CHAPTER ONE:
INTRODUCTION, PROBLEM STATEMENT, OBJECTIVES AND METHOD OF RESEARCH

1.1 Introduction

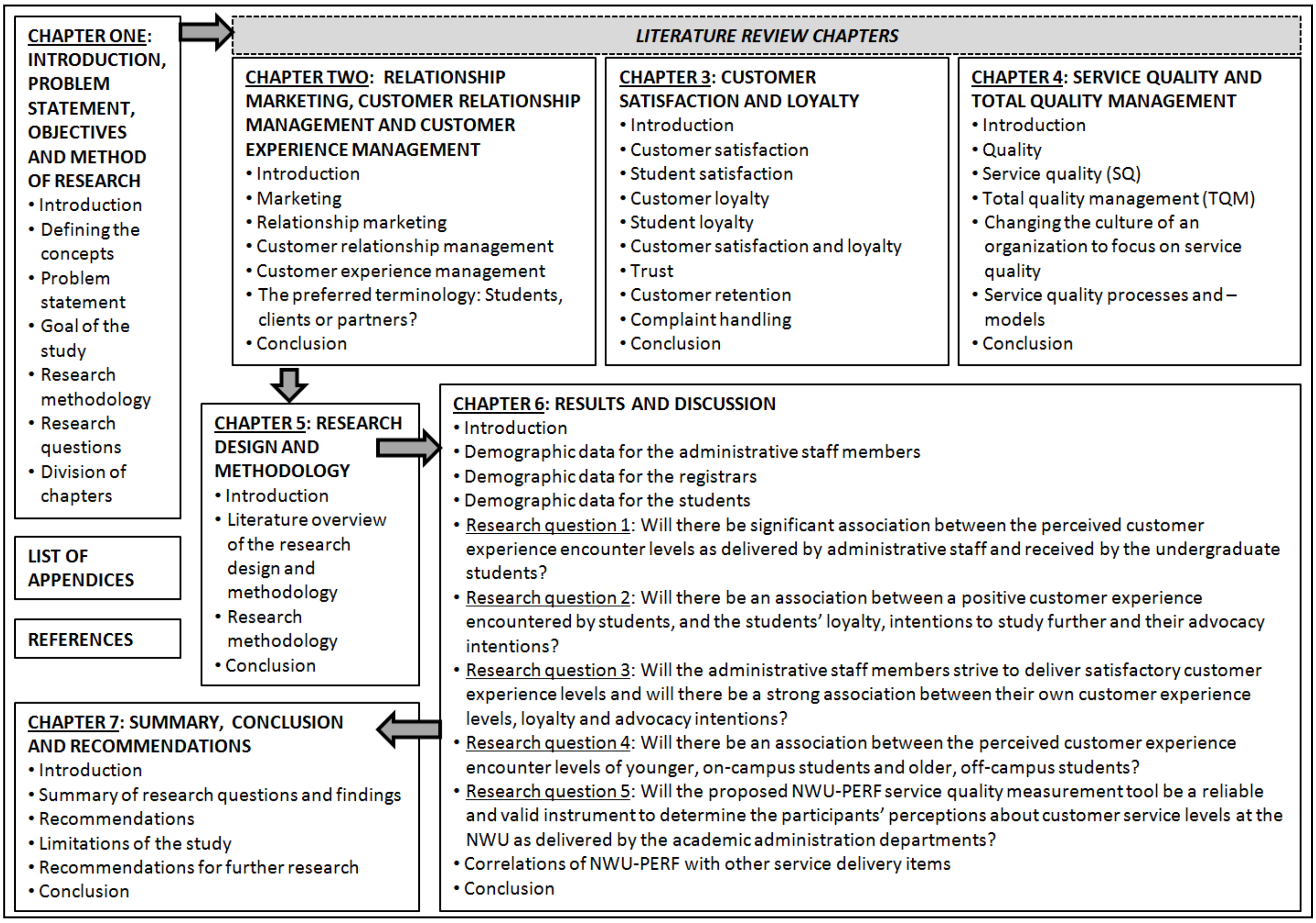
This chapter will provide an overview of the research topic, the different terms and concepts that will be used (including its definitions) and the problem statement. The goal of the study will be identified, as well as its expected contribution to the field of study. The research questions will be formulated, as well as the demarcation of the study. This conceptual framework of this study is illustrated in Figure 1.1 below.

