

- **Exploratory factor analysis**

Factor analysis is used to explore data patterns with the variables (Yong & Pearce, 2013:79). The two main factor analysis techniques are confirmatory factory analysis and exploratory factor analysis. Confirmatory factor analysis is used to confirm hypothesis and investigating variables and factors and exploratory factor analysis is used to uncover complex patterns by testing predictions and exploring the data (Child, 2006). In consideration of the study Exploratory Factor Analysis (EFA) will be used because it can assist the researcher in revealing an inter-relationship with the items chosen. Although the measurement scales have already been tested as valid and

reliable in a previous study (Rauniar et al. 2014), the items have been adapted for this particular study and therefore, EFA will be employed .EFA can assist researchers with managing a large number of variables.

According to Pallant (2007) and Cornish (2007), there are three steps that can be used in factor analysis. “Step 1: Assessment of the suitability of data for factor analysis” there are two main issues that need to be considered before running data through factor analysis, the first issue is checking the sample size and the strength of the variables; and the second issue is the strength of the intercorrelations among the items. “Step 2: Factor extraction” - is used to determine the smallest number of factor that best represent the variables. Extraction techniques includes principle components, principle factors and image factoring. Step 3: Factor rotation and interpretation - this step assists in interpreting the results and in order to do that, factors are rotated.

- **Structure equation model (SEM)**

In order to determine the effects of the independent variable (EU, CM, CP, PP), intervening variables (PU, IU), moderating variable (TW) and dependent variable (AU), SEM needs to be administered to realise the relationship between these factors (Statistics solutions, 2017). Structure equation modelling is a technique used to determine relationships among variables. Furthermore SEM is used to investigate if the theory fits the data. SEM is believed to be a combination between factor analysis and multiple regression (Stoelting, 2002). It provides the basis on which the models can simultaneously test the measurements and the structural relationships of the model.

The reason why it is important to use SEM is because it permits multiple dependent variables compared to the regression analysis that only permits a single dependent variable (Karimimalayer & Anuar, 2012). Another reason for using SEM is that it allows measurement error with the variables but regression analysis assumes perfect measurements.

When using SEM the researcher will be testing the association or prediction of the strength of the model with the dependent variables (Jeon, 2015:1639; Statistics solutions, 2017). SEM can be used be used for testing the indirect effects also called the mediation (Jeon, 2015:1637). Another use for SEM is testing for group differences

and it allows the researcher to see if the model is a good model for influencing different groups.

Other statistical tests that will be analysed are standard deviation, frequency of distribution, skewness, mean, kurtosis and analysis of variation (ANOVA). Table 3.15 will provide a brief view of the tests description to be used in this research study.

Table 3.15: Statistical tests

Tests	Description
Standard deviation	The standard deviation is the square root of the variance, it assists to understanding how spread out the distribution is around the mean (Malhotra, 2015:33). Babin and Zikmund (2016:434) "the estimated coefficient indicating the strength of relationship between an independent variable and dependent variable expressed on a standardised scale where higher absolute values indicate stronger relationship (range is from -1t o +1)".
Frequency of distribution	It is usually shown on a chart or Table, presenting the number of times a particular variable occurs (Babin & Zikmund, 2016:363)
Mean	The mean is used to estimate the average of the data collected using ratio and interval scale (Malhotra, 2015:332).
Kurtosis and skewness	The curve produced by the frequency distribution measures kurtosis through observing the peakedness or flatness of the curve (Malhotra, 2010:488). Skewness is the propensity of values to be more in the high and lows of the x-axis (Malhotra, 2010:488)
Analysis of variation	When comparing two or more groups or populations ANOVA is the appropriate tool, it aims to measure statistical significance (Babin & Zikmund, 2016:427).

3.2.8 Step 8: Preparing and presenting the research report

Preparation and presenting of the research study follow after the evaluation of the data. A written format report or oral presentation can be presented. A brief description of the problem, objectives, research design and findings will be shown with the inclusion of the limitation and recommendations (Babin & Zikmund, 2016:444). The format of the research report should be in such a manner that all the key elements are presented (Malhotra, 2015:399). The research report can be used as a secondary source in the future therefore, a thorough document will need to be compiled.

3.3 Conclusion

The chapter discussed all the steps that were used in the study which were: identifying and defining the research problem/opportunity, developing an approach to the problem, planning the research method, selecting a sampling procedure, collecting the data, evaluating the data, preparing and presenting the research report. It highlights the collection techniques that will be used and the measurements that will be able to gather and analyse the data. A clear research methodology will make it easy for the researcher to achieve satisfactory results for research study.

The study also focused on the sampling plan steps which are: defining the population, identifying the sampling frame, specifying the sampling unit, selecting the sampling technique, determining the sample size, specifying the sampling plan, selecting the sample. These steps help in making sure the right sample is administered and that sample is representative of the whole population. The following chapter will be discussing the data analysis of the research study. Data analysis will be able to provide comprehensive evidence to the study.

CHAPTER 4

DATA ANALYSIS

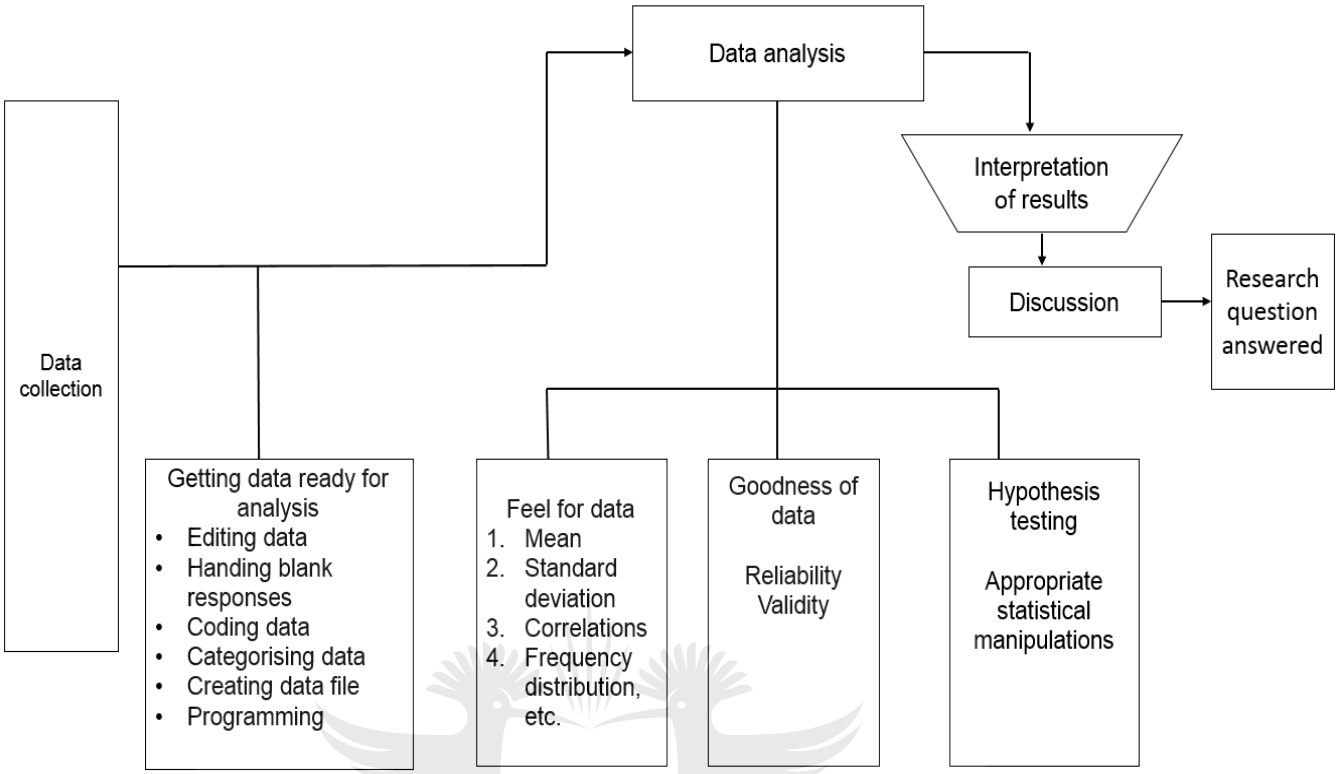
4.1 Introduction

This chapter reports on the findings of step 7, “Evaluating and processing the data” of the research process (Section 3.2.7, p. 72). While chapter 3 discussed the steps of the research process and how the evaluation and analysis process are planned, this chapter reports on the results and interprets the results obtained.

The research objectives and research hypotheses will be addressed, followed by the realisation rate, screening questions, the demographic information of respondents, and the descriptive statistics for the factors of the proposed model, influencing student engagement, the factor analysis, the reliability of the measurement instrument, comparisons between demographic variables and intervening variables, structural equation modeling, the measurement of objectives, the acceptance or rejection of the formulated hypothesis, the final empirical model and lastly the conclusion.

The two main statistical scientific analysis methods employed in this study are factor analysis and structural equation modeling. The two methods will present how students perceive the UJ Facebook page using customer engagement factors. The relationship to be analysed is between the independent variables (perceived ease of use, capability, perceived playfulness and critical mass), the intervening variables (perceived usefulness and intention to use), the moderate variable (trustworthiness) and the dependent variable (actual use/students engagement). The figure 4.1 below presents data analysis components that will be used in the study. The data collection and the preparation of data for analysis have been discussed in chapter 3 (see Section 3.2.6, p. 59).

Figure 4.1: Flow diagram of data analysis process



Source: Adopted from Sekaran (2003:301).

4.2 Research objectives and research hypotheses

As discussed in chapter one (refer to 1.6, p. 15) and in chapter three (refer to Section 3.2.2.1, p. 47), the primary objective for the research study is:

To determine the factors that influence student engagement with the UJ Facebook page.

4.2.1 The identified secondary objectives are:

- To provide a demographic profile of UJ students taking part in the study.
- To determine the Facebook patronage habits of UJ students taking part in the study.
- To empirically measure the factors that influence student engagement with the UJ Facebook page.
- To measure the extent to which UJ students engage with the UJ Facebook page.

- To determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page.

4.2.2 Hypotheses

The hypotheses for the study were discussed in chapter one (refer to Section 1.6, p. 15) and chapter three (refer to Section 3.2.2.3, p. 48).

H_{a1}: Perceived ease of use (EU) of the Facebook site is not positively related to Perceived usefulness (PU).

H_1: Perceived ease of use (EU) of the Facebook site is positively related to Perceived usefulness (PU).

H_{a2}: Critical Mass (CM) of the Facebook user is not positively related to Perceived usefulness (PU).

H_2: Critical Mass (CM) of the Facebook user is positively related to Perceived usefulness (PU).

H_{a3}: Capability (CP) of the Facebook site is not positively related to the Perceived usefulness (PU).

H_3: Capability (CP) of the Facebook site is positively related to the Perceived usefulness (PU).

H_{a4}: Perceived playfulness (PP) of the Facebook site for its user is not positively related to the Perceived usefulness (PU).

H_4: Perceived playfulness (PP) of the Facebook site for its user is positively related to the Perceived usefulness (PU).

H_{a5}: Perceived usefulness (PU) of the Facebook site is not positively related to the Intention to use (IU) the Facebook site.

H_5: Perceived usefulness (PU) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

H_{a6}: Intention to use (IU) the Facebook site is not positively related to the Actual use (AU) of the Facebook site.

H_6: Intention to use (IU) the Facebook site is positively related to the Actual use (AU) of the Facebook site.

H_{a7}: Trustworthiness (TW) of the Facebook site is not positively related to the Intention to use (IU) the Facebook site.

H_7: Trustworthiness (TW) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

The sections to follow will be discussing these hypotheses and the results of the finding will be discussed in this chapter.

4.3 Realisation rate

Primary data was collected from the sample, specifically the sampling units who were the Faculty of Management's third year students. A quota sampling technique was employed where 600 third year students completed questionnaires, however 399 students indicated that they have used or visited the UJ Facebook before and therefore only these respondents' questionnaires could be used for analysis. The realisation rate is thus 66.5% and depicted in detail in Table 4.1. As previously discussed in chapter 3 (Section 3.2.5.4.1, p. 57) these respondents, were third year students who represented the eight departments of the Faculty of Management. Table 4.1 illustrates the sampling units (departments) and number of sampling elements (third year students), who completed the questionnaire and how many questionnaires could have been used for data analysis.

Table 4.1: Realisation rate

Name of the department (sampling units)	Overall number of who completed the questionnaire	Number of qualified respondents
Applied information systems	40	26
Business management	80	74
Information and knowledge	75	41
Industrial psychology and people management	60	37
Public management and government	104	80
Transport and supply chain management	100	57
Tourism management and development	66	34
Marketing management	75	50
	600	399
Realisation rate	100%	66.5%

4.4 Screening question

The target population of the study was third year students in the eight departments of the Faculty of Management (refer to appendix 3) who had visited the UJ Facebook page before. The respondents were to select either 'yes' or 'no' to the screening question. Only respondents who selected 'yes' that they have visited the UJ Facebook before were included for further analysis. Depending on the respondents selected answers, follow up questions as indicated in Table 20 were presented to determine the reasons behind their answer.

Table 4.2: Screening question

				Frequency	Percentage
1	Do you have a Facebook page	Valid	Yes	369	92.5%
			No	29	7.3%
			Total	398	99.7%
2	Have you ever visited the UJ Facebook page?	Valid	Yes	399	100%
			No	0	0.00%
			Total	399	100%

Of the 399 respondents who indicated that they have visited the UJ Facebook page before 369 students also have their own Facebook page and 29 of these respondents do not have their own Facebook page. This shows that regardless of not having a personal Facebook account students still visit the UJ Facebook page. A follow up open ended question was asked to determine the reasons to why students visited the page and when last they visited the page. The answers of the respondents were grouped in the Table 4.3 below:

Table 4.3: Screening question Q2.1a

Q2.1a If you have answered YES, you have visited the UJ Facebook page before; please state: (a) the reasons that made you visit the UJ Facebook page?		
Reasons	Number of respondents	Percentage
A friend recommendation	19	5%
Curiosity	57	14%
Academic purposes	116	29%
Bursary update	31	8%
General university update	91	23%
Entertainment	42	11%
Job opportunities	3	1%
Others	28	7%
Missing data	12	3%
Total	399	100%

According to Table 4.3, the four main categories that motivated respondents to visit the UJ Facebook page are for: academic purposes (29%), general university information (23%), curiosity (14%) and entertainment (11%). This indicates that the main reason for students visiting the UJ Facebook page is for academic purposes; therefore, students want a platform that they can quickly access information from. The second reason for visiting the UJ Facebook page is for general university updates, which are also closely related to academic purposes because both categories provide students with academic information.

The next 'follow-up' question to the screening question was to determine when last respondents visited the UJ Facebook page, as illustrated in Table 4.4.

