Customer Experience as an Antecedent to Market Orientation:

A Mixed Methods Study of Postgraduate Students

Thesis Presented for the Degree of

DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

Graduate School of Business

University of Cape Town

Submitted by

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June 2022

Plagiarism Declaration

I, Shameema Ebrahim Raja, hereby declare that this dissertation, titled "Customer Experience as an Antecedent to Market Orientation: A Mixed Methods Study of Postgraduate Students", is my own work except where indicated, and that it has not been submitted before for any degree or examination at any university.

Dedication

I dedicate this thesis in loving memory of my late grandfather, Noor Mohamed Raja, and my late father, Ebrahim N.M. Raja. It was your encouragement, inspiration and unconditional belief in me that led me to attempt this PhD. There were days that I felt ready to give up, but your motivating voices echoed within me, keeping me on track. May Almighty GOD grant both of you the highest stage in heaven.

Acknowledgements

The famous sufi philosopher Jalaluddin Rumi once said: "Everyone has been made for some particular work, and the desire for that work has been put in every heart".

I am humbled and thankful at having my heart's desire fulfilled. This journey of the soul was shared and contributed to by so many people who I wish to thank and acknowledge.

Firstly, I would like to praise and thank Almighty GOD who has showered me with HIS countless blessings. I am most humbled and grateful for the knowledge, strength and opportunity to be able to finally accomplish the completion of this thesis.

To my research supervisor, Professor Geoff Bick, thank you for your support, encouragement and guidance in shaping not only my academic development but also my personal growth. Your patience and kindness in the challenging times we all faced is commendable.

Special thanks to:

- Dr. Corrie Uys, for her expert statistical assistance and for always sharing encouraging words of support.
- Professor Rodney Duffet, for his willingness to share his precious time, insights and assistance with the statistics.
- Sameena Amien for her immense kindness, patience and understanding. Her valued insights and professional editing were greatly appreciated.
- Mary Lister and Mathew Van Der Westhuizen for their unconditional willingness to assist during the darkest hour.
- Vedantha Singh for her constant support and guidance.

Thank you to all the participants in this study for sharing your experiences with me and trusting me to interpret your special stories.

Abstract

Market Orientation and Customer Experience are both constructs that belong to the world of business. It has now become necessary for universities to also embrace these business concepts in order to remain relevant and competitive, given the vast changes in Higher Education landscapes globally. Previous studies have looked at the relationship between Market Orientation and Customer Satisfaction. However, Customer Experience has not been identified as an antecedent to Market Orientation. This exploratory study posits that it is Customer Experience that influences Market Orientation at Higher Education institutions. Customer Satisfaction alone does not provide opportunities for students to be co-creators of their educational experiences. Thus, the objective of this study was to determine whether focusing on Customer Experience rather than just evaluating Customer Satisfaction levels can be a greater source of information to guide Market Orientation objectives and its implementation. The theoretical frameworks that guided the conceptual model of this study were the Resource-Based View and the Service-Dominant Logic theory. A cyclical relationship between Market Orientation and Customer Experience was proposed, with the nexus of this relationship being the concept of co-creation.

A mixed methods convergent design approach was applied to collect data at a University of Technology in South Africa. The focus was on the postgraduate master's programme, and both research supervisors and master's students were part of the study sample. During the quantitative phase, data was collected via online surveys from 151 research supervisors, using purposive convenience sampling. Twenty-four master's students were interviewed using the critical incident technique method during the qualitative phase. Descriptive statistics together with Exploratory Factor Analysis were used to analyse the quantitative data, whilst qualitative data was coded and categorised into positive and negative incidents inductively in order to analyse the content to derive themes. The quantitative results and qualitative findings were merged to establish whether the results converged, augmented, differed, or were contradictory.

The major contribution of this study is a cyclical model rather than a sequential model, where a positive relationship between Customer Experience and Market Orientation *is* possible, contingent on the institution's ability to promote co-creation initiatives amongst its key stakeholders. This study's findings reflect, that the stronger the level of Market Orientation practiced by supervisors, the more likely it is that the student experience would be positive, and the greater the impact on students' customer satisfaction levels. Co-creation initiatives

between the university and all its stakeholders, especially students, were viewed as enhancing this relationship. This study reaffirms the roles of the institution, academics/employees and students in building and designing the customer experience at Higher Education institutions.

The knowledge contribution of this study was the focus on Customer Experience and Market Orientation in the context of a developing country like South Africa, among others, given its unique economic, social and cultural structures. Furthermore, this study advances the importance of institutional reputation and research service experience in promoting a conducive environment that supports timely output of postgraduate students who can transfer their knowledge and skills into sectors of the South African economy. The methodological contribution of this study was the validation of the UNIVERSITY-I-MARKOR in the context of the developing world, highlighting the specific dimensions of Market Orientation that needed to be stimulated to enhance the student experience and the quality of the services provided by Higher Education institutions. Notably, areas for possible future research considerations were highlighted by this study.

Keywords: Higher Education, Customer Experience, Market Orientation, Co-creation

TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

Appendix A   Ethics approval letter from UCT

Appendix B   Demographic Profile Information of Masters' Student

Appendix C   Email sent to master's Students

Appendix D   Interview Consent Form

Appendix E   Interview Protocol Guide

Appendix F   Online Supervisor Survey

LIST OF ABBREVIATIONS

CIT	Critical Incident Technique
CS	Customer Satisfaction
CX	Customer Experience
HE	Higher Education
IMO	Individual Market Orientation
MO	Market Orientation
RBV	Resource-Based View
SD-Logic	Service-Dominant Logic
UoT	University of Technology

CHAPTER ONE: INTRODUCTION AND RESEARCH BACKGROUND

1.1 Introduction

This chapter begins with an overview of the context and background that frame the study. A discussion on the proposed rationale and background of this research study is also offered. This is followed by the statement of the problem, the statement of purpose, and accompanying research questions. A conceptual model for the study precedes the discussion about the selected research methods. In addition, explanations of the key terms associated with the research are discussed together with ethical considerations that were adhered to. The significance and contribution of the research from both academic and practical perspectives are highlighted, with the chapter culminating in an outline of the structure of the thesis.

In this thesis, students are the customers and the terms are used interchangeably throughout.

1.2 Rationale for the Study

Customer experience is being touted as a priority in most successful organisations (Kokins et al., 2021). Creating a strong customer experience is now a leading management objective (Roy et al., 2022; Lemon & Verhoef, 2016). The central idea is to expand the transaction-based notion of customer relationship to the continuous concept of customer experience (Gentile et al., 2007). Customer experience has arisen in response to the power of customers. With the advent of technology bringing with it increased customer touchpoints, customers now find that experience far outweighs just a level of customer satisfaction (Becker & Jaakkola, 2020; Lemon & Verhoef, 2016).

Experience is increasingly being seen as replacing quality as the competitive battleground (Klaus & Maklan, 2013). Customer experience goes way beyond the direct service encounter and encompasses all direct and indirect interactions – the entire customer journey (Roy et al., 2020). Carù and Cova (2003) found that whenever there is a financial exchange, a customer experience is produced. Universities, too, are recognising that students are also customers and that they need to provide an excellent customer experience across the student lifecycle (Hanover Research, 2015). Extant literature highlight the additional roles that students adopt during their studies, where they are active participants in HE, value co-creators, and partners in knowledge production (Dollinger et al., 2018; Braun & Zolfagharian, 2016; Goi et al., 2018;

Perello-Marin et al., 2018). Hence, universities also need to dedicate more resources and strategic efforts on delivering a more student-centric customer experience (Kokins et.al, 2021).

The universal debate about whether students are actually "customers" continues, with disparate views emanating from staff and students (Guilbault, 2018). Ironically, Mills et al. (2007) see universities as internalising the vision of students as customers, and claim that the contradiction of maintaining academic standards and customer satisfaction places unbearable demands on universities. Guilbault (2018) on the other hand, says that if students are not seen as customers, then Higher Education [HE from here on] institutions would need to revisit their conceptualisation of customer orientation). For the purpose of this research project, the student will be viewed as the "customer" at HE institutions.

HE globally is experiencing a vast and changing landscape, cuts in funding, and clamours for relevance and higher rankings (Hazelkorn, 2013). Hemsley-Brown and Oplatka (2006) confirm that in the context of increasing competition for home-based and international students, HE institutions now recognise the need to market themselves more aggressively. Universities are being forced to equip themselves with the necessary market intelligence and information that would enable them to face the challenges of such an international market for higher education (Binsardi & Ekwulugo, 2003).

Sutin (2018) posits that notwithstanding socio-economic, political and financial realities, many informed observers' express concerns about the gap between the changing needs and expectations of students and their actual learning experiences. HE institutions therefore need to look at their current operational and strategic environments to see if they match changing customer expectations. This entails developing more relevant and compelling institutional value propositions, where students are viewed as active players providing valuable feedback on design and delivery enhancements (Dollinger & Vanderlelie, 2020). Failure to do so can lead to disastrous consequences.