Because this study will be focused on the North-West University (NWU), its background, structures, relevant policies and approaches will be briefly outlined as well.

The research methodology will be concisely explained, by referring to the literature study, the research design, including the design of the questionnaire and data analysis methods.

Lastly, the division of chapters will be indicated.

Figure 1.1: Conceptual framework of this study



1.2 Defining the concepts

Customer experience management (CEM) and customer relationship management (CRM) are terms associated with the relatively new concept of relationship marketing (RM), according to Christopher *et al.* (2002:17).

As the literature overview below will indicate, customer satisfaction measurement, customer retention, service quality (including the concept of total quality management) and loyalty are related concepts and also need to form part of this study.

All these concepts will be briefly defined below, but it will be discussed at more length in the appropriate chapters later.

1.2.1 Marketing and relationship marketing

It is safe to assume that marketing and relationship marketing as disciplines are taught at most HEIs, and that the majority of these universities also has a marketing department within their support structure with the aim of promoting the university by recruiting new students, communicating with stakeholders like the media, the public and alumni, and other marketing-related issues. In this study marketing as a field of discipline will be briefly discussed, but the emphasis will fall more on the latest trends towards the establishment and creation of relationship marketing as discipline (including the different views of the subject), as well as the related terms customer relationship management (CRM) and customer experience management (CEM). The study will further try to establish whether these concepts (RM, CRM and CRM) are not merely taught by HEIs, but also whether they are applied in practice – to the benefit of the involved university.

According to Egan (2008:291) marketing has traditionally been seen as the management process specifically responsible for the identification, anticipation and satisfaction of the customer's profitability. However, Burrow (2006:8) warns that marketing has changed recently and continues to change, making its definition and activities more complex. Christopher *et al.* (2002:5) claim that marketing can also no longer be seen as the sole responsibility of the marketing department, but as a cross-functional discipline within an organization. Mullens & Walker Jnr (2010:6) agree and state that marketing plays an important role in the broader context of the global economy, as it helps to facilitate exchange relationships among people, organizations and nations. This is a major shift from the original belief of companies and their executives, who used to leave this strategic function in the hands of the marketing or public relations department and gave them a limited budget to drive a advertising campaign, publish in-house magazines and issue press releases when really necessary.

A very simplistic definition of marketing is provided by Armstrong & Kotler (2005:6), who claims it is the process of managing profitable customer relationships. Mullens & Walker Jnr

(2010:14) provide a very comprehensive definition of marketing when declaring that it is "the process of analysing, planning, implementing, coordinating, and controlling programs involving the conception, pricing, promotion and distribution of products, services, and ideas designed to create and maintain beneficial exchanges with target markets for the purpose of achieving organizational objectives".

It is thus clear that the traditional approach and definition of marketing is no longer adequate and that marketing should be seen as a multifarious discipline at the heart of any entity, which can influences all its core activities, including profitability, and that the emphasis should continuously be focussed on the establishment and satisfaction of customer needs in a mutually-beneficial manner by providing appropriate products and/or services.

Gummesson (2002:3) considers RM to be an extension of marketing based on interaction within networks of relationships. Baran *et al.* (2008:83) try to simplify the matter when they state that RM is a focus on the relationships between an organization and its customers based on cooperation and collaboration. Hennig-Thurau *et al.* (2002:231) state that all RM-activities are eventually assessed based on the organization's overall profitability. The emphasis is thus on activities that can improve the relationship, and as a result of it, also the eventual profitability.

The link between RM and CRM will also be investigated, as well as how it applies in the HEI environment.