Table 4.4: Screening question Q2.1b

Q2.1b When last did you visit the UJ Facebook page?		
	Frequency	Percent
Yesterday	52	13.0
Last week	75	18.8
Last month	78	19.5
Two months ago	91	22.8
Other	75	18.8
Missing data	28	7.0
Total	399	100

As presented in the Table 4.4, of the 399 respondents 22.8% visited the UJ Facebook page 2 months ago, while 19.5% visited this page last month, 18.8% last week, 13% yesterday and 18.8% indicated 'other'. Lastly 7% omitted the question.

4.5 Demographics information of respondents

The demographic profile of respondents was sifted to include only those respondents who said 'yes', they have visited the UJ Facebook before. The results of the demographics are tabulated in Table 4.5 below, reporting on gender, the type of degree respondents are enrolled for, their age, language, and 'fan page' related information.

Table 4.5: Demographics information of respondents

	Items	Description	Frequency	Percentage
Valid	Gender	Male	117	44.6%
		Female	220	55.4%
		Total	397	100%
Valid	Degree	BCom law	1	0.3%
		Business information technology	26	6.5%
		Development studies	14	3.5%
		Education	1	0.3%
		Food and beverage operations	11	2.8%
		Human resource management	27	6.7%
		Industrial psychology	37	9.3%
		Information and knowledge management	41	10.3%
		International relations	1	0.3%
		Intrapreneurial management	8	2.0%
		Logistics management	36	9.0%
		Marketing management	50	12.5%
		Politics	4	1.0%
		Public management and governance	80	20%
		Tourism management	34	8.5%
		Transport economics	21	5.3%
		Humanities	7	1.7%
		Total	399	100%
	Age	19	5	1.3%
		20	36	9.2%
		21	90	22.9%
		22	110	28%
		23	75	19.1%
		24	40	10.2%
		25	21	5.3%
		26	10	2.5%
		27	4	1.0%
		28	1	0.3%
		54	1	0.3%
		Total	393	100.0%
Valid	Language	Afrikaans	5	1.3%
		English	57	14.4%
		Xhosa	33	8.3%
		Zulu	102	25.8%
		Sotho	32	8.1%
		Northern Sotho	22	5.6%
		Tswana	40	10.1%
		Venda	29	7.3%
		Tsonga	24	6.1%
		Swazi	21	5.3%
		Ndebele	19	4.8%
		Other (specify please)	16	4.0%
		Total	400	101.0%
Valid	How many friends do you have on your Facebook page?	1-50	24	6.2%
		51-100	35	9.1%
		101-150	33	8.5%
		151-250	39	10.1%

		+251	165	42.7%
		Don't know	90	23.3%
		Total	386	100%
Valid	How many fan pages and groups do you belong to?	1-5	172	55.8%
		6-10	53	17.2%
		11-14	21	6.8%
		15+	62	20.1%
		Total	308	100%
	A7a. Regarding the fan page(s) and/or group page(s) you belong to, please indicate: Which fan page(s) and/or group page(s) you visit the most?	Celebrities	22	5.5%
		Series	14	3.5%
		UJ entertainment Facebook pages	78	19.5%
		Sports	26	6.5%
		Church	6	1.5%
		Cars	11	2.8%
		Music	5	1.3%
		Educational	9	2.3%
		Fashion	15	3.8%
		Inspirational/ motivational	3	0.8%
		Entertainment	64	16.0%
		Others	20	5.0%
		Missing	126	31.6%
		Total	399	100%
	A7B Regarding the fan page(s) and/or group page(s) you belong to, please indicate: Why do you visit these specific pages?	I am a fan	9	2.3%
		For entertainment	127	31.8%
		To receive update	48	12.0%
		For educational purposes	15	3.8%
		Church related	5	1.3%
		For information	9	2.3%
		Life style	20	5.0%
		Other	17	4.3%
		Missing data	149	37.3%
		Total	399	100%

Female respondents represented the majority of the participants in the study (55.4%), followed by male (44.4%) respondents. The Public management and governance degree (20%) had the highest number of respondents, followed by Marketing (12.5%), Information and knowledge management (10.3%), Industrial psychology (9.3%), Logistics management (9%), Tourism management (8.5%),Human resources (6.7%), Business information technology (6.5%), Transport economics (5.3%), Development studies (3.5%), Food and beverage operations (2.8%), Intrapreneurial Management (2%), Humanities (1.7%), Politics (1%), International relations (0.3%), Education (0.3%) and BCom law (0.3%), . BCom law, education and international relations were among the lowest degrees that participated, (see appendix 3).

The average age of respondents who participated in the study, was 22 (mean = 22.35). Table 4.5, further illustrates that the most respondents were between the ages 21(22.9%), 22(28%) and 23(19.1), which is indicative of a student's age in their third year. Interestingly, 1.3% of students reported that they are 19 years of age, which is very unlikely in your third year, so they are probably students who attended lectures with their boyfriend/girlfriend.

Table 4.5 further portrays that most respondents are Zulu speaking (25.8%), followed by English (14.4%), Tswana (10.1%), Xhosa (8.3%), Sotho (8.1%), Venda (7.3%), Tsonga (6.1%), Northern Sotho (5.6%), Swazi (5.3%), Ndebele (4.8%), other (4.0%) and Afrikaans (1.3%). Brand South Africa (2017) reported that the 2011 census presented that isiZulu was the highest mother tongue in South Africa with 27% followed by isiXhosa (16%), Afrikaans (13.5%), English (9.6%), Setswana (8%) and Sesotho (7.6%). Comparing the percentage at UJ and South African census 2011 percentage statistics it is clear that the UJ statistics are somewhat representative of South Africans' home language.

The majority of respondents (42.7%) answered to having more than 251 friends on their own Facebook pages. A fair number of students admitted to not knowing (23.3%) how many friends they have, this could because the study was taken during class time and the students were not permitted to take out their phones and check the number of friends they have on their Facebook page.

The majority of the respondents (55.8%) admitted to having between 1-5 fan and group pages on their accounts, followed by 20.1% of the respondents who admitted to having 15+ fan and group pages on their account, 17.2% of the respondents admitted to having fan and group pages between 6-10 and lastly 6.8% of the respondents admitted to having between 11-14 fan and group pages as presented in Table 4.5.

According to Table 4.5 the fan and group pages that the respondents visit the most is UJ entertainment Facebook pages (19.5%), followed by sports entertainment (16%), sports (6.5%), celebrities (5.5%), others (5%), fashion (3.8%), series (3.5%), cars (2.8%),educational (2.3%), church (1.5%), music(1.3), inspirational/motivational (0.8%). The missing data amounted to 31.6%. This demonstrate that if the UJ

Facebook page wants to achieve high engagement volumes on their Facebook page they should have entertaining information on the page.

According to Table 4.5 the reasons why the students visit the fan and group pages are for entertainment (31.8%), to receive update (12%), lifestyle (5%),other (4.3%), for educational purposes (3.8%), I am a fan (2.3%), for information (2.3%), church related(1,3%). The missing data amount to 37.3%. This demonstrates that students visit the UJ Facebook for entertainment and to be informed.

4.6 Descriptive statistics for the factors influencing students' engagement

This section of the chapter presents the independent variables (perceived ease of use (EU), capability (CP), perceived playfulness (PP) and critical mass (CM)), the intervening variables (perceived usefulness (PU) and intention to use (IU)), the moderate variable (trustworthiness (TW)) and the dependent variable (actual use (AU)/students engagement).

4.6.1 Perceived ease of use (EU)

Perceived ease of use has five scale items presented on a five-point Likert scale. The five scale items were adopted from Rauniar's study (2014), where 1 indicates strongly agree and 5 strongly disagree. Respondents were instructed to think about the UJ Facebook page while they answered the questionnaire. Table 4.6, below presents the mean and standard deviation of perceived ease of use for each item.

Table 4.6: Descriptive statistics for perceived ease of use

	B1. Perceived ease of use (EU)	Mean	Standard deviation
B1.1	The UJ Facebook page is flexible to interact with	3.43	1.050
B1.2	I find it easy to get the UJ Facebook page to do what I want it to do	3.29	1.100
B1.3	It is easy to become skilful at using the UJ Facebook page	3.31	1.123
B1.4	I find the UJ Facebook page easy to use	3.60	1.054
B1.5	Interaction with the UJ Facebook page is clear and understandable	3.56	1.071
	Overall results for perceived ease of use	3.44	1.0796

The mean for EU ranged between 3.29 and 3.60 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the EU is 3.44. This demonstrates that respondents nudge more towards agreeing that the UJ Facebook page is easy to use, if 3 is considered the middle or average. 'I find the UJ Facebook page easy to use'

(mean = 3.60; standard deviation has the highest mean of all the items (see Table 4.6), and 'I find it easy to get the UJ Facebook page to do what I want it to do' (mean = 3.29; standard deviation = 1.100) has the lowest mean. The result indicates that although respondents find the UJ Facebook page easy to use, that they can interact with the Facebook page, but probably not as much as they want to do. Standard deviations ranged between 1.050 and 1.100, indicating some, but minimal variance, where the average is 1.07 for the entire scale it indicates that there is consistency in the results.

Main finding 1: The majority of the respondents perceived the UJ Facebook page easy to use (overall mean = 3.44 and standard deviation = 1.0796).

Main finding 2: The respondents indicated that the item with the highest level of agreement is 'I find the UJ Facebook page easy to use' (mean = 3.60 and standard deviation = 1.054).

Main finding 3: The respondents indicated that the item with the lowest level of agreement is 2 'I find it easy to get the UJ Facebook page to do what I want it to do' (mean = 3.29 and standard deviation = 1.100). Although lower compared with other statements, respondents are still in agreement that they can interact with the UJ Facebook page.

4.6.2 Perceived usefulness (PU)

Perceived usefulness has five items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and 5 strongly disagree Table 4.7. below will be presenting the mean and standard deviation of PU of each item.

Table 4.7: Descriptive statistics for perceived usefulness

	B2. Perceived usefulness (PU)	Mean	Standard deviation
B2.1	Using the UJ Facebook page enables me to get re-connected with people that matter to me	3.00	1.170
B2.2	I find the UJ Facebook page useful in my student life	3.19	1.132
B2.3	Using the UJ Facebook page enhances my effectiveness to stay in touch with others	3.06	1.134
B2.4	Using the UJ Facebook page makes it easier to stay in touch	3.13	1.148
B2.5	Using the UJ Facebook page makes it easier to stay informed about the university	3.58	1.147

	Overall results for perceived usefulness	3.192	1.146

The mean for PU ranged between 3.00 and 3.58 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the PU is 3.192. This demonstrates that most respondents are neutral to the usefulness of the UJ Facebook page, they neither agree nor really disagree, but are in the middle with their opinions. 'Using the UJ Facebook page makes it easier to stay informed about the university' (mean = 3.58; standard deviation = 1.147) has the highest mean of all the items (see Table 4.7) and 'Using the UJ Facebook page enables me to get re-connected with people that matter to me' (mean = 3.00; standard deviation = 1.170) has the lowest mean. The result indicates that although respondents find the UJ Facebook page useful, but probably not as much as they want to do. Standard deviations ranged between 1.132 and 1.170) indicating some, but minimal variance, where the average is 1.146, for the entire scale it indicates that there is consistency in the results.

Main finding 4: The majority of the respondents perceive the UJ Facebook page to be somewhat useful (mean = 3.192 and standard deviation = 1.146). They do not really agree or disagree but are neutral.

Main finding 5: The respondents indicated that the item with the highest level of agreement is 'Using the UJ Facebook page makes it easier to stay informed about the university' (mean = 3.58 and standard deviation = 1.147). This finding corresponds with the open-ended question that respondents use the UJ Facebook page to stay informed about the university.

Main finding 6: The respondents indicated that the item with the lowest level of agreement is 'Using the UJ Facebook page enables me to get re-connected with people that matter to me' (mean = 3.00 and standard deviation = 1.170)

4.6.3 Critical mass (CM)

Critical mass has three items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and 5 strongly disagree Table 4.8. below will be presenting the mean and standard deviation of CM of each item.

Table 4.8: Descriptive statistics for critical mass

	B3. Critical mass (CM)	Mean	Standard deviation
B3.1	The UJ Facebook page is popular among my friends	3.03	1.278
B3.2	A good number of my friends have visited the UJ Facebook page	3.18	1.219
B3.3	People from my class (my fellow students) are on the UJ Facebook page	3.26	1.153
	Overall results for critical mass	3.16	1.22

The mean for CM ranged between 3.03 and 3.26 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the CM is 3.16 (standard deviation = 1.22). This demonstrates that students' opinions are in the middle, they neither agree nor disagree. The lowest critical mass item is 'The UJ Facebook page is popular among my friends' with mean average of 3.03 and standard deviation of 1.278. The highest critical mass item is 'people from my class (my fellow students) are on the UJ Facebook page' with a mean of 3.26 and standard deviation of 1.153. This could be student's influence each other to do things, hence it being the higher mean in B3.3 compared to B3.1.Standard deviations ranged between 1.153 and 1.278, the average result of CM is 1.22, this displays that there is consistency in the results.

Main finding 7: The majority of students neither really agree nor disagree that the UJ Facebook page has critical mass (mean = 3.16 and standard deviation = 1.22).

Main finding 8: The respondents indicated that the item with the lowest level of agreement is 'The UJ Facebook page is popular among my friends' (mean = 3.03; standard deviation = 1.278). It is probably a page they do not share amongst each other much.

Main finding 9: The respondents indicated that the item with the highest level of agreement is 'People from my class (my fellow students) are on the UJ Facebook page' (mean = 3.26; standard deviation = 1.153).

4.6.4 Capability (CP)

Capability has three items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and

5 strongly disagree Table 4.9. below will be presenting the mean and standard deviation of CP of each item.

Table 4.9: Descriptive statistics for Capability

	B4. Capability (CP)	Mean	Standard deviation
B4.1	The UJ Facebook page provides clear instructions for posting	3.19	1.178
B4.2	Images and videos can be easily downloaded or uploaded on the UJ Facebook page	3.29	1.125
B4.3	Applications and capabilities of the UJ Facebook page meet my social networking needs	3.22	1.119
	Overall results for capability	3.23	1.140

The mean for CP ranged between 3.19 and 3.29 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the PU is 3.23. This demonstrates that most respondents are neutral to the usefulness of the UJ Facebook page, they neither agree nor really disagree, but are in the middle with their opinions. 'Images and videos can be easily downloaded or uploaded on the UJ Facebook page' (mean = 3.29; standard deviation = 1.125) has the highest mean of all the items (see Table 4.9) and 'The UJ Facebook page provides clear instructions for posting' (mean = 3.19; standard deviation = 1.178) has the lowest mean. The result indicates that respondents find the UJ Facebook page competent, that they can use the Facebook page, but probably not as much as they want. Standard deviations ranged between 1.119 and 1.178) indicating some, but minimal variance, where the average is 1.140, for the entire scale it indicates that there is consistency in the results.