Numerous universities have developed research programmes and tools to measure student experience, engagement and satisfaction that offer insights into strategies to enhance student experience (Elliott & Shin, 2002). Understanding, managing, and measuring the student/customer experience is an advantageous approach which leads to competitive advantage and a long-term survival. The paradox, however, is the lack of sustained institutional commitment to providing adequate support to implement these strategies (Grayson, 2008).

Business and service organisations seek to achieve a competitive advantage in their dynamic environments by being market-driven, i.e., by anticipating, understanding and responding to the preferences and behaviours of customers (Jaworski et al., 2000). Kohli and Jaworski (1990), in their seminal article, defined Market Orientation [MO from here on] as follows:

"MO is the organisation-wide generating of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and the organisation's responsiveness to it." (p. 3).

The term MO evolved from Peter Drucker's (1954) "marketing concept" phrase. MO is seen as the operationalisation of the marketing concept by firms (Jaworski & Kholi, 1993). Firms adopt MO to ensure that superior value is created for their customers (O'Cass & Ngo, 2012). Conceptually, firms that practice a strong MO culture are well informed about their customers and are in a position to make informed decisions. Consequences of MO are organisation-, customer-, innovation- and employee-based (Jaworski & Kholi, 1993). Customer consequences include customer satisfaction, customer loyalty, and the creation of superior customer value (Javalgi et al., 2006). MO is placed centre stage, even before strategic thinking or segmentation strategies are planned.

The rise of digital technology has further enhanced the role of MO in firms, accelerating the interactions with a firm's products and services ultimately influencing customer choice (Grewal et al., 2020). Traditional thinking on MO sees customer satisfaction as a consequence eventually affecting performance and the bottom line (Hammond et al., 2006). In other words, customer satisfaction is the fruit that firms bear from practicing MO. However, in a world driven by technology, savvy customers and multiple touchpoints, can firms afford to ignore customer experience as a tool to enhance their competitive advantage and inform MO practice?

HE institutions are now viewing MO as a relevant strategy that can help them overcome the challenges in their environment; however, university activities are heavily dependent on a knowledge-based culture (Niculescu et al., 2016). Their missions, culture and structure require special treatment for strategy implementation (Bugandwa Mungu Akonkwa, 2009). The MO context and conceptualisation has been articulated from a developed country and commercial organisation perspective, hence the need for caution in transposing this strategy onto HE institutions in a developing country context, as in South Africa.

Whilst HE is not excluded from practicing MO and reaping its benefits, its changing landscape globally leaves many universities having to relook their student retention and student

satisfaction models. HE is being challenged by issues around funding, limited resources, and diverse student populations with a diverse range of needs. Consequently, HE institutions are being forced to relook their quality standards, the re-curriculation of programmes that are more demand/market driven, as well as addressing the increasing drop-out rate and improving on through-put rates.

Much of the strategic imperatives in HE are guided by extensive market research and benchmarking exercises. However, if institutions adopted a greater customer participative approach, i.e., if students were involved or partnered in the co-creation of their experiences (Marie et al., 2016; Marquis et al., 2017), this would better serve a diverse student population with divergent needs. This now places greater emphasis and discussion on how to access the "student voice" (Tomlinson, 2017). Thus, student success lies at the heart of the student experience (Coates et al., 2016).

This research proposes that it is customer experience that can influence all MO efforts institutionally. This is, therefore, an exploratory research project that sought to determine the role of customer experience in influencing MO in the HE context. This approach is seen as being more proactive, and offers a richer source of information for universities to deliver on superior value propositions. From this perspective, students are now positioned as experts or sources of knowledge, instead of the old MO narrative where they were just customers (Naidoo & Jamieson, 2005; Maringe, 2006). Elsharnouby (2015) posits that with HE institutions leaning towards marketization, there is greater interest now in how students could inform MO practice and university decision-making. This recent shift in mind-set has resulted in students being seen as partners, co-creators and co-informers of various programmes and opportunities that underpin the HE experience (Dollinger & Vanderlelie, 2020).

Hemsley-Brown and Oplatka (2006) have indicated that there is still much to be done in the context of postgraduate markets. Thus, this study focuses on postgraduate students, in particular, master's students.

1.3   Research Context: South Africa's Higher Education Sector

South Africa's 36 HE institutions, through a process of re-designations and mergers, (21 "traditional" universities and 15 technikons) were consolidated into 23. The HE sector now comprises eleven (11) "traditional" universities: provide theoretically-oriented university

degree programmes, six (6) "comprehensive" universities: provide a combination of both traditional Universities qualifications and Universities of Technology qualifications, and six (6) universities of technology: provide vocational oriented diploma and degree programmes (CHE, 2010a; https://www.southafricaeducation.info/higher-education).

HE is viewed as being key to social and economic development in South Africa (CHEC, 2016). In South Africa, HE plays an important role in bridging the skills shortage gap by producing qualified postgraduates through generating research and innovation (Fisher & Scott, 2011). There has been a widening gap in the system, precipitated by underfunding in the contexts of enrolment growth, increasing student expectations, and frustrations with respect to access and financial aid. A related observable trend, globally, is an academic profession under great stress (CHEC, 2016). The demands placed on academics, together with the variety of functions required of them, have resulted in new tensions and competing priorities (Temple et al., 2014). Institutional managers and their staff are sometimes having to deliver on opposing objectives. Academics are now challenged with producing measurable research output, seeing to the needs of a large, diverse student population, designing curricula that are more appropriate and responsive and, added to that, greater duties related to administration and reporting (CHEC, 2016).

Some of the major drivers within HE that have made change and continuous reinvention inevitable are digital transformation, financial crises, demands for lifelong learning, and new forms of knowledge, skills and competencies (Wangenge-Ouma & Kupe, 2020). This necessitates that universities remain relevant, competitive and sustainable. Globally, universities are grappling with strategies to increase throughput and minimise the dropout rates of postgraduate students (Zewotir et al., 2015). South Africa's postgraduate student enrolments and outputs are low and inadequate in relation to the country's economic and social development needs (Badat, 2010).

Students at universities of technology report significantly greater interaction with staff members than both the other institutional types (CHE, 2010), thus validating a university of technology as a research site for this study.

1.4 The Research Focus

1.4.1 The research problem

The problem that this research addresses is the possible incongruence between students' needs and the institutions' offerings. Whilst much focus is placed on enhancing quality-related issues at universities, how much focus is placed on the real issues that plague students? Given the various challenges that universities face in the present era (Badat, 2010), finding solutions to bridge this gap between expectations and delivery are a priority. Student experience is dynamic, given that students' expectations and priorities are ever-changing, as well as the transformation of student identity over time (James, 2002). Therefore, understanding and improving the postgraduate student experience is of critical importance if South African HE wants to produce the number and quality of graduates – and, ultimately, citizens – needed in the 21st century (CHE, 2010). Student experience that is well researched and documented can help address this gap. Traditional student surveys are pre-determined feedback questionnaires that are a snapshot of student satisfaction primarily concerned with measuring outcomes (Douglas et al., 2009). Student experience, on the other hand, goes beyond the service encounter; it is an all-encompassing approach that provides a richer, more textured view of students' experiences at the institution (Verhoef et al., 2009).

1.4.2 Statement of purpose and research aims

The purpose of this research was to examine the role of customer experience in influencing market orientation initiatives in a HE setting.

Consequently, the objective of this study is to determine whether focusing on customer experience rather than just evaluating customer satisfaction levels can be a greater source of information for guiding MO objectives and its implementation. The South African HE landscape has its own unique challenges, given the legacy of apartheid (Badat, 2009). Hence, a more holistic, student-driven approach can provide HE institutions greater leverage to remain competitive and attract student cohorts that add greater value to the knowledge creation pool. It is no longer acceptable to treat students as a homogenous group when transformation and diversity are being recognised as game changers and prior research indicates that there are differences in how different subgroups experience HE in South Africa (CHE, 2010).

Mokoena and Dhurup (2017) posit that South African HEIs have undergone major and rapid changes, thus requiring greater research into identifying and monitoring the consequences of MO. MO has been researched in terms of its importance and benefits to institutions, however

there is little research on the effects of MO within the university context (Chapleo, 2015; Merchant et al., 2015; Tran et al., 2015). Previous research has not fully clarified the perspectives and behaviours of individuals (research supervisors) involved in market orientation (Felgueiraa & Rodrigues, 2015); when individual employee perceptions and the operationalisation of MO is key in promoting a successful competitive advantage for HE institutions (Schlosser & McNaughton, 2007, 2009).

This study aims to gain a deeper insight into master's students' experiences as well as their ability to better inform MO implementation at institutions of HE. However, the postgraduate experience cannot be attributed to the student alone, nor the supervisor, nor the institution, since service experiences are the outcomes of interactions between organisations, their related systems and processes, service employees and their customers (Bitner et al., 1997). This research project therefore proposes that both supervisors and their students be included in the research study, to ensure that both key views are understood.

1.4.3. Key Research Questions

1.4.3.1 The primary question this research aims to explore:

How does Customer Experience (CX) influence the implementation of Market Orientation (MO) at Higher Education (HE) institutions?