1.2.2 Customer relationship management

Boulding *et al.* (2005:155) consider customer relationship management (CRM) as a broad-based concept that interests many scholars, because of the impact it can have on the marketing domain. They define it as the result of the ongoing development and incorporation of marketing concepts and the latest technologies, data and organizational structures. According to Christopher *et al.* (2002:xiii) CRM has emerged as a massive area of interest around the world. Payne (2000:2) defines CRM as a management approach that seeks to create, develop and enhance relationships with carefully targeted customers in order to maximize customer value, corporate profitability and thus shareholder value. In this study the different CRM-approaches will be discussed in more details, as well as the reasons why the *softer* CRM-approach is found to be more applicable in the HEI environment.

1.2.3 Customer experience management

Just as some authors agree that Berry was the first person to formally use the term RM back in 1983 (although the concept and principles seems to be older, as will be discussed later in more details), it is evident that Pine *et al.* (1998a:97) can be accredited for introducing the term customer experience management (CEM) to the world.

CEM is a closely-related term to CRM and RM, which is receiving more attention in the latest literature, according to Frow *et al.* (2007:89). The same approach is supported by Kiska (2002:28), who considers CEM not only as a critical addition to CRM, but also an improvement, because it enables the organization to develop a 360-degree view of the customer. This constant cyclical approach provides a substantial benefit to customers and stakeholders, as will be elaborated on later.

Wolf (2006:2) stated that the perfect customer experience occurs when it leads to more customers becoming loyal advocated who can create more positive referrals, customer retention, an expansion of the customer base and profitability - a brief, but accurate description that summarizes the core of this study in one sentence.

The single most powerful way for companies to establish sustainable differentiation, is to provide a superior customer experience, according to an article about *Achieving Exceptional Customer Experience* (Anon. 2007:3). Due to the global competitiveness, the potential to establish sustainable relationships should be attractive to any organization. Shaw *et al.* (2002:1) provide a more radical description of CEM when stating that the customer experience will become the next *business tsunami* or *competitive battleground*. This implies that the CEM-approach will lead to wide and substantial benefits for all types of organizations.

Gilmore *et al.* (2002:4) provide a useful purpose for the establishment of an experiential approach, as it makes marketing itself redundant and unnecessary. This is because a well-established CEM-approach should lead to loyal customer advocates who will promote the organization in a much-more credible way than normal marketing efforts. It will be discussed in the next chapters in more detail.

Other, related terms, such as *user experience*, as used by Tanner (2008:6) also appear in the literature, but are less popular and will not be further investigated.

1.2.4 Customer satisfaction

Most organizations believe that a successful customer-driven management style will lead to the creation of a substantial group of satisfied customers, which will lead to a cycle of additional benefits, which will be covered in the next literature overview chapters.

Customer satisfaction can be considered as a summative emotional reaction that varies in intensity, is time-specific and has a limited duration, according to Giese *et al.* (2000:15). There are however, several other angles proposed in the literature, as will be discussed.

Elliott *et al.* (2002:198) accurately point out that student satisfaction is constantly being formed by repeated experiences on campus and can be seen as a web of overlapping experiences. According to Clemes *et al.* (2007:313) an increased satisfaction level among students will lead to an increased change of further studies, as well as a higher level of promotion of the university to others (also called *advocacy*).

1.2.5 Customer loyalty

There is also a general conception that customer satisfaction will lead to customer loyalty and this relationship will have to be investigated further, as it forms the basis of specific assumptions and claims made in this study. Bailor (2007:15) states that an organization that delivers a flawless customer experience will have a distinctly stronger chance of creating more loyal customers. Loyalty towards a supplier is shown by a favourable inclination towards that product or service and may be behavioural or attitudinal in nature, according to East *et al.* (2005:10).

A very simplistic definition of loyalty is that of Egan (2008:55), who states that loyalty suggests the highest possible level of relationship, but Egan's definition lacks a reference to actions like purchase behaviour or eventual profitability.

Rowley (2005:574) observes that customers show their loyalty by either staying with that supplier; or by increasing the number of purchase, the frequency of purchase, or both; or by becoming advocates that promotes the supplier by means of word-of-mouth referrals.

1.2.6 Service Quality and Total Quality Management (TQM)

The initial approach towards quality management was focused on product quality and on ensuring that customers were satisfied with the quality of the products they bought. The focus later shifted to include the quality of services as well. Clemes *et al.* (2007:315) found in their study that service quality is the most important contributor towards increased customer satisfaction levels.