Main finding 10: The majority of respondents somewhat agrees that the UJ Facebook page is capable to do what it is supposed to do. (Overall mean = 3.23; standard deviation = 1.140).

Main finding 11: The majority of respondents agree that images and videos can easily be downloaded or uploaded on the UJ Facebook page (mean 3.29; standard deviation 1.125).

Main finding 12: Although the majority of respondents agree that the UJ Facebook page provides clear instructions for postings, it still received the lowest agreements of all the capability statements (mean 3.19; standard deviation 1.178).

4.6.5 Perceived playfulness (PP)

Perceived playfulness has four items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and 5 strongly disagree Table 4.10. below will be presenting the mean and standard deviation of PP of each item.

Table 4.10: Descriptive statistics for perceived playfulness

	B5. Perceived playfulness (PP)	Mean	Standard deviation
PP1	For a social networking website, the UJ Facebook page features and application are not delightful-delightful.	3.48	1.090
PP2	For a social networking website, the UJ Facebook page features and application are dull-exciting.	3.30	1.108
PP3	For a social networking website, the UJ Facebook page features and application are not thrilling-thrilling.	3.29	1.116
PP4	For a social networking website, the UJ Facebook page features and application are not fun- fun.	3.47	1.182
	Overall results for perceived playfulness	3.385	1.124

The mean for PP ranged between 3.29 and 3.48 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the PU is 3.39. This demonstrates that most respondents are neutral to the usefulness of the UJ Facebook page, they neither agree nor really disagree, but are in the middle with their opinions. 'For a social networking website, the UJ Facebook page features and application are not delightful-delightful' (mean = 3.48; standard deviation = 1.090) has the highest mean of all the items (see Table 4.10) and 'For a social networking website, the UJ Facebook page features and application are not thrilling-thrilling' (mean = 3.29; standard deviation = 1.116) has the lowest mean. The result indicates that respondents find the UJ Facebook page playful, but probably not as much as they want to do. Standard deviations ranged between 1.090and 1.182) indicating some, but minimal variance, where the average is 1.124, for the entire scale it indicates that there is consistency in the results.

Main finding 13: Overall respondents perceive the UJ Facebook page to playful (mean = 3.385, standard deviation = 1.124).

Main finding 14: Although respondents agreed that the UJ Facebook page features are not thrilling-thrilling, it received the lowest agreement compared to the other statements (mean = 3.29, standard deviation = 1.116).

Main finding 15: Respondents agreed that 'For a social networking website, the UJ Facebook page features and application are not delightful-delightful, thus that it is more thrilling than delightful' (mean = 3.48; standard deviation = 1.090).

4.6.6 Trustworthiness (TW)

Trustworthiness has four items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and 5 strongly disagree Table 4.11. below will be presenting the mean and standard deviation of TW of each item.

Table 4.11: Descriptive statistics for trustworthiness

	B6. Trustworthiness	Mean	Standard deviation
B6.1	I trust the UJ Facebook page's information	3.40	1.192
B6.2	The UJ Facebook page provides security for my postings	3.30	1.099
B6.3	The UJ Facebook page provides security for my profile	3.21	1.082
B6.4	I feel safe in my posting with the UJ Facebook page	3.26	1.167
	Overall results for trustworthiness	3.29	1.135

The mean for TW ranged between 3.21 and 3.41 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the TW is 3.39. This demonstrates that most respondents are neutral to the usefulness of the UJ Facebook page; they neither agree nor really disagree. 'I trust the UJ Facebook page's information' (mean = 3.40; standard deviation = 1.192) has the highest mean of all the items (see Table 4.11) and 'The UJ Facebook page provides security for my profile' (mean = 3.21; standard deviation = 1.082) has the lowest mean. The result indicates that respondents find the UJ Facebook page trustworthy, but probably not as much as they want to do. Standard deviations ranged between 1.082and 1.192) indicating some, but minimal variance, where the average is 1.135, for the entire scale it indicate that there is consistency in the results.

Main finding 16: Overall respondents perceive the UJ Facebook page to be trustworthy (mean = 3.29; standard deviation 1.135).

Main finding 17: Respondents mostly agreed with the statement that they trust the UJ Facebook page's information (mean = 3.40; standard deviation = 1.192). This finding corresponds with the open-ended questions' findings where respondents indicated one of the most influential reasons for visiting the UJ Facebook page is for updated information. Thus, there is probably trust otherwise the Facebook page will not be visited for updated information about the university and all its activities and events.

Main finding 18: Although respondents agreed that the UJ Facebook page provides security for their profiles, it received the lowest level of agreement compared to the other statements regarding trust (mean = 3.21; standard deviation = 1.082).

4.6.7 Intention to use (IU)

Intention to use has three items that were measured using a five-point Likert scale adopted from Rauniar et al. (2014). The scale is anchored as 1 presenting strongly agree and 5 strongly disagree Table 4.12. below will be presenting the mean and standard deviation of IU of each item.

Table 4.12: Descriptive statistics for intention to use

	B7. Intention to use (IU)	Mean	Standard deviation
B7.1	I intend to use the UJ Facebook page for communicating with others	2.85	1.208
B7.2	I intend to use the UJ Facebook page to get reconnected with people that matter to me	2.84	1.244
B7.3	I will continue to use the UJ Facebook page for social networking	3.00	1.218
	Overall results for intention to use	2.89	1.22

The mean for IU ranged between 2.84 and 3.00 (1 = strongly disagree and 5 = strongly agree) and the overall mean of the TW is 2.89. This demonstrates that most respondents are neutral to the usefulness of the UJ Facebook page, they neither agree nor really disagree, but are in the middle with their opinions. 'I will continue to use the UJ Facebook page for social networking' (mean = 3.00; standard deviation = 1.218) has the highest mean of all the items (see Table 4.12) and 'I intend to use the UJ

Facebook page to get reconnected with people that matter to me' (mean = 2.84; standard deviation = 1.244) has the lowest mean. The result indicates that respondents will use the UJ Facebook page, but probably not as much as they want to do. Standard deviations ranged between 1.208 and 1.244) indicating some, but minimal variance, where the average is 1.22, for the entire scale that there is consistency in the results.

Main finding 19: Overall respondents disagree that they intent to use the UJ Facebook site again mean (mean = 2.89; standard deviation = 1.22).

Main finding 20: Respondents neither agreed nor disagreed that they will continue to use the UJ Facebook page for social networking (mean = 3; standard deviation = 1.218).

Main finding 21: Respondents point out that the lowest level of agreement was seen in this item 'I intend to use the UJ Facebook page to get reconnected with people that matter to me' (mean = 2.84; standard deviation = 1.244)

4.6.8 Actual use (AU)

Actual use has two items that were measured using two different scales adopted from Rauniar et al. (2014). Table 4.11. below will be presenting the mean and standard deviation of TW of each item.

Table 4.13a: Descriptive statistics for actual use

Actual use		
	AU1 How often per week do you visit the UJ Facebook page?	AU2 On average how many hours and minutes per week do you visit the UJ Facebook page?
N	392	383
Mean	2.83	118.0183
Median	3.00	45.0000
Minimum	Never	0.00
Maximum	Very often	1830.00
Std. Deviation	1.112	207.67856

Table 4.13b: Descriptive statistics for actual use

	B8. Actual use	Mean	Standard deviation
B8.1	How often **per week** do you visit the UJ Facebook page?	2.83	1.112
B8.2	On average how many hours and minutes per week do you visit the UJ Facebook page?	118.018	207.678
	Overall results for actual use	60.424	104.395

Tables 4.13a and b, present the mean and deviation for actual use. Question B8.2 was converted into minutes hence the large numbers shown in Table 4.13. This is the due to the fact that different scales were used for the items in B8. This in turn increased the overall mean and standard deviation to 60.424 and 104.395, respectively.

Main finding 22: The overall mean usage for the UJ Facebook page is 60.424 and the standard deviation is 104.395.

Main finding 23: Respondents point out that the highest mean (118.018) is seen in this item 'On average how many hours and minutes per week do you visit the UJ Facebook page?' and the lowest mean (2.83) is shown in 'How often per week do you visit the UJ Facebook page'

4.7 The overall mean and standard deviation scores

The standard deviation and mean for the factors of perceived ease of use, perceived usefulness, critical mass, capability, perceived playfulness, trustworthiness, intention to use and actual use as presented in Table 4.14. As each of these overall means has already been discussed above between sections 4.6.1 and 4.6.8 only the overall results will be discussed.

Table 4.14: The overall mean and standard deviation scores

	Overall mean and standard deviation scores	Mean	Standard deviation
B1	Perceived ease of use	**3.44**	1.0796
B2	Perceived usefulness	3.192	1.146
B3	Critical mass	3.16	1.22
B4	Capability	3.23	1.140
B5	Perceived playfulness	3.385	1.124
B6	Trustworthiness	3.29	1.135
B7	Intention to use	**2.89**	1.22

According to the Table 4.14 the perceived ease of use (EU) has the highest mean score level of all the factors, and intention to use (IU) the lowest mean level of agreement.

Main finding 24: Respondents have the highest level of agreement with the factor, perceived ease of use, indicating that they find the UJ Facebook page easy to use. (mean = 3.44; standard deviation = 1.0796).

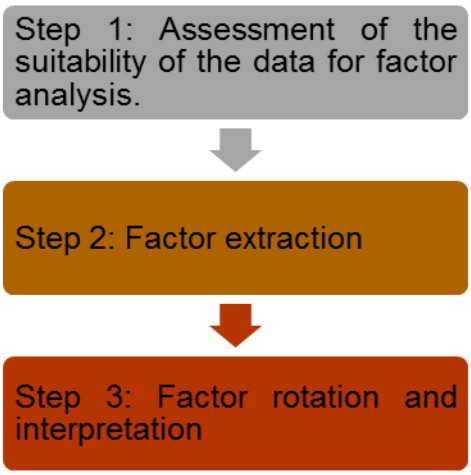
Main finding 25: Respondents leaned more towards disagreeing that they intent to use the UJ Facebook page, although the result is very close to neutral (mean is 2.89; standard deviation = 1.22).

The next section will be discussing the factor analysis of the research study.

4.8 Factor analysis

Factor analysis assists in testing hypotheses and provides information to whether one group is significantly different from the other groups (Malhotra, Birks & Willis, 2010:774). By utilising SPSS 24 to assist with factor analysis a large set of variables can be reduced to a more manageable number. As stated in chapter 3 section 3.2.7.2 (p. 74), there are two main types of factor analysis which are confirmatory and exploratory factor analysis (EFA). As argued before (chapter 3.2.7.2(p. 74)) (EFA) were used for this study as the scale items or statements were slightly adjusted to suit the study. As explained in Chapter 3 (Section 3.2.7.2, p. 75), there are three steps to follow when conducting factor analysis, namely: "Step 1: Assessment of the suitability of the data for factor analysis. Step 2: Factor extraction and Step 3: Factor rotation and interpretation" Pallant (2007).

Figure 4.2: Steps of factor analysis.



4.8.1 Factor analysis for the independent variables: perceived ease of use (EU), critical mass (CM), capability (CP) and perceived playfulness (PP).

The section below discusses the suitability of data for factor analysis for all the following factors: the independent variables (perceived ease of use, critical mass, capability and perceived playfulness), the two intervening variables (perceived usefulness and intention to use); and the dependent variable (actual use/student engagement). There is also a moderate variable (trustworthiness) potential path to a dependent variable (intention to use).

4.8.1.1 Step 1: Assessment of the suitability of the data for factor analysis.

There two important issues to consider when assessing whether factor analysis is suitable for the research study. The first is the sample size of the research study, the larger the sample size the better it is to obtain a good correlation coefficiency. The sample size of the study is 399 respondents which is an adequate number to undergo factor analysis. The second issue is the strength of the intercorrelations among the items. In order to measure the strength of the intercorrelations two tests are done which are the Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO).

According to Malhotra et al. (2010:776), the Bartlett's test is used to test the hypotheses that the variables are uncorrelated in the population. In other words each variable correlates with itself or doesn't correlate. The Bartlett's test needs to be less than 0.5 for it to be significant. The KMO ranges between 0 and 1 (Malhotra, 2010:638). The KMO needs to be closer to 1 in order to explain how variable the factors are, a KMO of 0.6 is still acceptable but a KMO of less than 0.6 is unacceptable (Williams, Onsman & Brown, 2010:5).

Table 4.15: Independent variable perceived ease of use (EU), critical mass (CM), capability (CP) and perceived playfulness (PP) KMO and Bartlett's test results.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.904
Bartlett's Test of Sphericity	Approx. Chi-Square	2626.007
	df	105
	Sig.	0.000

The KMO of 0.904, table 4.15 indicates that the factor analysis is adequate and appropriate to support factorability of the Correlation Matrix. This is a result of the

Bartlett's test to be above 0.6 and the p-value of Sig. is less than 0.05 (Malhotra, 2010:640; Pallant, 2007:196).

4.8.1.2 Step 2: Factor extraction

Factor extraction is used to determine the least number of factors that can represent interrelations between the set of variables. The approaches that can be used to extract the data are the principal components, principal factor and image factoring, the generalized least squares, unweighted squares, alpha factoring and maximum likelihood factoring (Costello & Osborne, 2005:2).

The extraction method used in the study is the principal component analysis (PCA). PCA attempts to yield a reduced amount of linear groupings of the original variables, then components are correlated, sums of squared loadings cannot be added to obtain a total variance (Malhotra, 2010:643).

Table 4.16: Total variance explained of perceived ease of use (EU), critical mass (CM), capability (CP) and perceived playfulness (PP).

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	**6.290**	**41.933**	**41.933**	**6.290**	**41.933**	**41.933**	**4.377**
2	**1.728**	**11.518**	**53.451**	**1.728**	**11.518**	**53.451**	**4.343**
3	**1.154**	**7.693**	**61.143**	**1.154**	**7.693**	**61.143**	**3.851**
4	**1.003**	**6.684**	**67.828**	**1.003**	**6.684**	**67.828**	**3.878**
5	0.624	4.162	71.990				
6	0.588	3.922	75.912				
7	0.544	3.630	79.542				
8	0.513	3.417	82.959				
9	0.486	3.242	86.201				
10	0.415	2.769	88.970				
11	0.393	2.623	91.593				
12	0.350	2.333	93.926				
13	0.323	2.153	96.080				
14	0.302	2.012	98.092				
15	0.286	1.908	100.000				

The 15 items were subjected to PCA using SPSS version 24. Before performing PCA the suitability of data for factor analysis was tested. In Table 4.16 it is evident that four

factor components can be used. This is determined using the Kaiser's criterion also known as the eigenvalue which says that only factors above 1.0 will be retained to be further examined (Malhotra, 2010:643; Aaker, Kumar & Day, 2004:568). The four components (41.933, 53.451, 61.143, and 67.828) in the cumulative % column explain a total of 67.83% of the variance. Using the scree plot diagram (see appendix 6) all four components where retained for further investigation.