1.4.3.2 Sub-questions

1] To what extent do supervisors of postgraduate students' implement a market-oriented (MO) strategy?

2] What are the experiences of students on the postgraduate program at Higher Education institutions?

3] What is the relationship between Customer Experience (CX) and Market Orientation (MO)?

1.5   Theoretical Background and Conceptual Model

The conceptual model proposes that CX influences MO implementation at HE institutions. Furthermore, research supervisors are seen as operationalising the MO concept, resulting in individual MO behaviour. Master's students are viewed as the recipients of this MO behaviour enacted by their research supervisors. The nexus of this cyclical relationship is the concept of

co-creation, theorised as a process that inspires continuous and quality interactions between students and institutions (Prahalad & Ramaswamy, 2004).

Koris and Nokelainen (2015) found that students expect to be treated as customers in areas such as student feedback, course design, and communication with administrative staff. Students are therefore aware that they need to take responsibility for their studies, that they cannot be passive. However, increasingly, their expectations are to be partners or influencers in the process, rather than mere subordinates (Newton, 2019). Taylor and Robinson (2009) reiterate the importance of the student voice as a 'project of ethical responsibility' that cannot be overlooked in university initiatives. Customer satisfaction, together with other approaches of evaluating customer perceptions of their experiences serve as supplementary building blocks to the overall understanding of customer experience and how it should be measured (Lemon & Verhoef, 2016).

Finney and Finney (2010) have suggested that the student as customer model may prove more successful when applied in conjunction with Service-Dominant Logic, where customers are viewed as co-creators. Thus, the two key theories that underpins this research are the resource-based theory and Service-Dominant Logic.

The underpinning theories, constructs and their hypothetical relationships are discussed in Chapters Two and Three. Figure 1 depicts this study's proposed conceptual model.
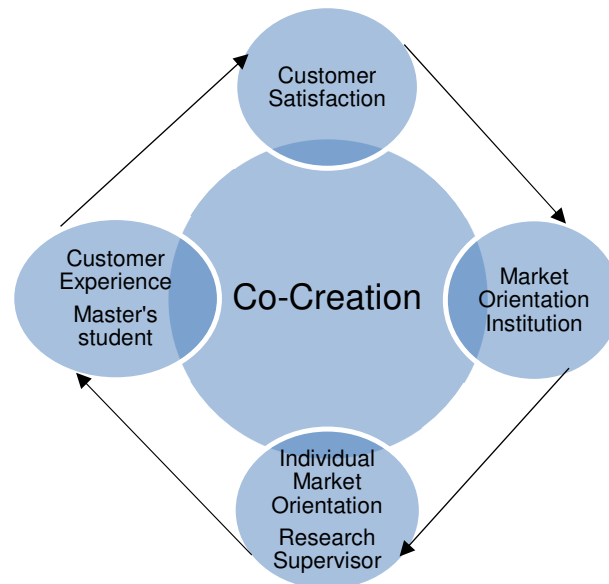
FIGURE 1: Proposed Conceptual Model
(Source: derived from the study)

1.6 Knowledge/Theory Gap

This study intends to make a contribution in the following four (4) areas:

1.6.1   Knowledge gap

1.6.2   Methodological gap

1.6.3   Managerial/ Practical gap

1.6.4   Societal gap

1.6.1 Knowledge Gap

There has been much research and debate around the meaning of MO (Jaworski & Kohli, 1996), the performance implications of being market-oriented, and the processes for achieving a market orientation (Crick, 2021; Morgan & Vorhies, 2018). The Marketing Science Institute recognises the importance of MO, and to date it remains a research priority (MSI, 2018). The current literature on MO offers little understanding of the market-oriented perspectives and behaviours of individuals within service organisations (Schlosser & McNaughton, 2009). This research is in response to that call

Ng and Forbes (2009) call for further research to understand an ideological gap that was identified, namely, "the difference between designing the service toward fulfilling students' expectations and designing the service toward what the institution believes the students should experience" (p. 54). Understanding this gap would be a means to better understand the HE student market. A special report on postgraduate students by Hegarty (2011) found an absence of research pertaining not only to graduate students in part-time programs but, moreover, to the presence of adult learners on these programs. This seems a lost opportunity: educational institutions that are equipped with knowledge about their different market segments can target the chosen ones with the appropriate value-proposition strategies (Kotler & Keller, 2007). A study of 1025 students in the USA found that the more satisfied students were with their education, the more the involvement with their own education (Finney & Finney, 2010). The study also found little evidence that students view themselves as co-producers of knowledge, but further research needs to be undertaken to state with certainty that this is representative of all students. Furthermore, a comparative study by the Council of Higher Education in South Africa found that students at universities of technology were significantly less satisfied than students at other types of institutions (CHE, 2010).

Much of this research has been undertaken within developed country contexts. Given the paucity of research, there has been a call for empirical research focusing on MO within developing countries (Mokoena, 2019). MO research has been undertaken in diverse country contexts, predominantly in developed countries, however a need exists within developing countries to research the determinants, properties and power of MO at HE institutions. (Hampton et al., 2009; Algarni & Talib, 2014; Khuwaja et al., 2017). Furthermore, measuring MO in the public HE sector of developing countries, outside of the United States, where the scale originated and was tested, is much needed. (Khuwaja et al., 2019). This would lead to more context specific dimensions of MO being identified, specific to each countries unique HE environment (Gupta & Kaushik, 2018).

Waqas et al. (2021) have most recently extended a call for research on customer experience in the context of developing countries. Developing countries such as South Africa, among others, present fertile ground for further research given their unique economic, social and cultural structures. The role of employees in creating a better customer experience should also be explored, where customers are part of co-creating their experiences (Lemke et al., 2011). This study seeks to take an important step towards an overall understanding of how customer experiences can be used as a co-creation mechanism to inform MO practice at HE institutions.

1.6.2 Methodological Gap

MO articles have focused on both qualitative and quantitative methods; marketing scholars recognise the benefit of mixing qualitative and quantitative research (Harrison, 2013). However, there exists a need for more mixed-method approaches (Harrison & Reilly, 2011). Isolated approaches can easily lead to incomplete conclusions (Lewis-Beck et al., 2003). Thus, an integration of methodologies might be an important direction for future research (Liao et al., 2011). This study focused on a mixed-method design with two (2) sets of respondents. Prior empirical research has measured MO in HE from either a quantitative or a qualitative perspective. This study comprised both a quantitative and qualitative approach. Qualitative interviews were undertaken to provide richer sources of data from student's actual experiences with the master's programme. The Critical Incident Technique (CIT) was used to evaluate the students' experiences.

CIT in HE provides a blank canvas for students to paint whatever picture they desire in terms of their actual experience – it informs the institution's decision-making process with regard to attempts to improve what is significant to students (Douglas et al., 2009). Thus, using a mixed-

method methodology with specific reference to CIT can be seen as addressing the methodological gap in MO research.

The individual MO (IMO) questionnaires of this current study were adapted from the original work of Felgueira and Rodrigues (2015). The authors had suggested that "the proposed scale adaptation matters be corroborated by empirical support" (p. 3023). Previous studies of MO were conducted mainly in developed countries (Niculescu et al., 2016), yet the nature of developing countries is quite dissimilar (Umrani & Mahmood, 2015); in the latter, the cultural, economic and societal differences need to be considered. Thus, the gap for validating University MARKOR [Kohli et al.'s (1993) MARKOR scale used to measure MO] still requires attention in the context of the developing world (Waqas et al., 2021). This, therefore, provides an opportunity to validate the psychometric properties of the IMO- MARKOR scale at HE institutions of developing nations. For this reason, this study empirically tested this questionnaire online, within the South African context of HE, thereby validating the research instrument.

1.6.3   Managerial / Practical Gap

Education is viewed as a service-driven institution where postgraduate research education is becoming increasingly competitive (Angell et al., 2008). Academics and policy-makers recognise the necessity for South Africa to progress from a resource-based economy to a knowledge-based economy as envisaged by the National Development Plan (Zarenda, 2013). HE institutions are charged with a responsibility to produce postgraduate students who complete their research projects timeously so that universities can enjoy the research subsidies from the Department of Higher Education and Training whilst yet being able to compete in the global research space. Universities in South Africa have been mandated with having to enhance the intellectual and social development of the students at those institutions (Wangenge-Ouma & Kupe, 2020). Institutional reputation and research service experience play important roles in promoting a conducive environment that supports timely throughput rates of postgraduate students who can transfer their knowledge and skills into sectors of the South African economy.

Enache (2011) has identified the need for a framework that provides relevant information and instruments to improve the market presence of any postgraduate institution. HE is progressively becoming more trans-disciplinary and trans-institutional in nature, hence the need to break through bureaucratically entrenched barriers and look, instead, through the "eyes of the student", where practical problems related to student experience insights can help shape

practice (CHE, 2010). This research aims to contribute to the conversation on how best to serve student/customer expectations within the postgraduate space with value-laden institutional offerings given the institution's resource constraints.