Zink (1998:38) considers TQM to be a "comprehensive concept aiming at business excellence", while Ross (1999:1) defines TQM as the integration process of all activities within an organization with the sole aim to achieve continuous enhancement of the quality of goods and services, with the aim to provide customer satisfaction (CS). This link between TQM and CS is vital, as it provides one of the foundations of this study.

According to Oldfield *et al.* (2000:86) it is still an emotive issue to determine what comprises service quality in the HEI environment. Voss *et al.* (2007:949) warn that new students have an idealistic belief of the service quality levels they can expect on campus and that HEIs must strive to determine those levels, to enable them to manage the process better.

Eagle *et al.* (2007:45) claim that the quality movement is partially to blame for the establishment of the notion that students should be treated as customers. There are several different opinions about the preferred terminology when referring to the services students' experience in a campus-environment, which will be discussed later.

TQM was introduced to the HEI environment to make it more relevant, as also reported by Eagle *et al.* (2007:45). Sakthivel *et al.* (2005:574) earlier also referred to this and stated that TQM is considered as a universal and successful tool and should therefore be used in the HEI environment, while Gummesson (2002:11) considered TQM as one of the new branches of RM.

There are several service quality measuring instruments in the literature that will be reviewed to determine the most suitable model for the HEI environment.

1.3 Problem statement

Literature searches indicate that there are very few published studies about CEM on the international tertiary institutional level. Although most HEIs have experts lecturing this topic to undergraduate students, and although several post-graduate research projects are conducted about CEM, it very seldom focuses on the HEI environment itself, and is mostly aimed at the commercial environment. It is therefore not clear from the literature whether the same principles and relationship between concepts that exist in the commercial CEM environment will also be applicable to the HEI environment, and whether HEIs can reap the same benefits from investing in the creation of a positive CEM environment on campus by providing better and more efficient support services to its students and customers.

In the South African context CEM is also relatively unknown and therefore this study can contribute towards a better understanding, awareness and application of this new concept. This study will focus on the CEM approach followed by the North-West University (NWU), as well as the related experiences of undergraduate students and support staff rendering administrative services to these students.

1.3.1 The North-West University (NWU)

The merger of the Potchefstroom University for Christian Higher Education (PUCHE) with the University of the North-West (UNW) on 1 January 2004 led to the establishment of the North-West University (NWU). This merger process was part of a national drive by the Minister of Education to restructure higher education in South Africa by decreasing the number of Higher Educational Institutions (HEIs) from 36 to 21 and to ensure the transfer and distribution of skills to ensure a higher standard of education countrywide, according to the historic overview of the North-West University (2009d:1).

This new university can be considered as one of the first fully restructured post-apartheid universities and represents various different groups of students all over Southern Africa, as it was the first completed merger. According to the annual report of the North-West University (2009c:31) there were 47,008 students enrolled at the NWU in 2008, which makes it the fourth-largest university in South Africa. More than half of these students (55%) were on-campus, and the other 45% were off-campus students. Nearly two-thirds of all students (65%) are female.

There are three different NWU-campuses, based in Mafikeng, Vanderbijl Park (the Vaal Triangle Campus) and Potchefstroom. The institutional office, which provides certain centralised functions like human resources, information technology and financial management, is also based in Potchefstroom.

The Potchefstroom Campus is the biggest with 35,174 students (75%), while there were 8,090 students enrolled at the Mafikeng Campus (17%) and 3,744 students at the Vaal Triangle Campus (8%), according to the 2008 annual report of the North-West University (2009c:31).

There are 15 different faculties on the three campuses in total, with the Potchefstroom Campus having eight faculties, the Mafikeng Campus five and the Vaal Triangle Campus two. Alignment processes among cognate faculties across campus-boundaries are in an advanced stage.