4.8.1.3 Step 3: Factor rotation and interpretation

Rotating the factors assists in interpreting the results, it presents the pattern of loadings in a way that is easier to interpret therefore it is not the underlying solution (Malhotra, 2010:644; Aaker, 2004:567). Rotate to get sharper distinction between factors, no need to rotate if the factors are interpretable. The rotation method used in this study is the Oblimin with Kaiser normalisation and the extraction method is the principal component analysis.

Table 4.17: Perceived ease of use, critical mass, capability and perceived playfulness pattern matrix.

Pattern Matrix[a]				
	Component			
	1	2	3	4
PP2 For a social networking website, the UJ Facebook page features and application are:	0.871	0.039	0.069	-0.009
PP3 For a social networking website, the UJ Facebook page features and application are:	0.828	0.035	-0.117	-0.102
PP4 For a social networking website, the UJ Facebook page features and application are:	0.795	-0.026	-0.068	0.021
PP1 For a social networking website, the UJ Facebook page features and application are:	0.767	-0.016	0.020	0.121
EU2 I find it easy to get the UJ Facebook page to do what I want it to do	-0.062	0.808	-0.064	-0.069
EU4 I find the UJ Facebook page easy to use	0.013	0.758	-0.003	0.056
EU5 Interaction with the UJ Facebook page is clear and understandable	0.046	0.748	-0.058	-0.017
EU3 It is easy to become skilful at using the UJ Facebook page	0.099	0.746	0.178	0.097
EU1 The UJ Facebook page is flexible to interact with	-0.021	0.670	-0.195	0.053

CM3 People from my class (my fellow students) are on the UJ Facebook page	0.000	0.075	-0.816	0.017
CM1 The UJ Facebook page is popular among my friends	0.048	0.019	-0.797	0.095
CM2 A good number of my friends have visited the UJ Facebook page	0.103	0.033	-0.783	0.017
CP2 Images and videos can be easily downloaded or uploaded on the UJ Facebook page	-0.059	0.118	0.032	0.797
CP3 Applications and capabilities of the UJ Facebook page meet my social networking needs	0.022	-0.102	-0.216	0.771
CP1 The UJ Facebook page provides clear instructions for posting	0.103	0.047	0.047	0.770

Using the pattern matrix the researcher is able to see the loading of each variable in a much easier format. Looking at the pattern matrix the highest loading items can be easily determined. Observing component 1, it is clear that the highest loadings are seen in pp2, pp3, pp4 and pp1 which is the factor perceived playfulness. Component 2, shows that the highest loading are at EU2, EU4, EU5, EU3 and EU1 which is the factor perceived ease of use. Component 3, highest loadings are at CM3, CM1 and CM2, which is the factor critical mass, but the loadings are negative meaning the students strongly disagree with these variables. And lastly component 4, highest loadings are on cp2, cp3, and cp1 which is factor capability.

Main finding 26: Perceived playfulness' statements were grouped together to create one factor.

Main finding 27: Perceived ease of use's statements were grouped together to create one factor.

Main finding 28: Critical mass' statements were grouped together to create one factor

Main finding 29: Capability's statements were grouped together to create one factor.

The last section analyses the independent factors perceived ease of use, critical mass, capability and perceived playfulness. The next section will be discussing the intervening variable (perceived usefulness).

4.8.2 Factor analysis: perceived usefulness

Perceived usefulness factor analysis will be analysed in the section below as an intervening variable.

4.8.2.1 Step1: Assessment of the suitability of the data for factor analysis.

Perceived usefulness was conducted to assess the suitability of the factor analysis before being analysed. Reverse scoring was evaluated using SPSS Component matrix.

Table 4.18: Perceived usefulness KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.827
Bartlett's Test of Sphericity	Approx. Chi-Square	768.680
	Df	10
	Sig.	0.000

The KMO value is 0.827 which is acceptable and the Bartlett's test is 0.000, therefore factor analysis is appropriate for this factor (Willams et al., 2010:5).

4.8.2.2 Step 2: Factor extraction

Factor extraction is used to reduce the number of factors that can used to better present the interrelations among variables. The Table 4.19 below illustrates the total variance that can be used for this factor.

Table 4.19: Perceived usefulness total variance

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**3.042**	**60.848**	**60.848**	**3.042**	**60.848**	**60.848**
2	0.760	15.198	76.046			
3	0.467	9.330	85.376			
4	0.395	7.908	93.284			
5	0.336	6.716	100.000			

The perceived usefulness five factor items were grouped together in order to produce effective testing results. As mentioned in Section 4.8.1.1 (p. 99), the eigenvalue rule or Kaiser's criterion is the best way to determine the factors to retain. As presented in the Table 36 only one factor can be used for perceived usefulness. The initial cumulative variance before rotation is 60.848% and the factor is not further rotated due to the fact that it is one factor.

Main finding 30: Perceived usefulness was accepted to undergo factor analysis.

Main finding 31: Items used for perceived usefulness were grouped together and the result was it is effective to use the five items to measure perceived usefulness.

The previous section was discussing the intervening variable (perceived usefulness). The following section will be discussing the moderate variable (trustworthiness).

4.8.3 Factor analysis: Trustworthiness

Trustworthiness factor analysis will be analysed in the section below as a moderate variable.

4.8.3.1 Step1: Assessment of the suitability of the data for factor analysis.

Trustworthiness was conducted to assess the suitability of the factor analysis before being analysed. Reverse scoring was evaluated using SPSS Component matrix.

Table 4.20: Trustworthiness KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.808
Bartlett's Test of Sphericity	Approx. Chi-Square	677.343
	df	6
	Sig.	0.000

The KMO is good at 0.808 and the significance is below 0.05 which makes trustworthiness to be eligible to undergo factor analysis.

4.8.3.2 Step 2: Factor extraction

Factor extraction is used to reduce the number of factors that can used to better present the interrelations among variables. Table 4.21 below illustrates the total variance that can be used for this factor.

Table 4.21: Trustworthiness total variance

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2.742**	**68.547**	**68.547**	**2.742**	**68.547**	**68.547**
2	0.584	14.593	83.141			
3	0.366	9.147	92.288			
4	0.308	7.712	100.000			

The trustworthiness four factor items were grouped together in order produce effective testing results. As mentioned in Section 4.8.1.1 (p. 99), the eigenvalue rule or Kaiser's criterion is the best way to determine the factors to retain. As presented in the Table 4.21 only one factor can be used for trustworthiness. The initial cumulative variance before rotation is 68.547% and the factor is not further rotated due to the fact that it is one factor.

Main finding 32: Trustworthiness was accepted to undergo factor analysis.

Main finding 33: Items used for trustworthiness were grouped together and the result was it is effective to use the five items to measure trustworthiness.

The previous section was discussing the moderate variable (trustworthiness). The following section will be discussing (intervening variable) intention use.

4.8.4 Factor analysis: intention to use

In this section 'Intention to use' will be analysed. As mentioned in section 4.8.1 (p. 97) 'intention to use' is an intervening variable analysing the variable is significant.

4.8.4.1 Step1: Assessment of the suitability of the data for factor analysis.

'Intention to use' was conducted to assess the suitability of the factor analysis before being analysed. Reverse scoring was evaluated using SPSS Component matrix.

Table 4.22: Intention to use KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.729
Bartlett's Test of Sphericity	Approx. Chi-Square	498.224
	df	3
	Sig.	0.000

4.8.4.2 Step 2: Factor extraction

Factor extraction is used reduce the number of factors that can be used to better present the interrelations among variables. Table 4.23 below illustrates the total variance that can be used for this factor.

Table 4.23: The total variance for Intention to use

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**2.296**	**76.528**	**76.528**	**2.296**	**76.528**	**76.528**
2	0.375	12.484	89.012			
3	0.330	10.988	100.000			

The intention to use factor items (3) were grouped together in order produce effective testing results. As mentioned in Section 4.8.1.1 (p. 99), the eigenvalue rule or Kaiser's criterion is the best way to determine the factors to retain. As presented in the Table 4.23 only one factor can be used for intention to use. The initial cumulative variance before rotation is 76.528% and the factor is not further rotated.

Main finding 34: Intention to use was accepted to undergo factor analysis

Main finding 35: Items used for intention to use were grouped together and the result was it is effective to use the five items to measure intention to use.

The previous section was discussing (intervening variable) intention use. The following section will be discussing the reliability of the measuring instrument.

4.9 Reliability of the measurement instrument

Reliability of the constructs or factors can be measured using the Cronbach's alpha. In order to confirm the consistency of each construct numbers were used to represent how strong the construct is 0.00 to 1.0, where 0.00 represents that zero consistency exist, the closer the number is to zero the less reliable the scale is (William et at. 2010:6). 1 represents how strong the scale measurement is and the closer a number is to zero the more reliable the scale is. As mentioned in Section 1.5.1 (p. 13) the model has been used before, although in a different situation it is still possible that it will display high levels of consistency.

Table 4.24: Cronbach's alpha

Construct		Cronbach's Alpha
Independent variables	Perceived ease of use	0.836
	Capability	0.764
	Critical mass	0.832
	Perceived playfulness	0.853
Intervening variable	Perceived usefulness	0.837
	Intention to use	0.847
Moderating variable	Trustworthiness	0.843

As presented in Table 4.24, all the constructs are closer to 1, this therefore means that the measuring instrument is reliable and will be able to provide sufficient results for the study.

Main finding 36: The results of the Cronbach's alpha coefficients for the seven factors indicate that the factors to influence customer engagement with the UJ Facebook page are reliable to use for further analysis.

The previous section was discussing the reliability of the measurement instrument. The following section will be comparing the factors with the screening question.

4.10 Comparisons between factors and the screening question.

The section will be analysing the factors and answers that were provided by the respondents during answering the screening question. The screening question to be analysed is 'Have you ever visited the UJ Facebook page?

Table 4.25: Comparisons between factors and the screening question.

Factor	Mean	Standard deviation
Perceived ease of use (PU)	3.4382	0.83774
Critical mass (CM)	3.1546	1.05372
Capability (CP)	3.2318	0.93884
Perceived playfulness (PP)	3.3882	0.94055
Perceived usefulness (PU)	3.1910	0.89157
Trustworthiness (TW)	3.2920	0.93657
Intention use (IU)	2.8970	1.07003

Table 4.25 presents the mean average of the factors against the screening question 'Have you ever visited the UJ Facebook page? PU achieved the highest mean average and intention to use average the lowest mean average. This demonstrates that although the respondents perceived the UJ Facebook page to be easy to use they do not have high intentions on continuing to use the Facebook page.

Main finding 37: A comparison between the screening question 'Have you ever visited the UJ Facebook page' and the factors (PU, CM, CP, PP, PU, TW AND IU) demonstrates that PU has the highest mean. (mean = 3.4382; standard deviation = 0.83774).

Main finding 38: A comparison between the screening question 'Have you ever visited the UJ Facebook page?' and the factors (PU, CM, CP, PP, PU, TW AND IU) demonstrates that IU has the lowest mean. (mean = 2.8970; standard deviation = 1.07003).

Main finding 39: The UJ Facebook page will need to increase the CM, CP, PP, PU, and TW of the page in order to retain and increase IU which will result in high customer engagement /actual use of the Facebook page.

The previous section was discussing the comparisons between the factors and the screening question. The following section will be discussing the structural equation modelling to determine the possible relationships between constructs.

4.11 Structural equation modeling

In this section the factor variables will be analysed to understand the relationship between the variables. As mentioned in chapter three section 3.2.7.2(p. 75) the

relationships of the independent variables (EU, CM, CP, PP), intervening variables (PU, IU), moderating variable (TW) and dependent variable (AU) will be addressed.

4.11.1 Distribution of results

Determining if the 29 statements are normally distributed is important before hypotheses are statistically analysed. It is not vital to measure distribution of the findings if the sample size is greater than (30) (i.e. 399 respondents in this sample who indicated that they have previously visited the UJ Facebook) (Eiselen, Uys & Potgieter, 2007:79). Nonetheless, the skewness and kurtosis for every statement is seen in Section B as presented in Table 4.26.

Table 4.26: A summary of the factors skewness and kurtosis.

Item	Skewness	Kurtosis
EU1 The UJ Facebook page is flexible to interact with	-0.1472	-0.4476
EU2 I find it easy to get the UJ Facebook page to do what I want it to do	-0.1625	-0.6693
EU3 It is easy to become skillful at using the UJ Facebook page	-0.1687	-0.7177
EU4 I find the UJ Facebook page easy to use	-0.3199	-0.5744
EU5 Interaction with the UJ Facebook page is clear and understandable	-0.3250	-0.5892
CM1 The UJ Facebook page is popular among my friends	-0.0975	-1.0080
CM2 A good number of my friends have visited the UJ Facebook page	-0.1465	-0.8617
CM3 People from my class (my fellow students) are on the UJ Facebook page	-0.0823	-0.7903
CP1 The UJ Facebook page provides clear instructions for posting	-0.0213	-0.8104
CP2 Images and videos can be easily downloaded or uploaded on the UJ Facebook page	-0.1222	-0.6556
CP3 Applications and capabilities of the UJ Facebook page meet my social networking needs	-0.1454	-0.6054
PP1 For a social networking website, the UJ Facebook page features and application are: not delight - delightful	-0.3874	-0.4160
PP2 For a social networking website, the UJ Facebook page features and application are: dull - exciting	-0.2525	-0.5099
PP3 For a social networking website, the UJ Facebook page features and application are: not thrilling - thrilling	-0.1048	-0.6665
PP4 For a social networking website, the UJ Facebook page features and application are: not fun - fun	-0.3460	-0.7194
PU1 Using the UJ Facebook page enables me to get re-connected with people that matter to me	-0.0802	-0.7197

PU2 I find the UJ Facebook page useful in my student life	-0.1186	-0.7367
PU3 Using the UJ Facebook page enhances my effectiveness to stay in touch with others	-0.1023	-0.6756
PU4 Using the UJ Facebook page makes it easier to stay in touch	-0.1413	-0.6924
PU5 Using the UJ Facebook page makes it easier to stay informed about the university	-0.4630	-0.5818
TW1 I trust the UJ Facebook page's information	-0.2175	-0.9031
TW2 The UJ Facebook page provides security for my postings	-0.0173	-0.7453
TW3 The UJ Facebook page provides security for my profile	-0.1575	-0.5364
TW4 I feel safe in my posting with the UJ Facebook page	-0.0758	-0.7978
IU1 I intend to use the UJ Facebook page for communicating with others	0.0504	-0.8032
IU2 I intend to use the UJ Facebook page to get reconnected with people that matter to me	0.0453	-0.8953
IU3 I will continue to use the UJ Facebook page for social networking	-0.0538	-0.8241
AU1 How often per week **do you visit the UJ Facebook page?**	0.3182	-0.4672
AU2 On average how many hours and minutes per week **do you visit the UJ Facebook page?**	4.0209	21.1762

The outcomes indicate that only one statement (statement AU2) has a skewness of more than two, yet all the other statements have a skewness of less than two, meaning that 28 out of 29 statements are normally distributed (West, Finch & Curran, 1995:74). Also, only one statement has a kurtosis of less than seven (statement AU2) and the remaining 28 statements have a kurtosis of less than seven, indicating that the 28 statements are normally distributed (West et al., 1995:74).