1.6.4. Societal Gap

HE globally has a mandate to increase research capacity across various institutions (Swartz et al., 2019). South Africa, in particular, lags behind in the world rankings in terms of research output; this is due to past inequalities. Previously, the South African government's funding model for HE was reliant on the intake of the number of students; however, funding is now dependent on student throughput (DHET, 2012). Universities of Technology (UoTs), in particular, have had to reposition themselves from having a strong teaching focus (a knowledge base focused on principles of practice) to being more research focused to remain competitive (Garraway & Winberg, 2019). This research project is positioned within the UoT sector of higher education, where capacity building initiatives are underway from both a student and staff perspective.

Presently South Africa has one of the lowest graduation rates at master's and doctoral levels: 15% less per year compared to most developed countries (Mouton, 2011). There has been a call from the CEO of Universities South Africa, Ahmed Bawa, for universities to build capacity for institutional research. Bawa strongly promotes the idea of creating high-level analytics to help universities understand who their students are and what their unique needs are, and how universities can redesign support structures to ensure student success. Bawa is of the view that it is time to heed the call to re-create universities as social institutions that address new realities and contexts (Bawa, 2018). The research in this thesis is in response to Bawa and others' call and is a timely contribution to address postgraduate customer experience as an influencer of more market-driven HE institutions.

1.7   Assumptions

A key assumption relates to the bias of the researcher; it is envisaged that the researcher is required to be objective at all times. The researcher of this study is an employee at a HE institution. To mitigate this issue, respondent validation and integration techniques were used to ensure that the researcher had correctly understood the perspectives and experience of the participants (Bell & Bryman, 2007).

The UoT chosen for this research study (University X from here on) was seen as a suitable data collection site where the researcher could gain better access to reliable data and respondents who would be willing to offer their voluntary participation.

1.8   Informed Consent and Research Ethics

The ethical considerations that pertain to the quantitative and qualitative method designs also pertain to mixed methods research (MMR) because MMR is a combination of the two designs. Quantitative studies require the researcher to obtain permission, protect anonymity, avoid disruption of sites, and communicate the purpose of the study accurately. Qualitative studies, on the other hand, require the researcher to communicate the purpose of the study accurately, avoid deceptive practices, respect the study population, respond to potential power concerns, and respect respondent confidentiality. All of these ethical issues are also ethical issues for MMR (Creswell, 2013a).

The details of University X were disguised and all respondent information was strictly confidential. The researcher obtained ethical clearance from the University of Cape Town Ethics Committee. Permission to conduct the research at University X was also granted.

1.9   Delimitations in the Study

This study was limited to one South African Higher Education institution. Furthermore, its' focus was limited to University X's masters' programme only. No doctoral students were part of the sample respondents. A smaller qualitative component was selected to allow for greater in-depth exploration as opposed to the larger quantitative component that endorsed more rigorous examination of the MO being practiced by research supervisors. Research supervisors and master's students across all faculties were included in the sample. For the qualitative data collection, the student sample size was limited to 24 interviewees.

The concept and operationalisation of MO was tested at an individual–level (research supervisors only) and not at an institutional level.

1.10   The Structure of the Thesis

Chapter One focuses on the research topic and the rationale for undertaking the current study. The chapter begins by describing the research background and the purpose of the study. The questions that drive this study are discussed, as is the proposed conceptual model. This chapter also highlights the theoretical, methodological and practical contributions of the research.

Chapter Two examines the key concepts and prevailing theories in the areas of Market Orientation (MO). This chapter will begin by defining the MO construct and its antecedents. The discussion that follows this provides MO's context within the Higher Education sector. A discussion on Individual Market Orientation (IMO) and the concept of research supervisors as operationalising MO will then be presented. The two key theories that this study is based on will be explained, and finally, the development of the conceptual framework will be presented. Empirical evidence from previous studies are reviewed, both generally and in the context of Higher Education.

Chapter Three describes the development of the Customer Experience (CX) construct. Section (3.1 and 3.2) will begin with defining CX, thereafter looking at the role and importance of CX and then rounding off with the determinants of CX. The next sections (3.3 onwards) situates CX within the context of Higher Education with a particular focus on the postgraduate master's programme. This is followed by an examination of students as customers, as well as of the role of the research supervisor in that context. Student satisfaction is then discussed, culminating in a discourse on co-creation and a short conclusion of the chapter.

Chapter Four describes and justifies the methodology adopted for this study. This chapter focuses on the key methodological decisions relating to the research philosophy, research approach, methods choice, research strategy, and time horizon.

Chapter Five includes the data analysis and results for the quantitative study. The chapter commences with explanations of the data screening process and statistical methods selected. Exploratory factor analysis is performed for each construct of the theoretical model in order to explore valid dimensionalities. A reliability analysis using Cronbach's alpha is applied to examine the internal consistency of the constructs.

Chapter Six focuses on the findings from the qualitative interviews as prescribed by the CIT protocol. This chapter firstly presents profiles of the master's students interviewed, followed by a short, succinct discussion on the challenges they faced. A deeper analysis ensues, presenting the students' identification of critical incidents that they felt either enabled or inhibited their progress on the master's programme. The chapter culminates in a summary of the students' 'wish-list' items, that is, their insights and suggestions on how the current practice, processes and systems could be improved to support a more positive overall experience.

Chapter Seven revisits the research background and conceptual model, then systematically discusses the findings related to the research questions. Notably, the findings are compared and contrasted to underpinning theories and prior studies in both developed and developing countries. Theoretical implications are clarified to consolidate knowledge. A new adapted model is then presented together with the key findings of this study.

Chapter Eight provides concluding remarks to the thesis, highlighting new insights and important contributions provided by the current study. The study's limitations are identified despite it having achieved its objectives, together with recommendations that are suggested for the institution. Chapter Eight concludes with suggestions for a wide variety of future research possibilities.

CHAPTER 2: LITERATURE REVIEW – MARKET ORIENTATION

2.1   Introduction

The purpose of this research is to determine the role of customer experience in influencing or directing market orientation initiatives in a Higher Education (HE) setting. The two main constructs of this study are Market Orientation (MO) and Customer Experience (CX).

This chapter will begin with the MO construct: defining Market Orientation and its antecedents. This will be followed by a discussion on Market Orientation within the context of Higher Education. A further discussion on Individual Market Orientation (IMO), linking this to the role of research supervisors, will then be presented. The two key theories that this study is based on will be explained and finally, the development of the conceptual framework will be presented. Empirical evidence from previous studies are reviewed, both generally and in the context of HE.

2.2   Defining Market Orientation (MO)

The meaning of MO (Jaworski & Kohli, 1996), the performance implications of being market oriented, and the processes for achieving a MO (Tajeddini & Ratten, 2020), have been the subject of much debate and research (Zebal & Goodwin, 2011). The Marketing Science Institute (MSI) recognises the importance of MO, and to date it remains a research priority (MSI, 2018). Peter Drucker (1954) is thought to be one of the earliest proponents of modern marketing. He suggested that the purpose of a company is to create a customer. Drucker advocated that firms should embody a guiding philosophy that positions the customer as the focal point of the entire company. Levitt (1960) was one of the first to coin the phrase "the marketing concept". He described this as a customer focused co-ordinated marketing effort and profitability, and in the same article suggested that MO could be the key to company success. Levitt (1977) further argued that the marketing concept recommended that being customer-oriented, rather than product-oriented, ensured business success.

Philip Kotler (1977) added to these ideas when he discussed what he believed it took for an organisation to be market oriented. Kotler suggested that MO includes: a customer-centric philosophy, an integrated, marketing-focused organisation, adequate market information, strategic orientation, and operational efficiency. Being market oriented is the responsibility of the entire firm (Kohli & Jaworski, 1993) and will lead to good business practices such as

operational efficiency (Morgan & Vorhies, 2018). It was not until the early 1990s that marketing academics began to empirically examine the assumption that the adoption of the marketing concept by an organisation would lead to improved performance. The term Market Orientation was used to describe the "operationalization" of the marketing concept by a firm. A variety of terms have been used interchangeably to address a market orientation, such as 'market-driven' (Day, 1994; Deshpandé et al., 1993); 'customer orientation' (Deshpandé & Farley, 1998; Shapiro, 1988; Webster, 1988); 'customer focus' (Deshpandé & Farley,1998); 'customer-focused', 'customer-oriented', and 'customer-centric' (Dursun & Kilic, 2017).

The underlying reason organisations adopt an MO is to ensure that superior value is created for their customers (Andreou et al., 2020). Pursuing a market orientation has a positive influence on customer service levels (Cole et al., 1993), customer retention (Narver & Slater, 1990; Balakrishnan, 1996), repeat business (Balakrishnan, 1996), and sales growth (Slater & Narver, 1994; Slater & Narver, 1996). There is also evidence that MO will lead to trust, cooperation, satisfaction, and commitment between channel members (Simpson et al., 1999).