Figure 1.2: Faculties of the North-West University

Mafikeng Campus	**Potchefstroom Campus**	**Vaal Triangle Campus**
Faculty of Agriculture, Science and Technology	Faculty of Arts	Faculty of Humanities
Faculty of Commerce and Administration	Faculty of Natural Sciences	Faculty of Economic Sciences and Information Technology
Faculty of Education	Faculty of Theology	
Faculty of Human and Social Sciences	Faculty of Education Sciences	
Faculty of Law	Faculty of Economic and Management Sciences	
	Faculty of Law	
	Faculty of Engineering	
	Faculty of Health Sciences	

1.3.2 NWU mission statement and operational plan

1.3.3 NWU policies and practices

It is necessary to establish whether there are any current policies and practices in place at the NWU to ensure a higher quality of education and student support.

In the initial mission- and vision statement of the NWU, which was drawn up in 2005 after the merger, there was no reference to quality- or a customer focus. However, the latest mission elements of the North-West University (2009b:6) now include not only a clear reference to quality teaching, learning and research, but also to a customer focus rooted in quality. It proposes that quality management systems should be established and controlled, as well as the creation of an optimized, integrated performance management system with incentive programmes. This performance management system recognises and awards customer-focused conduct, as will be discussed in more detail in Chapter 5.

The institutional plan of the North-West University (2009b:4) also refers to its aim to "be an institution with a client focus embedded in quality". To implement this strategy, a policy for feedback about teaching and learning by students of the North-West University (2008:1) was drawn up. This policy aims to provide a standardized framework for student feedback about teaching and learning at the NWU, but does not make provision for feedback about students' experience with regards to services rendered by support services departments. Students get the opportunity from time to time to formally evaluate their lecturers, which is then used to determine whether the students are satisfied with the quality of teaching and learning on campus.

1.3.4 NWU quality office

The NWU also established a quality office at the institutional level, which is responsible for the encouragement and improvement of a quality culture on all levels and campuses at the NWU. They must create and maintain policies, structures, actions, processes and procedures to achieve, maintain, monitor and promote quality by setting and measuring specified standards in a continuous cycle.

The Institutional Office also publishes a newsletter, *Eish*, which has as a standard feature an article about staff members nominated for walking the extra mile in terms of customer service. This creates a continuous awareness among staff that customer-focused colleagues should be identified and honoured for their positive contributions. It includes treating internal customers (colleagues) and external customers (students and other stakeholders) well.

1.4 Goal of the study

The reason for undertaking this study was to determine the customer experience levels of the students at the administrative level on the different campuses and modes of delivery of the NWU, as it might affect their loyalty, intentions to study further, and also to positively recommend the NWU to others (also called "advocacy"). The population included students of different age groups, as well as administrative staff and the most suitable service quality measurement instrument was also identified and constructed.

Since six years have expired since the merger took place, it was important to evaluate the efficiency of the perceived service levels and student experiences at this stage.

This study aimed to provide a contribution to the field of RM in South Africa, as well as to the specific field of CEM on the international tertiary institutional level. It also emphasises the importance of this specific discipline in the working environment by creating more awareness on customer-centric managerial approaches, which could lead to sustained relationships and better profitability.

The Institutional management of the NWU should also be able to use the results and recommendations to focus on specific problem areas of different campuses and modes of delivery and take the necessary steps to improve the satisfaction levels of their students/customers. This should lead to more loyal customer advocates who will contribute actively towards promoting the NWU to prospective students and thus saving on marketing costs and recruitment efforts.

1.4.1 Objectives of the study

- Specific research questions were asked after the literature study has been completed and the problem has been identified.
  - This study aimed to establish the perceived customer experience encounter levels as encountered by the undergraduate students on the different campuses and for the different modes of delivery at the NWU.
  - It also aimed to establish whether there is a direct correlation between a positive customer experience encountered by students and administrative staff, and the students' loyalty, intentions to study further and their advocacy intentions.
  - The same approach was followed towards the administrative staff working with undergraduate students. Their willingness to deliver satisfactory customer experience levels was established, as well as whether there are a strong correlation between it, their own loyalty and customer advocacy levels.
  - Another objective of this study was to determine whether there is a significant difference in the perceived customer experience encounter levels between younger, on-campus students and older, off-campus students, as delivered by the academic administration departments.
  - Several service quality measurement instruments will also be discussed, and the most appropriate model will then be identified, following which suitable elements of it will be used to determine its applicability in the NWU administrative service environment. Other elements that have been identified was also used and tested to determine its reliability and validity in an effort to develop an instrument to determine participants' perceptions about customer service levels at the NWU, as delivered by the academic administration departments.