Mostly researchers believe that a certain level of skewness of the outcomes of the statements should be either positively skewed or negative skewed. Therefore for the purposes study of the statements were retained.

4.11.2: Fit indices for the model

The data was computed using the maximum likelihood estimate to better validate the analysis. The maximum likelihood estimates the unknown parameters in the model (Watkins, 2011:182; Kashin, 2014:2). Maximum likelihood provides unbiased and efficient information (Watkins, 2011:182). The estimates of the unknown value will converge on the true values in the population measurement items. In order to test the

model for validity the measuring items were loaded on the corresponding constructs. Table 4.27 below presents the indices of the model indicating whether the association values are an acceptable fit or unacceptable fit.

Table 4.27: Fit indices for the model.

Fit indices	Study	Recommended values	Decision
Bentler-bonett (NFI)	0.896	≥0.90	Acceptable fit
Bentler-bonett (NNFI)	0.951	≥0.90	Acceptable fit
Comparative fit (fit index (CFI)	0.957	≥0.90	Acceptable fit
Root mean-square error of approximation (RMSEA)	0.040	0.05	Acceptable fit
Probability value for the chi-square statistic is	0.0000	$p < 0.05$; $p < 0.01$	Acceptable fit

According Schumacker and Lomax (2010:76) the Bentler-Bonett Index or Normed Fit Index (NFI) fitness test model value should be between 0.90 and 0.95 to be considered an acceptable fit and the number below 0.9 is considered a poor fit/unacceptable fit. As it is presented in Table 4.27 the Bentler-Bonett Index or Normed Fit Index (NFI) is 0.896 which estimates to 0.9 therefore showing that the model is a good fit (Kenny, 2015; Bentler & Bonett, 1980). Rauniar et al. (2013:21) believe that the Tucker Lewis Index or Non-normed Fit Index (NNFI) and comparative fit index (CFI) also need to above 0.9 for the model to be considered an acceptable fit. Table 4.27 indicates that the NNFI and the CFA are above 0.9 which is good. Lastly the root mean square error of approximation (RMSEA) needs to be measured and it needs to be below 0.08 to be acceptable; and for this study it shows that the RMSEA is 0.046 which is good (Browne & Cudeck, 1993). Therefore the structure model is acceptable to undergo SEM as presented Table 4.27.

Using the maximum likelihood solution also known as the normal distribution theory a standardized solution for each item was possible to be calculated, Table 4.28 below shows the r-square for each item. R-square measures how close the data are fitted onto the regression line (Frost, 2013). Another name for r-squared is coefficient of determination.

Table 4.28: Maximum Likelihood solution: standardized solution

Item	R-squared
EU1 The UJ Facebook page is flexible to interact with	0.548
EU2 I find it easy to get the UJ Facebook page to do what I want it to do	0.465
EU3 It is easy to become skillful at using the UJ Facebook page	0.479
EU4 I find the UJ Facebook page easy to use	0.523
EU5 Interaction with the UJ Facebook page is clear and understandable	0.503
CM1 The UJ Facebook page is popular among my friends	0.702
CM2 A good number of my friends have visited the UJ Facebook page	0.592
CM3 People from my class (my fellow students) are on the UJ Facebook page	0.579
CP1 The UJ Facebook page provides clear instructions for posting	0.539
CP2 Images and videos can be easily downloaded or uploaded on the UJ Facebook page	0.443
CP3 Applications and capabilities of the UJ Facebook page meet my social networking needs	0.569
PP1 For a social networking website, the UJ Facebook page features and application are: not delight -delightful	0.559
PP2 For a social networking website, the UJ Facebook page features and application are: dull -exciting	0.596
PP3 For a social networking website, the UJ Facebook page features and application are: not thrilling -thrilling	0.641
PP4 For a social networking website, the UJ Facebook page features and application are: not fun -fun	0.587
PU1 Using the UJ Facebook page enables me to get re-connected with people that matter to me	0.466
PU2 I find the UJ Facebook page useful in my student life	0.513
PU3 Using the UJ Facebook page enhances my effectiveness to stay in touch with others	0.602
PU4 Using the UJ Facebook page makes it easier to stay in touch	0.614
PU5 Using the UJ Facebook page makes it easier to stay informed about the university	0.368
TW1 I trust the UJ Facebook page's information	0.373
TW2 The UJ Facebook page provides security for my postings	0.682
TW3 The UJ Facebook page provides security for my profile	0.639
TW4 I feel safe in my posting with the UJ Facebook page	0.659
IU1 I intend to use the UJ Facebook page for communicating with others	0.656
IU2 I intend to use the UJ Facebook page to get reconnected with people that matter to me	0.651

IU3 I will continue to use the UJ Facebook page for social networking	0.629
AU1 How often per week **do you visit the UJ Facebook page?**	0.828
AU2 On average how many hours and minutes per week **do you visit the UJ Facebook page?**	0.281

Table 4.29 demonstrates how strongly each item contributes to a factor.

Main finding 40: Table 4.27 presents that using SEM the NFI of the study is 0.896, the NNFI is 0.951, the CFI is 0.957, RMSEA is 0.040, the chi-square is 588.567, df is 1.634 and p-value is 0.000. These values demonstrate that the model is good.

Main finding 41: Observing Table 4.28 on the perceived ease of use factor it is clear that EU1 (0.548) is a stronger item compared to EU2 (0.465). Detecting on critical mass CM1 (0.702) has a much stronger contribution compared to CM3 (0.579). Detecting on capability factor it is clear that CP3 (0.569) has a stronger contribution compared to CP2 (0.443). Detecting on the perceived playfulness factor it is clear that PP3 (0.641) has a stronger contribution compared to PP1 (0.559). Detecting on perceived playfulness factor it is clear that PU3 (0.614) has a stronger contribution compared to PP5 (0.368). Detecting one the trustworthiness factor it is clear that TW2 (0.682) has a stronger contribution compared to TW1 (0.373). Detecting on the 'intention to use' factor it is clear that IU1 (0.656) has a stronger relationship compared to IU2 (0.629). Detecting on the 'actual use' factor it is clear that AU1 (0.828) has a stronger contribution compared to AU2 (0.281).

4.11.2. Standardised paths

According to Suhr, 2006:4, there are three categories of the standardised path which are 0.10 = small effect, 0.30 = medium effect and > 0.50 which indicate large effect. Table 4.29 presents the standardised coefficient paths.

Table 4.29: Standardised paths coefficient

Dimension	Significant paths	Standard path coefficient	Size of direct effect
1→5	**Perceived ease of use→ Perceived usefulness**	**0.550**	**Large**
2→5	**Critical mass→ perceived usefulness**	**0.452**	**Medium**
3→5	**Capability→ perceived usefulness**	**0.207**	**small**
4→5	**Perceived playfulness→ Perceived usefulness**	**0.207**	**small**
5→7	**Perceived usefulness→ intention to use**	**0.586**	**large**
6→7	**Trustworthiness → intention to use**	**0.244**	**small**
7→8	**Intention to use→ student engagement/ actual use**	**0.534**	**large**

According to Table 4.29 there are three paths with a large direct effect which are between perceived ease of use and perceive usefulness, perceived usefulness and intention to use; and intention to use and student engagement. A medium direct effect is shown between critical mass and perceived usefulness. Small direct effects are presented between capability and perceived usefulness, perceived playfulness and perceived usefulness; and trustworthiness and intention to use**.**

4.12 Measurement of objectives

4.12.1 The main objective of the study is:

To determine the factors (perceived ease of use, critical mass, capability, perceived playfulness, perceived usefulness, trustworthiness and intention to use) that influence student engagement with the UJ Facebook page.

In order to determine the factors that influence student engagement with the UJ Facebook page, factor analysis was conducted to reduce the statements into manageable factors and structure equation modelling (SEM) was administered to the study to measure the influence that one independent variable has on the intervening and dependent variable(s) (section 4.8 and section 4.11). These sections provide that perceived ease of use (0.550), critical mass (0.452), capability (0.207), perceived playfulness (0.207), perceived usefulness (0.586), trustworthiness (0.244), intention to use (0.534) influence student engagement.

4.12.2 The secondary objectives were formulated from the main object of the study and are discussed below.

4.12.2.1 To provide a demographic profile of UJ students taking part in the study.

The demographic information of the UJ respondents comprised of the gender, direction of study (degree students are enrolled for) age, home language, as well as information relating to the number of friends they have on Facebook and the number of fan pages they visit and belong. This information assisted in gathering the demographic profile of the respondents who took part in study. Section 4.5, Table 4.5 presents the demographic results collected during the data collection.

4.12.2.2 To determine the Facebook patronage habits of UJ students taking part in the study.

In order to determine the Facebook patronage habits of the UJ students the reasons to why the students visit the UJ Facebook, when last the students visited the UJ Facebook page and reasons why students have never been on the UJ Facebook page are important. According to Table 4.3, students visit the UJ Facebook page for academic purposes (29%), followed by general university updates (23%), curiosity (14%), entertainment (11%), bursary updates (8%), others (7%), a friend recommended them to visit the page (5%), missing data (3%) and job opportunities (1%). Table 4.4 presents that the majority of respondents visited the page two months ago (22%), followed by last month (19.5%), last week (18,8%), others (18,8%), yesterday (13%), missing data (7%), lastly student did not visit the UJ Facebook page because they are not aware of the pages existence.

4.12.2.3 To empirically measure the factors (perceived ease of use, critical mass, capability, perceived usefulness, perceived playfulness, perceived usefulness, trustworthiness, intention to use) that influence student engagement with the UJ Facebook page.

Observing from Section 4.7, Table 4.14 each factor was empirically measured according to how the respondents perceive the UJ Facebook page. Perceived ease of use had an average mean of 3.44. This demonstrates that the majority of the respondents perceived UJ's Facebook page easy to use. Perceived usefulness had an average mean of 3.192, critical mass had an average of 3.16, both demonstrating that the students are neutral towards the usefulness and the importance of critical mass of the UJ Facebook page. Capability had a mean average of 3.23, perceived playfulness had a mean average of 3.385, and trustworthiness had an average mean

of 3.29, all demonstrating that the respondents agree with these factors relating to the UJ Facebook page. Intention to use was below average which raises concerns for the page in the future, as to whether the page can keep engagement going and growing in the future.

4.12.2.4 To measure the extent to which UJ students engage with the UJ Facebook page.

In order to measure the extent to which the UJ students engage with the UJ Facebook page two factors need to be discussed which are intention to use and actual use. Observing from Table 4.12 it is evident that students intend on continuing to use the UJ Facebook page to social network with other student and had a mean average of 3.00 and the respondents also use the UJ Facebook page for communicating with others and had a mean average of 2.85. The statistics on Tables 4.13a and 4.13b presents that students visit the UJ Facebook page on weekly on a mean average of 2.83 and on average the number of hours and minutes spend on the UJ Facebook page mean average is 118.0183. This presents that actual use and intention to use are on a similar average,

4.12.2.5 To determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page.

Observing Figure 4.3 it is very clear that the factors: perceived ease of use, critical mass, capability, perceived usefulness, perceived playfulness, perceived usefulness, trustworthiness and intention to use influence students' engagement with the UJ Facebook page. Some of these factors have smaller direct effect compared to others. When all the independent factors are calculated 76% of the factors are represented which is good. The coefficient determinate between the intervening variables is 0.571 which is also good, although the coefficient determinate between student engagement is low (r^2=0.285) this doesn't mean the factors do not influence student engagement, however just that the influence is less compared to other factors.

A questionnaire was administered to the respondents in order to measure the objective of the study. Section A of the study allowed the respondents to provide the demographic information about themselves. This section was able to address the first and second question of the secondary objective which is 'to provide a demographic profile of UJ students taking part in the study' and 'to determine the Facebook

patronage habits of UJ students taking part in the study' (refer to section 4.4, p. 81). Section B of the study presented the student engagement factors. This section was able to address the first main objective of the study 'determine the factors that influence student engagement with the UJ Facebook page' (refer to Section 4.3, p. 81) and the secondary objectives 'to empirically measure the factors that influence student engagement with the UJ Facebook page (refer section 4.8) 'to measure the extent to which UJ students engage with the UJ Facebook page' (refer to Section 4.8 and Section 4.14) 'to determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page' (refer to Section 4.14, p. 117).

4.13 Acceptance or rejection of the formulated hypothesis

The formulated hypothesis have been presented earlier in the chapter (refer to Section 4.2.2, p. 80). The null hypotheses were formulated as:

H_{a1}: Perceived ease of use (EU) of the Facebook site is not positively related to Perceived usefulness (PU).

H_{a2}: Critical Mass (CM) of the Facebook user is not positively related to Perceived usefulness (PU).

H_{a3}: Capability (CP) of the Facebook site is not positively related to the Perceived usefulness (PU).

H_{a4}: Perceived playfulness (PP) of the Facebook site for its user is not positively related to the Perceived usefulness (PU).

H_{a5}: Perceived usefulness (PU) of the Facebook site is not positively related to the Intention to use (IU) the Facebook site.

H_{a6}: Intention to use (IU) the Facebook site is not positively related to the Actual use (AU) of the Facebook site

H_{a7}: Trustworthiness (TW) of the Facebook site is not positively related to the Intention to use (IU) the Facebook site.

Based on the main finding from Figure 4.3 and Table 4.29 the following hypotheses are accepted.

H_1: Perceived ease of use (EU) of the Facebook site is positively related to Perceived usefulness (PU).

H_2: Critical Mass (CM) of the Facebook user is positively related to Perceived usefulness (PU).

H_3: Capability (CP) of the Facebook site is positively related to the Perceived usefulness (PU).

H_4: Perceived playfulness (PP) of the Facebook site for its user is positively related to the Perceived usefulness (PU).