In his seminal article, Shapiro (1988) questioned what it meant to be market oriented. It was important to provide a clear distinction between MO and marketing orientation. A marketing orientation is not one and the same as an MO, given that the scope of a MO is broader than that of a marketing orientation. Marketing orientation centres on investing resources in marketing departments primarily for promotions and marketing activities (Davis & Farrel, 2016), that is, it pivots on the marketing function of the organisation (Slater & Naver,1998). The focus is on a set of product-focused activities where, Shapiro (1988) says, customer expectations are not always met. MO, on the other hand, implies that marketing is the responsibility of all functional units in the organisation, not just the marketing function (Sargeant & Mohamad, 1999). MO organisations create superior customer value when the entire organisation embraces the values implicit therein (Slater & Narver,1998).

A number of scholars have offered different definitions and conceptualisations of MO. In early 1990, two main perspectives of MO emerged, a behavioural/process approach (Kohli & Jaworski, 1990) and a cultural perspective (Narver & Slater, 1990). Kohli and Jaworski (1990) viewed MO as a continuous rather than a dichotomous construct, where the measure of MO assessed the degree to which a firm is market oriented. The firm's MO is based on three (3) dimensions: information generation, dissemination of information and response to the market. A market-oriented firm ensures that all departments are involved in responding to market needs. In a study completed on large firms, Kohli and Jaworski (1993) documented empirical

evidence that a positive relationship existed between company performance and MO. The managers interviewed in the study agreed that a customer focus was the central element of a MO. Hence, the gathering of market intelligence which is based on information about exogenous factors affecting customer wants and needs as well as information about their current and future needs (Kohli & Jaworski, 1990) indicates a long-term-oriented view of MO.

Using a cultural framework, Narver and Slater (1990) perceived MO as consisting of customer orientation, competitor orientation, and inter-functional co-ordination. In 1994, Slater and Narver found that customer value could be created by ensuring/espousing core capabilities throughout the organisation (Slater and Narver, 1994). Four years earlier they had provided empirical evidence on the direct link between MO and Performance (Narver & Slater, 1990). In 1994, however, the two researchers found a direct positive relationship between MO and sales growth. And in 1998, their traditional Resource-Based View proposed that firms with superior MO would achieve superior performance due to a "know-what" advantage. This allowed managers to select the appropriate/productive available resources combinations to match market conditions (Slater & Narver, 1998).

Deshpandé and Farley (1998) offered a definition of MO that looked at a set of cross-functional processes and activities directed at creating customer satisfaction through continuous needs assessment. In the same year, Doyle and Wong (1998) found MO to be the second most important driver of a firm's performance – differential advantage was considered the first. Two years later, Lukas and Ferrell (2000) found the customer to be central to both the cultural and behavioural approaches of MO.

Ruekert (1992) identified three (3) components of MO:

1. Obtaining and using customer information.
2. Developing a strategic plan based on such information.
3. Implementing the plan to respond to customer needs.

A wide-ranging examination of the current literature on MO reveals that there has been no consensus among scholars on the definition of MO (Dursun & Kilic, 2017). Various scholars have conceded that the most comprehensive, informative definitions of MO were suggested by Kohli and Jaworski (1990), and Narver and Slater (1990).

TABLE 1: A Comparison of Definitions of Market Orientation (MO)

(1) Kohli and Jaworski (1990)	"Market orientation is the organisation-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisation-wide responsiveness to it."
(2) Narver and Slater (1990)	Market orientation is "the organisation culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and thus, superior performance for the business".
(3) Deshpandé, Farley and Webster (1993)	Customer Orientation (viewed as synonymous with MO) is "the set of beliefs that puts the customer's interest first while not excluding those of all other stakeholders such as owners; managers; and employees, in order to develop a long-term profitable enterprise".
(4) Day (1994)	"Market Orientation represents superior skills in understanding and satisfying customers."
(5) Deshpandé and Farley (1996)	Market Orientation is "the set of cross-functional processes and activities directed at creating and satisfying customers through continuous needs-assessment".

(Source: Dursun and Kilic, 2017)

Table 1 represents the reviews of five key definitions of MO presented by scholars. It highlights two differences among the definitions. First, each definition is based on one of the two alternative perspectives: a behavioural perspective or a cultural perspective. Kohli and Jaworski (1990) and Day (1994) adopted the behavioural perspective on MO, while Deshpandé et al. (1993), and Narver and Slater (1990) followed the cultural perspective. Second, Jaworski and Kohli (1996) believe that the terms 'market-oriented', 'market-driven', and 'customer-oriented' do not mean the same thing as MO because MO encompasses a larger set of market forces and stakeholders, not just customers, whilst the term 'customer oriented' emphasises only customers.

The similarities found in these definitions are that while all maintain an external focus, the central focus is the customer. All the definitions also exhibited a broader focus encompassing customers, competitors, technology, regulations, and other stakeholders. Finally, all the definitions agree on the importance of being responsive to customers' needs and wants, where

customer satisfaction is the central pillar of the approach (Dursun & Kilic, 2017; Herrero et al., 2018). Prior research suggest that MO is positively associated with customer satisfaction (Kohli & Jaworski, 1990; Slater & Narver, 1998; Wang & Miao, 2015).

Jaworski et al., (2000) rejected the definition of MO as an approach that mainly focused on existing or current customer needs/preferences; instead they posited that MO extends beyond the short-term current customers and competitors, to the broader forces that shape markets. MO is thus characterised as not only a reactive position to markets, but also a proactive position (Fernandes et al., 2020).

Market orientation has over 1000 academic articles written on this seminal concept that is conceptualised as an important attribute of a firms' corporate culture (Jaworski & Kohli, 2017). MO can therefore augment the firm's ability to adapt and respond to changes within the competitive environment (Andreou et al., 2020). Previous research points to MO being positively associated with performance (Narver & Slater, 1990; Jaworski & Kohli, 1993; Slater & Narver, 1994; Korschun et al., 2014; Kiessling et al., 2016; Tajeddini & Ratten, 2020).

The next section will deal with MO antecedents.

2.3 Antecedents of Market Orientation (MO)

It has been argued by Dutu at al. (2014) that antecedents are either enhancers or inhibitors to the MO process. Previous research has classified the antecedents of MO into three (3) broad categories: top management factors, inter-departmental factors and organisation systems (Jaworski & Kohli, 1993). These antecedents have now been extended to include amongst others, innovative culture (O'Cass & Ngo, 2007); supportive organisational cultures that boost intelligence gathering, employee involvement in decision-making that promotes a greater customer orientation (Seilov, 2015; Jogaratnam, 2017); competitive pressure (Kowalik, 2011); and informal relations between workers and appreciation of their work (Blankson & Nukpezah, 2019).

A study by Cervera et al. (2001) tabulates the various antecedents of MO.

TABLE 2: Antecedents of Market Orientation (MO)

ANTECEDENTS	AUTHORS
Senior management characteristics	
Emphasis on Market Orientation	Kohli and Jaworski (1990); Jaworski and Kohli (1993); Slater and Narver (1994); Pulendran and Speed (1996)
Risk aversion	Kohli and Jaworski (1990); Jaworski and Kohli (1993); Gounaris and Avlonitis (1997)
Attitude towards Marketing	Mokwa (1981); Bhuian (1992); Wood and Bhuian (1993)
Importance given to success factors	Gounaris and Avlonitis (1997)
Interactions with customers	Harris and Piercy (1997)
Organisational features	
Organisational size	McNamara (1972); Miles and Arnold (1991); Liu (1995); Llonch and Walino (1996) Tuominen et al. (1997)
Resources and capabilities	Wong et al. (1989); Dunn et al. (1994); Harris and Piercy (1997)
Organisational culture	Morris and Paul (1987); Miles and Arnold (1991); Bhuian (1992)
Entrepreneurship	
Organisational structure	
Centralisation, formalisation, departmentalisation	Kohli and Jaworski (1990); Jaworski and Kohli (1993); Liu (1995); Gounaris and Avlonitis (1997); Harris and Piercy (1997)
Marketing planning	Pulendran and Speed, (1996a, b)
Control	Jaworski and Kohli, (1993); Liu, (1995); Pelham and Wilson (1995); Borghgraef and Verbeke (1997)
Interdepartmental dynamics	
Conflict	Kohli and Jaworski (1990); Jaworski and Kohli (1993); Harris and Piercy (1997).
Connectedness	Wong et al. (1989); Kohli and Jaworski (1990); Jaworski and Kohli (1993); Harris and Piercy (1997).
Recruiting	Kohli and Jaworski (1990); Jaworski and Kohli (1993); Ruekert (1992)
Training	Kohli and Jaworski (1990); Ruekert (1992); Jaworski and Kohli (1993)
Reward system	Kohli and Jaworski (1990); Ruekert (1992); Jaworski and Kohli (1993); Widing et al. (1997)
External factors	
The environment (macro)	Selnes et al. (1996)
The environment (micro)	Dobscha et al. (1994); Greenly (1995a, 1995b); Gounares and Avlonitis (1997)
Perceived environmental turbulence	Davis et al. (1991); Bhutan (1992)

(Source: Cervera et al., 2001, p. 1264)

Top managers are instrumental in shaping the values and orientation of an organisation (Webster, 1988). The personal characteristics of the senior management team (mentioned in

Table 2), will be instrumental in deciding how market information is acquired, disseminated, and responded to (Cervera et al., 2001). Thus, developing MO requires top-management support, organisational departments that are inter-connected, market-based employee selection, retention, training, and reward systems to institutionalize it (Kohli & Jaworski, 1990; Ruekert, 1992). Divergent goals within departments can lead to interdepartmental conflict or tensions that can inhibit determined responses to market needs and thus diminish MO (Jaworski & Kohli, 1993). Employees can be rewarded by market-based reward systems, thus motivating employees to enhance their MO behaviour (Al-Henzab et al., 2018). MO training augments employees' awareness of customer needs, thus encouraging actions that are consistent with the requirements of MO (Ruekert, 1992).