- Appropriate and useful recommendations were constructed after the research questions were answered in an effort to improve the positive customer experience levels and increase the effectiveness of customer advocacy efforts at the NWU.

1.4.2 Limitations of the study

The large numbers of off-campus students involved in the various cooperation agreement programmes presented by the NWU and its partners all over Southern Africa made it impossible to include all students of the NWU, and only programmes offered on the three campuses, as well as off-campus programmes where the NWU was solely responsible for the administrative support of students could have been included in the study. The same argument restricted access to the post-graduate students of the NWU. The response rate differed between the different campuses and modes of delivery, due to the marked variation in sizes of the different populations.

Other limitations include the fact that not all the sample elements were selected by using probability sampling techniques only, and that respondents could have been biased in their completion of the questionnaires by indicating the ideal customer interface experiences and not necessarily their actual experiences.

It was also possible that the could have answered the questions by indicating the ideal customer experience or the answer that they anticipated to be the correct or ideal response. This could be because they feel loyal towards the NWU, or the relevant staff member/s or department/s, and did not want to portray them in a negative manner. On the other hand it was also possible that respondents who were upset about other problems at the NWU gave a more negative response to specific issues that were not true or honest. Respondents' interpretation of the Likert-scales could also have been different and this could have led to diverse answers to the same experience or situation. It was also possible that the respondents might have misunderstood the instructions and that some of the therefore misinterpreted some of the questions, the Likert-scale and other parts of the questionnaire.

1.4.3 Demarcation of the field of study

This study was limited to the CEM-approach of the NWU. Like most other traditional contact-mode universities, the former PUCHE and the UNW opted during the 1990s to venture into a blended mode of delivery, to enable the universities to widen their horizons and to make the Universities more accessible to students who are unable to follow full-time contact programmes.

Furthermore, this study focused on specific support staff members, as well as the registrars (on campus and at institutional level). Staff members of all three academic administration departments on the three campuses, as well as administrative managers and – assistants at the different faculties were selected to form part of this study, as well as administrative support staff for the relevant modes of deliveries at the faculties involved in this study. Representative samples were also selected from the students from all the different campuses and modes of delivery. This included students from the Mafikeng on- and off-campus programmes, the Vaal Triangle on- and off-campus programmes, and the Potchefstroom Campus-programmes (on-campus, telematic programmes, SEDIBA-, flexi- & bursary learning programmes and school-based education programmes).

The questionnaires drawn up focused specifically on the customer experiences of students' with regards to the administrative service environment at their specific schools and faculties, as well as at the academic administration department of their campus of the NWU.

1.5 Research methodology

1.5.1 Literature study

The NWU's Ferdinand Postma Library's databases were used to identify suitable textbooks and academic articles that are related to the key concepts of this study. Only articles and textbooks published after 2000 were considered as a general rule, but some historic works were also used when it was deemed to be necessary and able to contribute to the study's field of interest.

Several methods were used to identify appropriate sources. This included using the books catalogue database to identify suitable hard copy textbooks. Appropriate academic articles were identified by using the comprehensive *EBSCOhost*-search engine available on the Ferdinand Postma Library web site (including the major databases like *Academic Search Premier, Business Source Premier* and *E-Journals*) and then exported to the *RefWorks* web-based citation management programme, where a database was stored in the correct NWU-Harvard bibliographical style, downloaded in *Acrobat PDF*-format, printed and studied. Textbooks were also added manually to ensure the accuracy and completeness of the database.

All these sources were then studied to obtain a broader knowledge about the field of study, to identify specific trends and approaches and make notes of relevant sections that were referred to in the literature overview section of this study.

1.5.2 Empirical survey

1.5.2.1 Research design and method of data collection

This study was a descriptive- or statistical research project, as it aimed to answer specific questions about particular populations' experiences and approaches related to the customer service interaction at the NWU on administrative level.