H_5: Perceived usefulness (PU) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

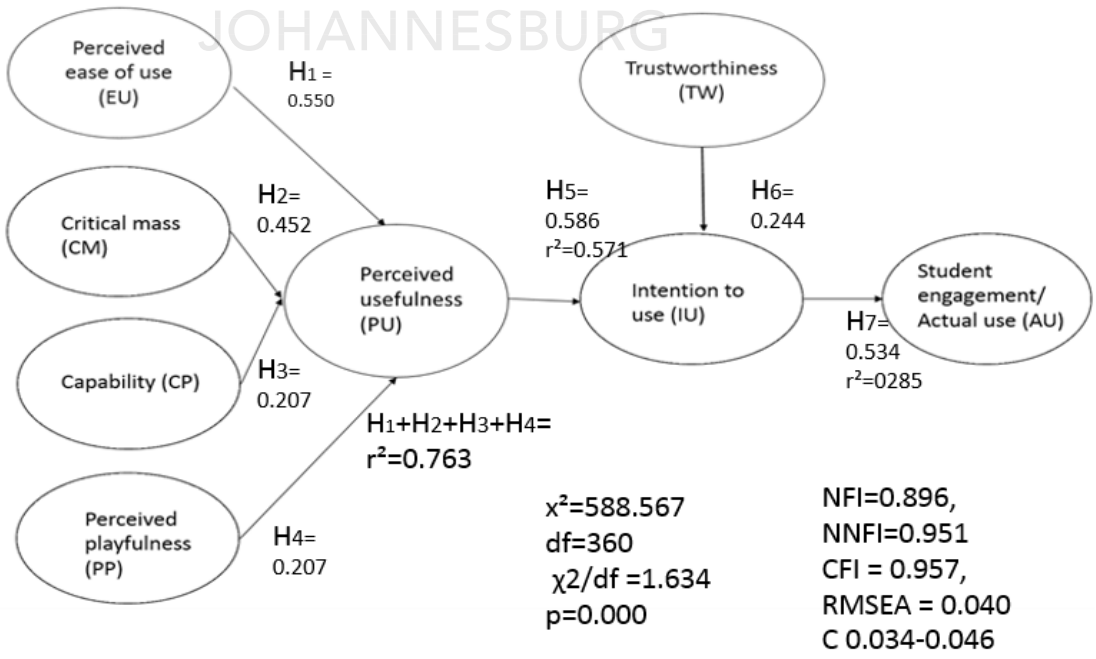
H_6: Intention to use (IU) the Facebook site is positively related to the Actual use (AU) of the Facebook site.

H_7: Trustworthiness (TW) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

4.14 Summary of findings

This section provides a summary of the main findings revealed during the research study. Figure 4.3 will assist in illustrating the findings and which will be further explained in the sections to follow.

Figure 4.3: Results from the structural equation model.



4.14.1 Main findings pertaining to the descriptive results

The main findings are summarised according to the independent variables (perceived ease of use (EU), critical mass (CM), capability (CP), perceived playfulness (PP)), intervening variables (perceived usefulness (PU) and intention to use(IU)), moderate variable (trustworthiness (TW)) and dependent variable (actual use (AU)).

4.14.1.1 Main findings relating to independent variables

Observing Figure 4.3 the results demonstrate that the beta coefficient for the relationship between perceived ease of use and perceived usefulness is 0.150 which is lower than the beta coefficient between critical mass and perceived usefulness which is 0.452. This entails that critical mass has a stronger positive relationship with perceived usefulness than ease of use. Together, perceived ease of use, critical mass, capability and perceived ease of use explain 76.3 (r2=0.763) percent of the variation in perceived usefulness.

4.14.1.2 Main finding relating intervening variables and moderate variable

Perceived usefulness and Trustworthiness are both significantly and positively related to Intention to use (Perceived usefulness more strongly than trustworthiness), explaining 57.1% of the variation in intention to use.

4.14.1.3 Main finding relating intervening variable and dependent variable

Intention to use is significantly positively related to actual use but explains only 28.5 percent of the variation in actual use (other factors not measured in the model will explain the unexplained variation).

4.14.1.4 Main findings pertaining to the structural model

There are significant and positive interrelationships between the independent (perceived ease of use, capability, critical mass, perceived playfulness) variables and the intervening variables (perceived usefulness and intention to use).

There are significant and positive interrelationships between the intervening (perceived usefulness and intention to use) variables, moderate variable (trustworthiness) and the dependent variables (actual use).

4.14.1.5 Main finding relating to Hypotheses testing

Based on the main finding from Figure 4.3 and Table 4.29 the following hypotheses present that:

H1: Perceived ease of use (EU) of the Facebook site is positively related to Perceived usefulness (PU).

H2: Critical Mass (CM) of the Facebook user is positively related to Perceived usefulness (PU).

H3: Capability (CP) of the Facebook site is positively related to the Perceived usefulness (PU).

H4: Perceived playfulness (PP) of the Facebook site for its user is positively related to the Perceived usefulness (PU).

H5: Perceived usefulness (PU) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

H6: Intention to use (IU) the Facebook site is positively related to the Actual use (AU) of the Facebook site.

H7: Trustworthiness (TW) of the Facebook site is positively related to the Intention to use (IU) the Facebook site.

4.15 Conclusion

An in depth discussion of the data analysis was provided in this chapter. The data analysed was further interpreted in detail throughout the chapter. The main finding of the chapter demonstrated that perceived ease of use, critical mass, capability, playfulness are indeed independent variables that have a strong relationship with perceived usefulness. In addition that there is a strong relationship between perceived usefulness and ‘intention to use’. Furthermore trustworthiness the moderate variable seemed to not have such a huge impact towards intention to use and lastly there is a strong relationship between intention to use and student engagement.

Therefore universities can use this model to determine how their social media platforms can have a higher level of engagement.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a conclusion of the study undertaken of the factors that influence students' engagement with the Facebook page of the University of Johannesburg. The findings have been reported in detail in chapter four. The theoretical and managerial implications will be presented, as well as the recommendations for future studies will be made.

5.2 Overview of the study

Chapter one provided the background to the study and a brief literature review of Higher Education (HE). Furthermore, social media marketing, specifically using Facebook as a platform was introduced and customer engagement factors were briefly presented. Chapter two provided an in-depth discussion regarding HE, Facebook as a social media platform and customer engagement. Chapter three provided the methodology for the study and a framework. Section 3.2.2.3 (p. 48) illustrates the relationship(s) relating to the factors influencing student engagement with the UJ Facebook page. Chapter four presented the descriptive results as well as the Factor Analysis and the Structural Equation Modelling results. Chapter five will provide the conclusion of the primary and secondary objectives of the study.

5.3 Conclusions and recommendations as per secondary objectives

This section addresses the conclusions and recommendations drawn from each secondary objective throughout the research study, at the end of the objectives suggested recommendations will also be addressed.

5.3.1 Secondary objective 1

> To provide a demographic profile of UJ students taking part in the study.

The demographics of the study describes the students' profile and provide a bit more detail to who were participating in the study. Babin and Zikmund (2016:271) consider concepts such as sex, age, language and so forth as concepts of demographic values.

The demographics of the study is presented in Table 4.5 which are gender, education, age, language, number of Facebook friends, number of fan and group pages followed, fan and group pages visited the most and the reasons why students visit these pages.

Table 4.5 presents that in the gender demographic females participated more than males, the degrees that participated the most in the study are public management and governance and marketing, the average age that participated was between the age of 21 and 23, the home languages with the most students were Zulu and English. The majority of the students have more than +251 friends on their Facebook account. The highest number of fan and group pages the students belonged to is more or less 1-5. UJ entertainment Facebook pages and sports entertainment are the fan and group pages that students mostly visit. The reason why they mostly visit these pages are for entertainment and to receive updates and information about those specific page.

Recommendation 1: It is evident that students between the ages of 21 and 23 are 'electronic savvy' and visit fan pages mostly for entertainment, should it be for general humor or sports entertainment, thus UJ has to consider to provide 'entertainment' in its main university Facebook page to make it attractive for students to visit the Facebook page frequently. These students also have a certain language that they speak at university, adopting the language and using it on the UJ Facebook page could add a certain personality to the page.

5.3.2 Secondary objective 2

To determine the Facebook patronage habits of UJ students taking part in the study.

The students use of the UJ Facebook page for academic purposes which consists of information regarding the academic calendar, library times, time table information and any other general 'university life' information such as protests and walks to name but a few areas. Another reason the students visit the UJ Facebook page is for information regarding events such as sports updates, functions taking place within the university and information about available accommodation, second hand books being sold and just to converse with the other fellow students on the page. It is also interesting to note

that students visit the UJ Facebook page for entertainment purposes, to find out what fellow students are doing and ‘comedy’ or ‘humour’ were mentioned as attractions.

Observing Table 4.4, it presents that most of the students visited the UJ Facebook page during the last two months and last week. This shows that students visit the page on a regular basis. The other group of people who had not visited the UJ Facebook was not aware that the university had a Facebook page. This indicates there is little awareness of the university Facebook page from the university’s side.

Recommendation 2: The University can actually use this platform as a way to reach out to students in real time. This means the university can present some events and updates as they are happening. This will increase functionality and importance to the students as this will become a habit for students to constantly view the page early in the morning before coming to classes or in the evening before going to bed, so that they are constantly receiving updates that are beneficial to them. Integration with other social media platforms are also key, for example notifying students on Twitter about an important event or issue and to provide a link to the UJ Facebook page for them to find more information regarding the event or issue.

5.3.3 Secondary objective 3

To empirically measure the factors that influence student engagement with the UJ Facebook page.

The factors that were measured in the study as to what influenced student engagement with the UJ Facebook page were perceived ease of use (EU), critical mass (CM), capability (CP), perceived playfulness (PP), perceived usefulness (PU), trustworthiness (TW) and intention to use as discussed in chapter 1, Section 1.5.1 (12), and chapter 4, section 4.6(87).

According to Table 4.6 in Chapter 4 UJ students found the UJ Facebook mostly easy to use, followed by playful, trustworthy, capable, useful and they perceived the UJ Facebook page to have critical mass. Although UJ students have used the UJ Facebook, they were not certain if they would really use it again (intention to use). It can thus be argued that all the factors, perceived ease of use (EU), critical mass (CM),

capability (CP), perceived playfulness (PP), perceived usefulness (PU) and trustworthiness (TW), influence UJ students' engagement with the UJ Facebook page.

Recommendation 3: Although it is evident that the factors perceived ease of use (EU), critical mass (CM), capability (CP), perceived playfulness (PP), perceived usefulness (PU) and trustworthiness (TW) influence student engagement, UJ students didn't agree strongly about these factors. It is suggested that all these factors should be investigated further to improve on them so that the intention of use will improve too. Other factors should also be considered, i.e. the type of information posted, entertainment value should be promoted and possible integration with other social media platforms.

5.3.4 Secondary objective 4

To measure the extent to which UJ students engage with the UJ Facebook page.

Chapter 2 presented the factors that influence student engagement with the UJ Facebook in section 2.5 (p34). The students' engagement factors are perceived ease of use (EU), critical mass (CM), capability (CP), perceived playfulness (PP), perceived usefulness (PU), trustworthiness (TW) and actual use (AU).

Chapter 4, Table 4.27 presents the student engagement factors using the structural equation modelling results. The items were measured using the maximum likelihood solution. The strength of each item was calculated and most students perceived the UJ Facebook page to be flexible, and believed that the UJ Facebook page is popular among their friends. Students also consider that applications and capabilities of the UJ Facebook page meet their social networking needs and the students also find the UJ Facebook page thrilling. A number of students use the UJ Facebook page to stay in touch with the university. Students feel secure to post on the UJ Facebook page. Students intend to use the UJ Facebook page to communicate with others (peers, the university). Students are always visiting the UJ Facebook page for entertainment and UJ updates; therefore, if the university invests its energy in fulfilling their needs, it could see an increase in the actual use of the UJ Facebook page. Table 4.13b presents that students spend 118 minutes per week on the UJ Facebook page.

Recommendation 4: It is clear from the above information that the UJ students engage with the UJ Facebook page, but it is evident that there is room for improvement. Information and entertainment such as jokes, sports news, and updates about the university should be presented with opportunities to interact and probably co-create. The students could constantly visit the UJ Facebook page if the page provides humor associated posts because a lot of the students are following the other university humor pages such as the UJ humor and UJ memes.

5.3.5 Secondary objective 5

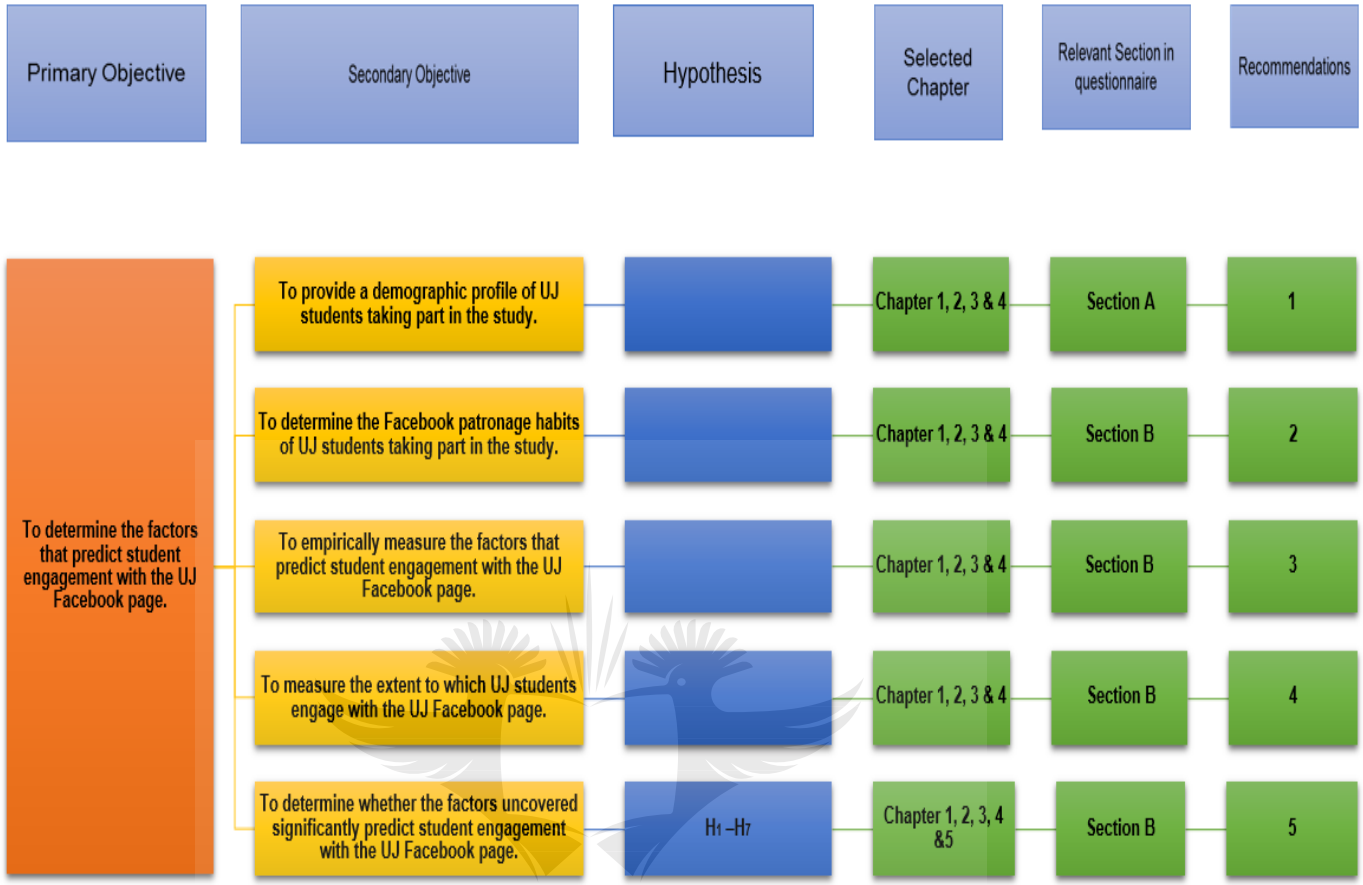
To determine whether the factors uncovered significantly influence student engagement with the UJ Facebook page.