Organisational characteristics can possibly hinder the adoption of the market orientation philosophy that promotes a more integrated and complex organisational structure, that is less formalized and centralized (Kohli & Jaworski, 1990). Formalisation and centralization are two variables that fall under organisational structure, where formalisation is about roles, procedures, and authority through rules (Olson et al., 2005). Jaworski and Kohli (1993) found an inverse relationship between formalisation and MO because the former inhibits a firms information utilisation, and thus the development of effective responses to changes in the marketplace. Centralisation, which limits the delegation of decision-making authority in an organisation, negatively affects MO by inhibiting a firm's information dissemination and utilisation (Matsuno et al., 2002).

Innovation has become an important requirement for being competitive in the current dynamic global marketplace, calling for the input of cross-functional, multidisciplinary sources of knowledge (Tajeddini et al., 2017; Hirunyawipada et al., 2010). Spanjol et al. (2012) found that MO enhances innovation, especially in service firms, where emphasis is placed on incorporating the "customer's voice" in all internal processes. Social media is now being viewed as a "marketing intelligence source", where customer behaviour can be viewed, analysed and predicted (Lamberton & Stephen, 2016).The internet and mobile technologies have been the primary force behind the rise of social media, providing technological platforms for information dissemination; content generation; and interactive communications. Social media is now an essential component of the next-generation business intelligence platform (Zeng et al., 2010). Platforms such as content sharing sites; blogs; social networking; and wikis are often used by customers. This represents the social media phenomenon, which can significantly impact a firm's reputation, sales, and even survival (Kietzmann et al., 2011).

With the advent of the internet and sophisticated mobile devices, social media plays an instrumental role in communicating with existing and potential customers because of its interactive, real-time capabilities (Chuang, 2020). Information gathered from social media has the potential to create value for an organisation (Sashi, 2012). Firms that closely monitor customers' needs often produce more meaningful, creative and original offerings (Keh et al., 2007), however the mere availability of information does not lead to an organisation attaining a stronger position than its rival/s. A deep understanding of customers' purchasing habits, psychological makeups and lifestyles can help firms to better segment and target existing and new niche markets (Keh et al., 2007). Latent needs that are not apparent to competitors might be uncovered. Being responsive to those latent needs provides the impetus to adjust the marketing mix accordingly (Jaworski et al., 2000).

Flexibility, adaptability and closeness to customers could provide the basis of a stronger MO, says Pelham (1999). Nguyen et al. (2015) found that social media facilitated the search and identification of the expression of customers' needs (both expressed and latent) more comprehensively than traditional means. It is thus important for service-driven firms to include social media as a knowledge acquisition tool, which would result in them becoming more market oriented from an outside-in perspective (Cai et al., 2015).

A study of MO within the context of Higher Education examined three antecedents: institution size (student enrolment), source of funding (public/private), and institutional innovativeness (Wasmer & Bruner, 2000). The most significant findings of Wasmer and Bruner's study indicated that the higher the degree of innovation an institution adopted, the greater its MO. Coetzee and Kets (2010) identified organisational culture as a significant inhibiting factor preventing the adoption of the MO concept in South African public institutions. While all of these are relevant in the HE context, however it excludes any co-creation opportunities for students to engage in.

2.4   Market Orientation in Higher Education

MO exploration in the context of Higher Education (HE) is a developing area of research at both a conceptual and operational level (Ross et al., 2013). To date there has not been a general agreement throughout the literature about a single definition of MO (Ross et al., 2013). One of the most important benefits of embracing MO in HE, shown by both Narver and Slater (1990) and Kohli and Jaworski (1990), is the increase in performance of institutions. However, HE

institutions still show low levels of MO and low levels of management emphasis on MO (Hammond et al., 2006; Camelia & Dorel, 2013).

A study of MO done by Mokoena and Dhurup (2016) at a South African university found that MO determinants were largely controlled by senior executives and marketing operatives. In 1998, Siu and Wilson had argued for the important role university management plays in creating and supporting more active participation in the implementation of MO. Hammond et al. (2006) likewise found that to a large extent, the application of MO as a strategy was contingent on university management.

Globally, companies are being forced to adapt to change. The dynamic environment they operate in requires flexibility in their strategic, organisational and operational thinking (Dutu et al., 2014). HE is not exempt from this, seeing that in some cases they operate in a quasi-market, where government plays a major role as to how they are expected to operate (Davis & Farrell, 2016). The HE sector is characterised globally by increasing student fees, increased competition from private providers, reduced governmental support and, most importantly, changing customer expectations. This calls for a reconceptualization of the student-university relationship and a re-interpretation of HE institutions' products (education) through the eyes of the student customer (Peralt-Rillo & Ribes-Giner, 2013). HE institutions wishing to sustain their existence need to accept that the student-university dyad has to evolve into a market-based customer model (Davis & Farrell, 2016).

MO has been suggested as being a highly effective means of developing student-university relationships as it is able to fulfil customers' (i.e., students') needs effectively (Clark et al., 2017; Flavian & Lozano, 2006). MO is a set of beliefs that puts customers' interests first but at the same time raises the HE institute's awareness of the need to obtain information about their competitors and to establish cross-departmental activities to satisfy customers'/students' needs in order to gain a competitive edge in the turbulent, competitive environments they operate in (Hemsley-Brown & Oplatka, 2010). HE institutions that consider students as customers will be more willing to consider delivery of education from the student perspective (Davis & Farrell, 2016). It is understood that HE institutions have a number of constituencies that cannot be ignored, namely, officials; employers; lecturers; students' parents; and the public at large. An MO in the HE context regards students as its most important constituent, thus extending efforts to satisfy their needs (Niculescu et al., 2016). In this paradigm, the student is seen as the customer (Guilbault, 2016).

A market-oriented university creates educational experiences that responsively satisfy student needs (Ng & Forbes, 2008) by exhibiting a customer orientation, competitor orientation and inter-functional co-ordination. Customer orientation (Narver & Slater, 1990) focuses on a deep understanding of the relevant target markets and the needs of prospective students and stakeholders, all tied in with a commitment to develop and deliver an educational experience of superior value. Academic rigour, research and relevance should not be compromised in any way. Instead, the university must display an agility that responds to the changing times, thereby providing a student experience that relates to students' present and future needs.

Market-oriented institutions pay careful attention to the voices of their customers, displaying a commitment to continuous market learning (Slater & Narver, 1998). Competitor orientation focuses on trends and insights within the sector. This information is then shared through the various functions and departments of the institution. Inter-functional co-ordination works on the premise that academic and administrative departments work together to achieve a common goal (Narver & Slater, 1990).

A number of additional benefits of the adoption of MO by HE have been reported in the literature, namely: potential improvement in enrolment rates; increase in student retention rates; greater future involvement from alumni and the business community; and the positive impact on research and teaching processes at universities (Santini et al., 2017; Webster, et al., 2013; Flavian & Lozano, 2006).

The ultimate goal of universities is to attract a greater number of students whilst still being able to satisfy their needs and aspirations. This requires a re-examining of internal operations, a means of identifying student satisfaction levels, and an ability to offer solutions that enhance student experiences whilst delivering a quality educational programme (Tran et al., 2015).

2.5 Individual-level Market Orientation

In this study, MO is conceptualised as an individual-level construct, where the Kohli and Jaworski (1990) MO model is adopted as the theoretical framework. In the HE context, this study focuses on the research supervisor's role as employee charged with operationalizing the MO concept.

HE institutions are being confronted by changing market forces that are exerting intense pressures (internal and external) on the management of these institutions (Rip, 2002; Kirp,

2003; Todorovic et al., 2005; Maringe, 2009; Bugandwa Mungu Akonkwa, 2009). Focusing on the institution alone ignores the underlying routines carried out by individuals who develop and shape the direction of MO (Nelson & Winter, 1982). Celuch et al. (2000) recognised individual psychological processes as a foundation for the development of MO at the organisation level.