A combination of both qualitative and quantitative research methodology model with a coordinated approach was followed, as will be indicated and motivated below. That included the alignment of the questions used in both the questionnaires and interviews.

The NWU research ethics application form was also completed and submitted to the research unit of the faculty, to ensure that the study adheres to the research ethics guidelines of the NWU. An informed consent section were also included in the beginning of the questionnaires for the students and administrative staff members, as well as in the questions asked to the registrars during the structured interviews.

This approach was followed to improve the research quality, and to be able to compare the results of the different target populations.

1.5.2.1.1 Registrars (qualitative approach)

A structured interview was conducted with the institutional registrar of the NWU, as well as with the three campus registrars to determine their opinions about the NWU’s CEM-approach and how their staff members apply it in practice, as well as on the existence and application of any policies in this regard. They were asked to rate certain statements that were adapted from the selected service quality model. These statements also formed part of the questionnaire for administrative staff members and undergraduate students.

1.5.2.1.2 Administrative staff members (quantitative approach)

This study was conducted on administrative staff from all three campuses who are involved with all the different modes of delivery at the NWU. A questionnaire was drawn up to establish the administrative staff’s opinions about the NWU’s CEM-approach and how they and their colleagues apply it in practice, as well as their satisfaction and loyalty levels. They were also asked to rate certain statements that were adapted from the selected service quality model. These statements were also used in the interview with the Registrars.

1.5.2.1.3 Undergraduate students (quantitative approach)

Undergraduate students from all three campuses and involved with all the different modes of delivery formed part of this study. Data from the NWU Management Information was used, as well as its Data Dictionary North-West University (2009a:46) and the different faculty administrative managers to determine the student numbers per campus and mode of delivery. A questionnaire was drawn up to establish the students’ opinions about the NWU’s CEM-approach and how they experience it in practice, as well as their satisfaction and loyalty levels. They were asked to rate certain statements that were adapted from the selected service quality model. These statements were the same ones used in the interview with the Registrars and the questionnaires for the administrative staff.

1.5.2.2 Development of the sample plan

The population was defined as all undergraduate students of the NWU on all campuses and for all modes of delivery, as well as all the administrative staff of the NWU dealing directly with these students, and all three the campus registrars and the institutional registrar of the NWU.

Due to the large number of undergraduate students on some campuses, as well as the relative smaller populations of some of the off campus programmes (ranging between 156 students for the school-based learning model, up to 13,201 for the on-campus students at Potchefstroom), the sample size will not be the same for all the strata, but a sample of ten percent was strived for, representing all campuses, modes of delivery, faculties and year groups. In the case of the two largest on-campus strata (Potchefstroom and Mafikeng) the sample size was planned to be four percent of the specific population.

Classes of students were visited in the on-campus environment after their modules where systematically randomly selected, and permission has been granted from lecturers. After the students were briefed, every tenth student were handed a questionnaire and asked to complete it.

Due to the unique communication channels available for the different modes of delivery, the questionnaires was made available in hard copy, but also on the electronic learning platform for certain population groups where it could have been more effective. These sampling techniques and approaches will be discussed at length in Chapter 5, while the detail of the sample size will be discussed in section 5.2.2.4.1.4.

The numbers of administrative staff and registrars are easier to cope with and therefore the total population was included in this study.

1.5.2.3 Development of the questionnaire

During the literature review, examples of other questionnaires in the HEI environment were studied to get a better indication of the types of questions that can be used in the drawing up of a unique questionnaire that will accurately measure the indicated objectives of this study. After the most appropriate service quality measuring instrument was determined, it was studied at more length to identify the most appropriate questions. Related questions were then drawn up to complement these questions and expand on the theory of this study.

The other questionnaires in the HEI environment were identified by using the Google web search engine, but only questionnaires found inside a HEI web site (.edu, etc) were identified and studied to indentify appropriate questions.