This section will be discussing the factors uncovered (perceived ease of use, critical mass, perceived playfulness, capability, trustworthiness, perceived usefulness and intention to use) that significantly influenced student engagement with the UJ Facebook page.

Using structure equation modelling the factors uncovered indicated significant paths from each independent variable (perceived ease of use, critical mass, capability an intention to use) to the intervening variables (perceived usefulness and intention to use), from the moderating variable (trustworthiness) to intention to use and a significant path from intention to use to actual use (AU). Chapter 4, Table 4.29 presents that the strongest path is between perceived usefulness and intention to use and the weakest path is between capability and perceived usefulness; and perceived playfulness and perceived usefulness.

Recommendation 5: The path between capability and perceived usefulness; and the path between perceived playfulness and perceived usefulness is weak; the university can try to strengthen these paths by making the UJ Facebook page playful, this can be done by increasing the amount of games and therefore making the page more appealing.

Figure 5.1: A summary of the primary and secondary objectives, findings, conclusions and recommendations.



Source: Researcher's own construct

5.4 Limitations and areas for further research

The biggest limitation is that the researcher wasn't able to do the research study at all four campuses, only Auckland Park Kingsway and Auckland Park Bunting were included in research study, Soweto campus and Doornfontein campus were excluded. Therefore, this study cannot be interpreted as a representative of all the students in the Faculty of Management. This was due to budget and time constraints.

Another limitation is that only quantitative research was conducted, and the facilitation of face to face interviews (as an example) could have supplemented the research. Alternative the study was conducted at the UJ Faculty of Management third year students and therefore not representative of the South African students' population hence the findings cannot be generalized.

Further research studies could be conducted using the entire university, or do a comparison between other Faculties and universities could be investigated. This could provide a broader spectrum for the study. Further studies could also use the choice factors as a good supplementary study.

Furthermore additional studies could be conducted on other social media platforms such as twitter, YouTube and Instagram to determine if they produce a similar analysis to what Facebook has provided. Another angle which should also produce interesting results is comparing the social media platform for example Facebook and twitter to establish if there are similarities.

5.5 Conclusion

One of the most important tools in marketing is customer engagement. Satisfying customers' needs, retaining customers and positive word of mouth are some of the ways that higher education can attract prospective students. Facebook is one of the most popular social media platform tools to encourage customer engagement. Therefore factors influencing student engagement using Facebook are significant.

The aim of the study was to study factors that influence students' engagement with the Facebook page of a (their) selected university, particularly the University of Johannesburg. The independent factors that indicate an influence on student engagement are perceived ease of use, capability, critical mass and perceived ease of use. Two intervening variables were also identified which are perceived usefulness and intention to use, a moderate variable trustworthiness was also added and finally the dependent variable actual use/customer engagement was identified. It was easy to determine the factors that influence student engagement with the UJ Facebook page, because according to the study, these factors were all positively related to one another.

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APPENDICES

Appendix 1: Questionnaire

FACTORS THAT INFLUENCE STUDENT ENGAGEMENT WITH A UNIVERSITY FACEBOOK PAGE

The researcher would like to understand the factors that influence student engagement with the UJ Facebook page.

Your participation in this survey is completely anonymous and voluntary. You are not required to include your name on the questionnaire and you do not have to answer a question if you find it objectionable. Your responses will also be treated as confidential. The questionnaire should not take longer than 10 minutes to complete.

The questionnaire consists of two sections:

Section A: Demographic information.

Section B: Factors influencing customer engagement with a Facebook page

When answering the questions please report on your own experience, opinion and perspectives.

Thank you for taking the time to complete this questionnaire.

If you have any questions relating to this questionnaire contact Nyaradzo Dundu on 082 585 9726

PLEASE INDICATE YOUR ANSWER BY MARKING A CROSS (X) IN THE APPROPRIATE SPACE PROVIDED

	Yes	No
1. Do you have a Facebook page		
2. Have you ever visited the **UJ** Facebook page (go to 2.1 or 2.2 below please)	*	**

2.1. *If you have answered **YES**, **you have visited** the UJ Facebook page before; please state: (a) the reasons that made you visit the UJ Facebook page?_____

_____

_____

____

(b) When last did you visit the UJ Facebook page? (please indicate your answer with a cross (x)

1.Yesterday		2.Last week		3.Last month		4.Two month ago		5.Other (specify)	

2.2. **If you have answered **NO, you have NOT** visited the UJ Facebook page before**;** please state the reasons?

_____
_____
_____
_____

SECTION A: Background information. (Please complete regardless of your answers above)

A1. Indicate your gender

1. Male	1
2. Female	2

A2. What degree are you studying?

_____

A3. How old are you?

_____

A4. Please indicate your home language by marking with a cross (X) below.

1. Afrikaans		
2. English		
3. Xhosa		
4. Zulu		
5. Sotho		
6. Northern Sotho		
7. Tswana		
8. Venda		
9. Tsonga		
10. Swazi		
11. Ndebele		
12. Other (specify please)		

IF YOU DO HAVE YOUR OWN FACEBOOK PAGE, PLEASE ANSWER THE FOLLOWING QUESTIONS Please indicate your answers with a cross (X) below.

A5. How many friends do you have on your Facebook page?

1. 1-50	
2. 51-100	
3. 101-150	
4. 151-250	
5. +251	
6. Don't know	

A6. How many fan pages and groups do you belong to? Please indicate your answer with a cross (X) below.

None (If NONE, go straight Section B please)	

1. 1-5	***
2. 6-10	***
3. 11-14	***
4. 15+	***

A7.***Regarding the fan page(s) and/or group page(s) you belong to, please indicate:

(a) Which fan page(s) and/or group page(s) you visit the most?

_____

_____

(b) Why do you visit these specific pages?

_____

_____

ONLY CONTINUE WITH THE REST OF THE QUESTIONNAIRE IF YOU HAVE VISITED THE UJ FACEBOOK PAGE BEFORE

SECTION B: To what extent do you agree with the following statements regarding your engagement with the UJ Facebook page. Please indicate your answer by marking a cross **(X)** in the appropriate block below where **(1)** indicates that you Strongly **Disagree** and **(5)** Strongly **Agree**.

B1. Perceived ease of use (EU)					
	Strongly disagree				Strongly agree
1. The UJ Facebook page is flexible to interact with	1	2	3	4	5
2. I find it easy to get the UJ Facebook page to do what I want it to do	1	2	3	4	5
3. It is easy to become skillful at using the UJ Facebook page	1	2	3	4	5
4. I find the UJ Facebook page easy to use	1	2	3	4	5
5. Interaction with the UJ Facebook page is clear and understandable	1	2	3	4	5

B2. Perceived usefulness (PU)					
	Strongly disagree				Strongly agree
1. Using the UJ Facebook page enables me to get re-connected with people that matter to me	1	2	3	4	5
2. I find the UJ Facebook page useful in my student life	1	2	3	4	5
3. Using the UJ Facebook page enhances my effectiveness to stay in touch with others	1	2	3	4	5
4. Using the UJ Facebook page makes it easier to stay in touch	1	2	3	4	5
5. Using the UJ Facebook page makes it easier to stay informed about the university	1	2	3	4	5

B3. Critical mass (CM)					
	Strongly disagree				Strongly agree
1. The UJ Facebook page is popular among my friends	1	2	3	4	5

2. A good number of my friends have visited the UJ Facebook page	1	2	3	4	5
3. People from my class (my fellow students) are on the UJ Facebook page	1	2	3	4	5

B4. Capability (CP)					
	Strongly disagree				Strongly agree
1. The UJ Facebook page provides clear instructions for posting	1	2	3	4	5
2. Images and videos can be easily downloaded or uploaded on the UJ Facebook page	1	2	3	4	5
3. Applications and capabilities of the UJ Facebook page meet my social networking needs	1	2	3	4	5

B5. Perceived playfulness (PP)						
For a social networking website, the UJ Facebook page features and application are:						
1. Not delightful	1	2	3	4	5	Delightful
2. Dull	1	2	3	4	5	Exciting
3. Not thrilling	1	2	3	4	5	Thrilling
4. Not fun	1	2	3	4	5	Fun

B6. Trustworthiness (TW)					
	Strongly disagree				Strongly agree
5. I trust the UJ Facebook page's information	1	2	3	4	5
6. The UJ Facebook page provides security for my postings	1	2	3	4	5
7. The UJ Facebook page provides security for my profile	1	2	3	4	5
8. I feel safe in my posting with the UJ Facebook page	1	2	3	4	5

B7. Intention to use (IU)					
	Strongly disagree				Strongly agree
1. I intend to use the UJ Facebook page for communicating with others	1	2	3	4	5
2. I intend to use the UJ Facebook page to get reconnected with people that matter to me	1	2	3	4	5
3. I will continue to use the UJ Facebook page for social networking	1	2	3	4	5

Please indicate your answer by marking a cross (x) at your chosen choice below.

B8. Actual use					
3. How often **per week** do you visit the UJ Facebook page?	1.never	2.rarely	3.sometimes	4.often	5.very often
4. On average how many hours and minutes **per week** do you visit the UJ Facebook page?	hrs minutes				

Appendix 2: 2017 total number of registrations

Headcount					YD - Academic Year
DCD - HEDA Faculty	DCD - HEDA Department Grouping	QD - Post Graduate	QD - Qualification Type	SQD - Period Of Study Code	2017
MANAGEMENT	APPLIED INFORMATION SYSTEMS	P	Bachelor Honours Degree	1	45
				2	13
			Bachelor Honours Degree Total		58
			DOCTORAL DEGREE	1	20
			DOCTORAL DEGREE Total		20
			MASTER'S DEGREE	1	18
			MASTER'S DEGREE Total		18
			Postgraduate Diploma	1	9
				2	16
			Postgraduate Diploma Total		25
		P Total			121
		U	Advanced Diploma	1	65
				2	16

			Advanced Diploma Total		81
			Bachelor's Degree	1	77
				2	53
			Bachelor's Degree Total		130
			Diploma (360)	1	123
				2	123
				3	98
			Diploma (360) Total		344
			GEN OR PROF 1ST B DEGREE 3 YRS	2	3
				3	47
			GEN OR PROF 1ST B DEGREE 3 YRS Total		50
			NATIONAL DIPLOMA	3	1
			NATIONAL DIPLOMA Total		1
		U Total			606
	APPLIED INFORMATION SYSTEMS Total				727
	DEANS OFFICE: MANAGEMENT	U	UNDERGRADUATE OCCASIONAL	1	13
			UNDERGRADUATE OCCASIONAL Total		13
		U Total			13
	DEANS OFFICE: MANAGEMENT Total				13
	DEP OF BUSINESS MANAGEMENT	P	Bachelor Honours Degree	1	64
				2	14

			Bachelor Honours Degree Total		78
			DOCTORAL DEGREE	1	6
			DOCTORAL DEGREE Total		6
			MASTER'S DEGREE	1	49
				2	96
			MASTER'S DEGREE Total		145
		P Total			229
		U	BACCALAUREUS TECHNOLOGY DEGREE	1	99
				2	86
			BACCALAUREUS TECHNOLOGY DEGREE Total		185
			Bachelor's Degree	1	187
			Bachelor's Degree Total		187
			Diploma (360)	1	96
			Diploma (360) Total		96
			GEN OR PROF 1ST B DEGREE 3 YRS	1	17
				2	175
				3	178
				4	27
			GEN OR PROF 1ST B DEGREE 3 YRS Total		397
			NATIONAL DIPLOMA	1	7
				2	137

				3	157
				4	37
			NATIONAL DIPLOMA Total		338
		U Total			1 203
	DEP OF BUSINESS MANAGEMENT Total				1 432
	DEP OF IND PSYCHOLOGY&PEOPLE M	P	Bachelor Honours Degree	1	100
				2	59
			Bachelor Honours Degree Total		159
			DOCTORAL DEGREE	1	36
				2	1
			DOCTORAL DEGREE Total		37
			HONOURS DEGREE	2	1
			HONOURS DEGREE Total		1
			MASTER'S DEGREE	1	53
				2	41
			MASTER'S DEGREE Total		94
		P Total			291
		U	BACCALAUREUS TECHNOLOGY DEGREE	1	58
				2	20
			BACCALAUREUS TECHNOLOGY DEGREE Total		78
			Bachelor's Degree	1	62

				2	82
				3	64
			Bachelor's Degree Total		208
			Diploma (360)	1	148
				2	0
			Diploma (360) Total		148
			GEN OR PROF 1ST B DEGREE 3 YRS	1	182
				2	142
				3	209
			GEN OR PROF 1ST B DEGREE 3 YRS Total		533
			NATIONAL DIPLOMA	1	5
				2	160
				3	153
				4	51
			NATIONAL DIPLOMA Total		369
		U Total			1 336
	DEP OF IND PSYCHOLOGY&PEOPLE M Total				1 627
	DEP OF INFO & KNOWLEDGE MGT	P	Bachelor Honours Degree	1	44
				2	8
			Bachelor Honours Degree Total		52
			DOCTORAL DEGREE	1	5
			DOCTORAL DEGREE Total		5

			MASTER'S DEGREE	1	7
			MASTER'S DEGREE Total		7
		P Total			64
		U	Bachelor's Degree	1	127
				2	107
				3	145
			Bachelor's Degree Total		379
			GEN OR PROF 1ST B DEGREE 3 YRS	3	12
			GEN OR PROF 1ST B DEGREE 3 YRS Total		12
		U Total			391
	DEP OF INFO & KNOWLEDGE MGT Total				455
	DEP OF MARKETING MANAGEMENT	P	Bachelor Honours Degree	1	70
				2	12
			Bachelor Honours Degree Total		82
			DOCTORAL DEGREE	1	3
			DOCTORAL DEGREE Total		3
			MASTER'S DEGREE	1	5
			MASTER'S DEGREE Total		5
		P Total			90
		U	Advanced Diploma	1	14
			Advanced Diploma Total		14