This information-processing perspective represents MO as evolving from the generation and dissemination of, and response to, marketing information. There is a need to measure MO behaviour at an individual level, considering the fact that employees are given the responsibility of building organisational MO through their own actions (Schlosser & McNaughton, 2009). Figure. 2 represents a conceptualisation of the three components of MO (Kohli & Jaworski, 1990) in the HE setting.
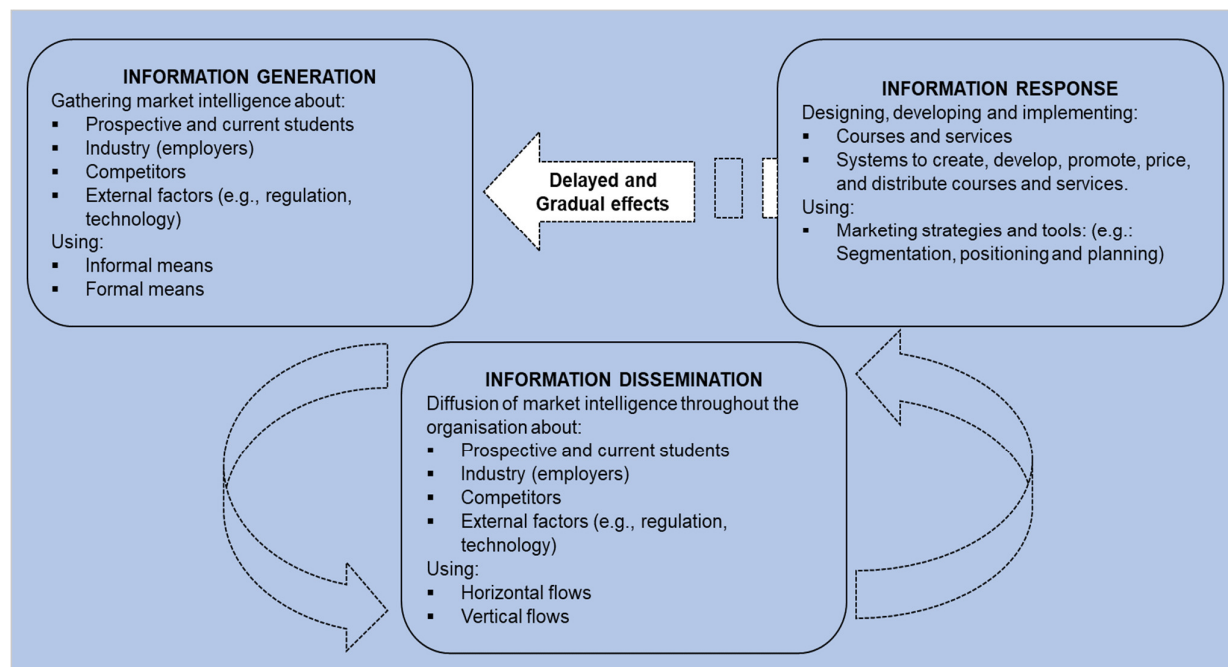
FIGURE 2: Conceptualisation of The Three Components of MO
(Source: Asaad et al., 2008, p. 3)

MO has been viewed from the cognitive, behavioural and cultural aspects of a firm's marketing concept, which puts the customer at the centre of the organisation and its development (Deshpandé & Webster, 1989; Harker et al., 2015; Kotler & Armstrong, 2013). Tran et al. (2015) posit that student satisfaction determines university survival, dependant on how valuable information from customers/student is managed. Frequently evolving customer

expectations and needs requires a constant monitoring and response, by operationalising the MO concept (Coffie & Hinson, 2022).

Kohli and Jaworski's (1990) conceptualisation of MO (market intelligence generation, dissemination, and responsiveness) is aligned with a dictionary meaning of orientation (identifying the actual facts and conditions and then responding appropriately to them) (Varadarajan, 2017). From figure 2 above, it can be seen that MO activities represent a continuous and cyclical process (Asaad et al., 2008). There has been an emphasis in the literature on using more context-specific measures of MO particularly at HE institutions (Turnes et al., 2017; Khuwaja et al., 2017; Niculescu et al., 2013) because universities place emphasis on formulating useful information as opposed to traditional "factors of production" (O'Neill & Palmer, 2004). The individual MO (discussed in Chapter 4) is thus more focused on a shift from a top management perspective to the individual post graduate researcher's perspective (Niculescu et al., 2016; Khuwaja et al., 2017).

Market intelligence relates to the current and future needs of customers; thus organisations differ in the extent to which they generate market intelligence, disseminate it internally, and take actions based on it (Kohli & Jaworski, 1990). This market intelligence, which is the starting point of MO, is information obtained/generated through both formal and informal means from the various stakeholders involved in the HE system (Hemsley-Brown & Oplatka, 2010). The process includes gathering market intelligence from customers, primarily: that is, prospective and current students, employing organisations and industry, monitoring marketing activities at other universities, and keeping abreast of shifts in the HE environment (Asaad et al., 2008).

The intelligence that is generated requires dissemination throughout the university through both a top-down and horizontal approach. Asaad et al. (2008) suggest that successful dissemination of important market information can be done via regular, scheduled interdepartmental meetings.

Responses to this information dissemination will in turn have an effect of generating greater information. This response action is a behavioural element of MO; however, if no action is taken, very little will be accomplished (Kohli & Jaworski, 1990). Thus, continuous monitoring of students' reactions seems necessary in order to establish whether those reactions are positive or negative. Generating further market information would naturally be a gradual process as students will experience the changes over a period of time and will probably only later express

their thoughts regarding the quality of those changes (Asaad et al., 2008). A key outcome of focusing attention on students and the HE industry as a whole is the augmentation of student satisfaction levels. Binsardi and Ekwulugo (2003) posit that increased levels of student' satisfaction will lead to the attracting of new students.

Varadarajan (2017, p. 29) postulated that the MO of organisations needs to be conceptualised as a point along a continuum, rather than as an absolute: that is to say, an organisation is either market oriented or not market oriented. The reason for this is that organisations differ in the ways in which they generate market intelligence, disseminate this information internally and then take action based on the information. This study approaches MO from a behavioural perspective where information or market intelligence is a central tenet (Kohli & Jaworski, 1990). This perspective places the focus on individual and organisational 'actions', rather than on what they profess they do. From a managerial perspective, focusing on tangible activities highlights potential areas of deficiencies in the MO of the organisation (Davis & Farrell, 2016). Thus, measuring the level of MO is an important indicator of how market oriented the organisation is.

In their 2009 study, Schlosser and McNaughton developed a multidimensional scale to measure MO behaviour among individual employees. Their view was that MO could only be adopted if each individual employee made the effort to acquire and share information, coupled with a proper strategic response to it. Therefore, individual employees need to take responsibility for gathering and assessing the value of market information and must be willing to share it with other employees (Schlosser & McNaughton, 2007). This view was endorsed by Baber et al. (2018) when identifying key components of individual MO, including information generation and dissemination, and strategic coordination among departments. Hence it is important that organisations understand how employees define and understand the behaviour of MO, as this is a key driver to promoting a MO (Schlosser & McNaughton, 2007, 2009).

Lam et al. (2010) proposed MO as an individual-level construct, describing it as a process that is socially acquired among employees at the individual level. In their study, top managers were identified acting as role models for low level employees (called envoys) and motivating them to practice MO at the individual level. Another study, by Niden and Johney (2011) found that individual MO resulted in enhanced employee performance. They similarly argue that initiatives at firm-level can influence employee-level cognition imperatives for accomplishing long-term success. Schlosser (2004) found that an individual employee greatly influences the strategic orientation of firms, as employees form market-oriented capabilities that enable the

institution to develop a sustainable competitive advantage. Lam et al. (2010) agree that individual level MO is where the marketing concept is practiced, creating value for the customer through expert knowledge and being more receptive to identifying solutions for customer problems.

A MO strategy cannot be developed without each employee's active understanding of the process (Schlosser, 2004). Felgueira and Rodrigues (2010) suggest that MO results in psychological and social benefits for employees. They found that the greater the degree of MO, the greater the esprit de corps, the greater the job satisfaction and employee commitment to the organisation. Previous research (Jaworski & Kohli, 1993) had found that the strongest driver of individual MO is a market-based evaluation and reward system.

Employees may be unwilling to act in market-oriented ways if they perceive an organisation to contribute at a low level or less than they as employees expect (Schlosser & McNaughton, 2007). This could manifest as a reluctance to be involved in organisational decision-making processes (Paul et al., 2000), and hoarding market information in anticipation of self-employment or employment opportunities with competitors (Harris & Ogbonna, 2001). Furthermore, employees may not feel obligated to develop strong customer relationships if they believe that in general, the company does not fulfil its obligations (Eddleston et al., 2002).

The following section will focus on the key theories underpinning this research study and the development of the conceptual framework.

2.6 Theoretical Framework

This section examines the theoretical lens that underpins this research. More than 60 empirical studies have adopted the resource-based view as their main theoretical framework (Kozlenkova et al., 2014), which is why this study adopted the resource-based view (RBV) as the overarching theoretical framework whilst employing Service-Dominant Logic (S-D Logic) as its theoretical base. The underlying principles of each theory will be discussed, together with the linkages to MO and CX.

2.6.1   Resource-Based View

The resource-based view (RBV) of the firm provides an important framework for explaining and predicting competitive advantage and performance outcomes (Barney et al., 2011; Vorhies & Morgan, 2005). Furthermore, RBV is able to integrate multiple diverse resources into one framework that is able to appraise the relative and synergistic effects of those diverse market-

based resources (e.g., building brands, relationships, and knowledge) on institutional performance (Kozlenkova et al., 2014).