Most of the questions attempting to measure the direct customer interface experiences were identified during interviews with experienced administrative support staff members. These questions were aligned in the different questionnaires for students and administrative staff members, as well as for the structured interviews for the registrars, as indicated in Appendix The questionnaires were tested under a group of 25 undergraduate students that were randomly selected, while the questionnaire for the administrative support staff members were tested by five staff members. One of the four registrars was involved in testing the list of structured questions for the registrars.

Their input was used, together with the final input from Statistical Consultation Services and the promoter, before the questionnaire was finalized, printed and distributed.

As this study places a high premium on the *experience* of students in the service interaction, it was necessary to construct questions that were able to measure actual service encounters as accurately as possible. It was therefore important to interact with experienced administrative staff and students to be able to identify measurable service encounters and construct the questions in such a way that the outcomes will be accurate. This included incidents like telephone answering time or desk waiting time. It was also important to construct the questions in such a way that comparisons could be made between the services rendered by the administrative staff and the services received by the undergraduate students, and to determine the gaps between the two targeted sample groups.

The questions related to the actual service interaction were structured in such a way as to reduce the risk of the *halo*-effect, where participants can indicate the most ideal answer and not necessarily the actual answer. This could be avoided by referring to the service levels of the staff in general and not requiring from each participant to indicate their own service levels.

The draft questionnaires were tested by representatives from these groups, as well as by the Statistical Consultation Services of the NWU to determine whether they were appropriate, understandable, not ambiguous, and interpretable according to standard statistical analytical methods.

1.5.2.4 Data analysis

The *Statistica* and *SPSS*-<u>statistical programmes</u> were used to analyse the data once it had been collected. The Statistical Consultation Services of the NWU assisted with the analytical process and interpretation of the results.

The following statistical techniques were used in this study:

- <u>Frequency tables</u> were used as a descriptive tool to provide more details about the demographic details of the target groups, as well as the basic results of each question in the questionnaires.

- Two-way frequency tables were applied to report on the specific results of some questions compared results, e.g. each student group's response to a certain service encounter. Only the questions with statistically significant results will be reported.
- Exploratory factor analysis was done to determine the pattern matrices. This is according to Rubin (2007:263) a procedure to examine the way items are correlated with one another and to identify the number of factors and what they have in common.
- The factor scores were calculated in all instances.
- Reliability tests like the Cronbach-alpha test were done to determine the internal consistency of the sample groups' results.
- The descriptives of the different factors were also identified. This included the T-tests to determine whether the data distribution was normal and true, and the analysis of variance (ANOVA) which determines whether the means of the different groups were equal and could be generalised on.
- Correlations between the different factors or components were also done in detail, as it helped to show a predictive relationship that can be utilised and developed in practice.

The above statistical techniques were adequate to achieve the mentioned objectives of this study, and rate the following research questions:

1.6 Research questions

- Will there be a significant association between the perceived customer experience encounter levels as delivered by administrative staff and received by the undergraduate students?
- Will there be an association between a positive customer experience encountered by students, and the students' loyalty, intentions to study further and their advocacy intentions?
- Will the administrative staff members strive to deliver satisfactory customer experience levels and will there be a strong association between their own customer experience levels, loyalty and advocacy intentions?
- Will there be an association between the perceived customer experience encounter levels of younger, on-campus students and older, off-campus students?
- Will the proposed NWU-PERF service quality measurement tool be a reliable and valid instrument to determine the participants' perceptions about customer service levels at the NWU as delivered by the academic administration departments?

1.7 Division of chapters

The conceptual framework of this study (Figure 1.1) provided a clear picture of how the different chapters were divided, and what the context of each chapter was. There were three literature chapters identified and presented after the introduction. The results and discussion chapter follows on the research design and methodology chapter, with the summary, conclusion and recommendations at the end.

- Chapter 1: Introduction
- Chapter 2: Literature overview of relationship marketing, customer relationship management and customer experience management
- Chapter 3: Literature overview of customer satisfaction and loyalty
- Chapter 4: Literature overview of Total Quality Management and service quality
- Chapter 5: Research design and methodology
- Chapter 6: Results and discussion
- Chapter 7: Summary, conclusions and recommendations
- Appendices
- Instruments
- Relevant documents
- References