			BACCALAUREUS TECHNOLOGY DEGREE	1	43
			BACCALAUREUS TECHNOLOGY DEGREE Total		43
			Bachelor's Degree	1	74
			Bachelor's Degree Total		74
			Diploma (360)	1	156
			Diploma (360) Total		156
			GEN OR PROF 1ST B DEGREE 3 YRS	1	2
				2	103
				3	152
			GEN OR PROF 1ST B DEGREE 3 YRS Total		257
			NATIONAL DIPLOMA	1	43
				2	153
				3	174
			NATIONAL DIPLOMA Total		370
		U Total			914
	DEP OF MARKETING MANAGEMENT Total				1 004
	DEP OF PUBLIC MANAGEMENT&GOVER	P	Bachelor Honours Degree	1	113
			Bachelor Honours Degree Total		113
			DOCTORAL DEGREE	1	8
				2	6

			DOCTORAL DEGREE Total		14
			MASTER'S DEGREE	1	13
				2	3
			MASTER'S DEGREE Total		16
		P Total			143
		U	Bachelor's Degree	1	243
				2	1
			Bachelor's Degree Total		244
			GEN OR PROF 1ST B DEGREE 3 YRS	1	11
				2	325
				3	453
			GEN OR PROF 1ST B DEGREE 3 YRS Total		789
		U Total			1 033
	DEP OF PUBLIC MANAGEMENT&GOVE R Total				1 176
	DEP OF TRANS &SUPPLY CHAIN MGT	P	Bachelor Honours Degree	1	130
				2	54
			Bachelor Honours Degree Total		184
			DOCTORAL DEGREE	1	3
			DOCTORAL DEGREE Total		3
			MASTER'S DEGREE	1	1
			MASTER'S DEGREE Total		1
		P Total			188

		U	BACCALAUREUS TECHNOLOGY DEGREE	1	185
			BACCALAUREUS TECHNOLOGY DEGREE Total		185
			Bachelor's Degree	1	112
				2	119
				3	145
			Bachelor's Degree Total		376
			Diploma (360)	1	268
			Diploma (360) Total		268
			GEN OR PROF 1ST B DEGREE 3 YRS	3	9
			GEN OR PROF 1ST B DEGREE 3 YRS Total		9
			NATIONAL DIPLOMA	1	28
				2	334
				3	301
				4	56
			NATIONAL DIPLOMA Total		719
		U Total			1 557
	DEP OF TRANS &SUPPLY CHAIN MGT Total				1 745
	School of Tourism and Hospitality	P	Bachelor Honours Degree	1	7
				2	1
			Bachelor Honours Degree Total		8

			DOCTORAL DEGREE	1	6
			DOCTORAL DEGREE Total		6
			MASTER'S DEGREE	1	9
			MASTER'S DEGREE Total		9
		P Total			23
		U	BACCALAUREUS TECHNOLOGY DEGREE	1	47
				2	11
			BACCALAUREUS TECHNOLOGY DEGREE Total		58
			Diploma (360)	1	159
				2	50
				3	10
			Diploma (360) Total		219
			GEN OR PROF 1ST B DEGREE 3 YRS	1	70
				2	43
				3	32
			GEN OR PROF 1ST B DEGREE 3 YRS Total		145
			NATIONAL DIPLOMA	1	28
				2	93
				3	131
			NATIONAL DIPLOMA Total		252
		U Total			674

	School of Tourism and Hospitality Total				697
MANAGEMENT Total					8 876

Appendix 3: Faculty of Management departments

Department	Subjects	Lecturer	Date	Time	Venue	Email	Total number of students registered	Number of students who participated
Applied Information Systems		Mr Lucas Khoza	Friday	08:00	J Black 5	rakgadit@uj.ac.za	98	29
Business Management	Business management 3A and 3B	Professor De Bruyn (3A) Mrs Makka (3B)	Wednesday	15:30-17:05	E Les 200	hdebruyn@uj.ac.za	178	62
Information and Knowledge	Information and Knowledge 3A and 3B	Miss Dinaph(3A), Miss Lefika(3A)	Thursday	11:20-12:55	D Lab basement K02	+27 (0)11 559 4000 (Lefika) tlefika@uj.ac.za	145	37
Industrial Psychology and people management	Industrial Psychology 3A	Dr Fourie	Tuesday 28/03/2017	15:30-17:05	C Les 204	+27 (0)11 559-3064 lfourie@uj.ac.za	209	37
Public Management and Government	Public Management 3A	Miss Yolanda	Tuesday 28/03/2017	10:30-12:05	E Les 100	Yolandab@uj.ac.za	453	83
Transport and Supply Chain Management	Logistics Management Systems A and B	Dr Carstens	Thursday Wednesday	17:10-18:45 08:50-10:25	E Les 203 D1 Lab 108	Stephcar@global.co.za	145	56
Tourism Management and Development		Dr Nicola Wakelin-Theron	Monday	10:30	Opposite STH Foyer	nicolaw@uj.ac.za +27 11 559 1037	131	45
Marketing Management	Marketing Management 3C	Professor Mpinganjira	Thursday	09:40-11:15	D Les 105	mmpinganjira@uj.ac.za	152	50

Appendix 4: Frequencies

Statistics		
A3 How old are you?		
N	Valid	393
	Missing	6
Mean		22.35
Median		22.00
Mode		22
Std. Deviation		2.244
Minimum		19
Maximum		54

Appendix 5: Factor frequencies

Perceive ease of use

Perceived ease of use							
		Strongly Disagree	2	3	4	Strongly Agree	Total
The UJ Facebook page is flexible to interact with	Count	16	46	162	98	76	398
	%	4.0%	11.6%	40.7%	24.6%	19.1%	100.0%
I find it easy to get the UJ Facebook page to do what I want it to do	Count	22	73	130	113	60	398
	%	5.5%	18.3%	32.7%	28.4%	15.1%	100.0%
It is easy to become skillful at using the UJ Facebook page	Count	23	72	128	109	67	399
	%	5.8%	18.0%	32.1%	27.3%	16.8%	100.0%
I find the UJ Facebook page easy to use	Count	11	47	126	122	93	399
	%	2.8%	11.8%	31.6%	30.6%	23.3%	100.0%
Interaction with the UJ Facebook page is clear and understandable	Count	13	52	122	124	88	399
	%	3.3%	13.0%	30.6%	31.1%	22.1%	100.0%

Critical mass

Critical mass							
		Strongly Disagree	2	3	4	Strongly Agree	Total
	Count	64	71	112	95	57	399

The UJ Facebook page is popular among my friends	%	16.0%	17.8%	28.1%	23.8%	14.3%	100.0%
A good number of my friends have visited the UJ Facebook page	Count	43	72	122	96	66	399
	%	10.8%	18.0%	30.6%	24.1%	16.5%	100.0%
People from my class (my fellow students) are on the UJ Facebook page	Count	26	77	133	92	71	399
	%	6.5%	19.3%	33.3%	23.1%	17.8%	100.0%

Capability

Capability							
		Strongly Disagree	2	3	4	Strongly Agree	Total
The UJ Facebook page provides clear instructions for posting	Count	32	81	136	81	69	399
	%	8.0%	20.3%	34.1%	20.3%	17.3%	100.0%
Images and videos can be easily downloaded or uploaded on the UJ Facebook page	Count	25	66	144	94	69	398
	%	6.3%	16.6%	36.2%	23.6%	17.3%	100.0%
Applications and capabilities of the UJ Facebook page meet my social networking needs	Count	30	68	143	101	57	399
	%	7.5%	17.0%	35.8%	25.3%	14.3%	100.0%

PP1 For a social networking website, the UJ Facebook page features and application are

PP1 For a social networking website, the UJ Facebook page features and application are:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not delightful	21	5.3	5.3	5.3
	2	46	11.5	11.7	17.0
	3	126	31.6	32.1	49.1
	4	125	31.3	31.8	80.9
	Delightful	75	18.8	19.1	100.0
	Total	393	98.5	100.0	
Missing	System	6	1.5		

Total	399	100.0		

PP2 For a social networking website, the UJ Facebook page features and application are

PP2 For a social networking website, the UJ Facebook page features and application are:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dull	28	7.0	7.1	7.1
	2	56	14.0	14.3	21.4
	3	139	34.8	35.5	56.9
	4	110	27.6	28.1	84.9
	Exciting	59	14.8	15.1	100.0
	Total	392	98.2	100.0	
Missing	System	7	1.8		
Total		399	100.0		

PP3 For a social networking website, the UJ Facebook page features and application are

PP3 For a social networking website, the UJ Facebook page features and application are:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not thrilling	23	5.8	5.9	5.9
	2	68	17.0	17.4	23.3
	3	140	35.1	35.8	59.1
	4	94	23.6	24.0	83.1
	Thrilling	66	16.5	16.9	100.0
	Total	391	98.0	100.0	
Missing	System	8	2.0		
Total		399	100.0		

PP4 For a social networking website, the UJ Facebook page features and application are

PP4 For a social networking website, the UJ Facebook page features and application are:							
		Frequency	Percent	Valid Percent	Cumulative Percent		
Valid	Not fun	26	6.5	6.6	6.6		
	2	54	13.5	13.7	20.4		
	3	116	29.1	29.5	49.9		
	4	104	26.1	26.5	76.3		
	Fun	93	23.3	23.7	100.0		
	Total	393	98.5	100.0			
Missing	System	6	1.5				

Total	399	100.0				

Perceived usefulness

Perceived usefulness							
		Strongly Disagree	2	3	4	Strongly Agree	Total
Using the UJ Facebook page enables me to get re-connected with people that matter to me	Count	52	72	142	89	44	399
	%	13.0%	18.0%	35.6%	22.3%	11.0%	100.0%
I find the UJ Facebook page useful in my student life	Count	30	81	127	107	54	399
	%	7.5%	20.3%	31.8%	26.8%	13.5%	100.0%
Using the UJ Facebook page enhances my effectiveness to stay in touch with others	Count	41	78	138	99	43	399
	%	10.3%	19.5%	34.6%	24.8%	10.8%	100.0%
Using the UJ Facebook page makes it easier to stay in touch	Count	39	73	135	102	50	399
	%	9.8%	18.3%	33.8%	25.6%	12.5%	100.0%
Using the UJ Facebook page makes it easier to stay informed about the university	Count	21	50	106	122	100	399
	%	5.3%	12.5%	26.6%	30.6%	25.1%	100.0%

Trustworthiness

Trustworthiness							
		Strongly Disagree	2	3	4	Strongly Agree	Total
I trust the UJ Facebook page's information	Count	24	73	112	100	90	399
	%	6.0%	18.3%	28.1%	25.1%	22.6%	100.0%
The UJ Facebook page provides security for my postings	Count	17	77	143	92	70	399
	%	4.3%	19.3%	35.8%	23.1%	17.5%	100.0%
The UJ Facebook page provides security for my profile	Count	27	70	144	109	49	399
	%	6.8%	17.5%	36.1%	27.3%	12.3%	100.0%
I feel safe in my posting with the UJ Facebook page	Count	28	75	136	86	74	399
	%	7.0%	18.8%	34.1%	21.6%	18.5%	100.0%

Intention to use

Intention to use							
		Strongly Disagree	2	3	4	Strongly Agree	Total
I intend to use the UJ Facebook page for communicating with others	Count	69	76	140	72	41	398
	%	17.3%	19.1%	35.2%	18.1%	10.3%	100.0%
I intend to use the UJ Facebook page to get reconnected with people that matter to me	Count	76	71	134	73	44	398
	%	19.1%	17.8%	33.7%	18.3%	11.1%	100.0%
I will continue to use the UJ Facebook page for social networking	Count	58	70	136	83	51	398
	%	14.6%	17.6%	34.2%	20.9%	12.8%	100.0%

Actual use AU1

au1 How often per week do you visit the UJ Facebook page?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	42	10.5	10.7	10.7
	Rarely	115	28.8	29.3	40.1
	Sometimes	143	35.8	36.5	76.5
	Often	52	13.0	13.3	89.8
	Very often	40	10.0	10.2	100.0
	Total	392	98.2	100.0	
Missing	System	7	1.8		
Total		399	100.0		

Autotmin Actual use: minutes

Autotmin Actual use: minutes					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	22	5.5	5.7	5.7
	1.00	4	1.0	1.0	6.8
	2.00	14	3.5	3.7	10.4
	3.00	2	0.5	0.5	11.0
	5.00	23	5.8	6.0	17.0
	7.00	1	0.3	0.3	17.2
	8.00	1	0.3	0.3	17.5
	10.00	31	7.8	8.1	25.6
	15.00	23	5.8	6.0	31.6
	20.00	16	4.0	4.2	35.8
	25.00	1	0.3	0.3	36.0
	30.00	41	10.3	10.7	46.7

	35.00	3	0.8	0.8	47.5
	40.00	3	0.8	0.8	48.3
	45.00	12	3.0	3.1	51.4
	50.00	1	0.3	0.3	51.7
	60.00	34	8.5	8.9	60.6
	65.00	1	0.3	0.3	60.8
	69.00	1	0.3	0.3	61.1
	70.00	2	0.5	0.5	61.6
	75.00	2	0.5	0.5	62.1
	80.00	2	0.5	0.5	62.7
	90.00	14	3.5	3.7	66.3
	105.00	2	0.5	0.5	66.8
	120.00	32	8.0	8.4	75.2
	130.00	1	0.3	0.3	75.5
	135.00	4	1.0	1.0	76.5
	150.00	9	2.3	2.3	78.9
	160.00	1	0.3	0.3	79.1
	165.00	2	0.5	0.5	79.6
	180.00	21	5.3	5.5	85.1
	190.00	2	0.5	0.5	85.6
	200.00	2	0.5	0.5	86.2
	210.00	4	1.0	1.0	87.2
	215.00	1	0.3	0.3	87.5
	240.00	9	2.3	2.3	89.8
	270.00	1	0.3	0.3	90.1
	300.00	5	1.3	1.3	91.4
	360.00	4	1.0	1.0	92.4
	390.00	2	0.5	0.5	93.0
	420.00	6	1.5	1.6	94.5
	450.00	1	0.3	0.3	94.8
	452.00	1	0.3	0.3	95.0
	600.00	8	2.0	2.1	97.1
	690.00	1	0.3	0.3	97.4
	765.00	1	0.3	0.3	97.7
	840.00	1	0.3	0.3	97.9
	868.00	1	0.3	0.3	98.2
	880.00	1	0.3	0.3	98.4
	900.00	2	0.5	0.5	99.0
	1214.00	1	0.3	0.3	99.2
	1230.00	1	0.3	0.3	99.5
	1440.00	1	0.3	0.3	99.7
	1830.00	1	0.3	0.3	100.0
	Total	383	96.0	100.0	
Missing	System	16	4.0		
Total		399	100.0		

Appendix 6: Scree plot