The origins of the resource-based view (RBV) can be traced back to earliest research by Coase (1973), Selznick (1957), Penrose (1959), Stigler (1961), and Chandler (1962). Elements of the RBV can be found in these works, where emphasis is placed on the importance of firm resources and its implication for firm performance (Conner, 1991; Rumelt, 1984).

In 1959, Edith Penrose was one of the first scholars to recognise the link between resources and a firm's competitive position. She argued that a firm's growth was linked to the ways in which its resources were deployed (Penrose, 1959). Rubin (1973), was one of the few scholars to conceptualise firms as resource bundles, arguing that firms require raw resources to be processed in order to make them more valuable.

It was Wernerfelt (1984) who formalised the RBV in his statement that for the firm, resources and products are two sides of the same coin. He proposed that firms could earn above normal returns by identifying and acquiring resources that are critical to demanded products. This point was clarified by Barney in 1986, whose study involved a firm whose performance was being driven directly by its products and indirectly by the resources that went into their production. Widespread support for RBV was garnered several years later through the publication of two papers. In the first, Prahalad and Hamel (1990) argued that the task of managers was to create radical new products through exploiting core competencies. The focus was not just on static resources, but also on the factors that facilitated their deployment e.g., skills, knowledge, technologies, etc.

The second influential paper, by Jay Barney (1991), was recognised as the first formalised theoretical framework of RBV. Two (2) fundamental assumptions were proposed: first, that resources and capabilities are heterogeneously distributed among firms, and that they are perfectly immobile. Second, that firms possessing resources that were valuable and rare would attain a competitive advantage and enjoy improved performance in the short term (Barney, 1991).

The most notable critique of Barney's (1991) expression of RBV were by Priem and Butler (2001), who bring to attention the static nature of much of the subsequent literature. Barney's interpretation of how resources are processed to result in competitive advantage remain in a black box (Barney, 2001). In 1992, Mahoney and Pandain reminded scholars that a firm, "may achieve rents not because it has better resources, but rather, the firm's distinctive competencies

involve making better use of its resources" (Penrose, 1959, p. 54). Peteraf (1993) agreed with Mahoney and Pandain (1992) that if any given firm were to maximise its financial yield, valuable resources would have to be properly leveraged or managed.

Winter (1995) added to the discussion on RBV by saying that firms also needed to possess and replicate webs or routines of relationships through which deployment and co-ordination of resources could take place. In 2000, Eisenhardt and Martin proposed "dynamic capabilities" to be the organisational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve. and die (Eisenhardt and Martin, 2000). These authors reaffirmed that the latent value of resources could only be made available to the firm via its idiosyncratic dynamic capabilities (Newbert, 2007). Day (2011) further suggested that in the marketing domain, 'adaptive marketing capabilities' would allow firms to anticipate trends and events before they were fully apparent, and then adapt effectively.

A great deal of theoretical work has emerged about the types of processes that resources could be subjected to in order for firms to exploit their latent values. Table 3 below highlights some of the key contributions as cited by Newbert (2007).

TABLE 3: Resource Configurations

Author	Resource configuration
Reed, and DeFillippi (1990); Fiol (1991)	Competencies
Leonard-Barton (1992)	Core capabilities
Kogut and Zander (1992)	Combinative capabilities
Lado, Boyd, and Wright (1992)	Transformation-based competencies
Amit and Schoemaker(1993)	Capabilities
Russo and Fouts (1997)	Organisational capabilities

 (Source: Newbert, 2007, p. 124)

Subsequently, Barney (2002) introduced a new theoretical framework that argued for the organisation of a firm to have a firm-level orientation, strategy or context that encouraged a general or unified approach to the utilisation of its resources (Newbert, 2007). A second, more radically new theoretical model, the dynamic capabilities framework, was introduced by Teece et al. (1997). This framework explains how combinations of competencies and resources can be developed, deployed and protected. A dynamic capability has been described as a firm's ability to integrate, shape and reconfigure its resources and capabilities to respond to rapidly changing environments (Teece et al., 1997).

The RBV has evolved from a static perspective to one where a more dynamic approach is needed to enhance firm performance and enjoy competitive advantage. Acedo et al. (2006) identified three main trends that coexist within RBV:

1. Resource-based view (RBV)

2. Knowledge-based view (KBV)

3. The relational view

This is the case for the dynamic capabilities approach (Teese et al., 1997; Nelson & Winter, 1982) which has materialised as the nexus between the classic works of RBV and the most recent studies of the KBV. Market-based assets are primarily of two related types: relational and intellectual.

Firms are presented with opportunities to overcome marketplace heterogeneities in demand (customer preferences) and product supply (Hunt, 2000). A MO strategy is such an opportunity that advocates for the systematic acquisition, dissemination, and use of information to guide strategy development and implementation (Kohli & Jaworski, 1990).

Relational assets are external to the firm; intangible; and difficult to measure, encompassing factors such as trust and reputation (Srivastavaa et al., 2001). Organisations are offered opportunities to establish intimate relationships with customers so that they may in time be relatively rare and difficult for rivals to replicate. The relational view is an extension that considers networks and dyads of firms as the unit of analysis to explain relational rents.

In this study of how, and indeed, whether CX influences the MO of a HE institute, the resource-based view (RBV) was applied as the overarching theory. MO can be positioned within the RBV of the firm, where the focus is on internal resource arrangements and institutional value creation (Schlosser & McNaughton, 2009). RBV helps explain how a market-oriented organisation can outperform its competitors. Bell (1973) maintained that MO behaviours provided information resources that were important for a firm's success. Ludwig and Pemberton (2011) have expressed the view that any firm operating in today's dynamic external business environment needs to focus on competitive survival and their capabilities. Using a lens of Kotler's (2000) marketing concept, the demand side of market conditions entails transforming a firm's resources into an offering that customers can view, experience and purchase instead of the competitors' offering (Srivastavaa et al., 2001). This simply translates into a customer-based advantage.

The capabilities/ resource-based view perspective (Wernerfelt, 1984; Barney, 1991) is proposed as a meaningful framework to further develop the understanding of MO in the context of HE. Application of the RBV framework indicates the need to look at integration of resources in a way that permits them to be leveraged (Williams, 2014). HE institutions act as resource integrators to facilitate experience creation by providing fertile experience environments (Jain et al., 2017). Universities are competing for research funds, top faculty, and top-quality students to advance their reputations of excellence (Powers & McDougall, 2005). Li et al. (2011) explicate that universities' rankings act as proxies for their pool of academic talent. Higher rankings are a result of superior academic talent that produce superior research and publication performance. Thus, a critical human capital resource is the expertise, knowledge and talent of a university faculty that are a likely source of competitive advantage.

It can thus be said that while possessing resources that are valuable, rare, inimitable, and organisational (VRIO) may be beneficial, firms still require complementary capabilities that match the business environment to drive performance (Helfat, 1997). In line with previous theorists on RBV, it can be argued, then, that the recognition of customers and brands as relational market-based assets, marketing knowledge, customer-driven culture, and MO (Kohli & Jaworski, 1990) as market-based intellectual assets, can be enabling in helping HE institutes succeed in achieving their multi-stakeholder goals.

This current study also draws upon a marketing perspective known as Service-Dominant Logic.

2.6.2 Service-Dominant Logic

Customer experience is grounded in the theories/works of consumption experience (Holbrook & Hirschman, 1982), experience economy (Pine & Gilmore, 1998), co-creation experiences (Prahalad & Ramaswamy, 2004) and Service-Dominant Logic (Vargo & Lusch, 2004, 2008) All these theories provide sufficient ground for developing the customer experience concept (Jain et al., 2017). Three (3) key theoretical perspectives in the extant literature have been used previously to explore and understand the customer research phenomenon. They are as follows:

1. **The Flow theory:** This conceptualised customer experience as a cognitive state that occurs in an internet setting (Carù & Cova, 2003; Schouten et al., 2007; Bridges & Florsheim, 2008).

2. **Stimulus-Organism-Response (SOR) framework:** this conceptualised customer experience as a mental state that leads to specific behaviours under the influence of specific factors called stimuli (Jacoby, 2002; Zhang et al., 2015).

3. **Service-Dominant Logic (S-D Logic):** S-D Logic views the role of the customer as a proactive contributor to the creation of experience, rather than as a passive receiver of experience (Vargo & Lusch, 2008).

This research is situated within the Service-Dominant Logic (S-D Logic) theory, where CX is observed as responses and reactions to consumption processes (Becker & Jaakkola, 2020).

Recently there has been an increasing trend to view CX from a customer culture theory perspective (Waqas et al., 2021), but there still exists a dearth in the research on the application of this theory to customer experience. Customer culture theory, like S-D Logic, recognises the important role of customers in defining their experiences, however this theory has mainly been used to explain customer experiences with stimuli on social media. (Tafesse, 2016). Waqas et al. (2021) also looked at the Technology Acceptance Model (TAM), where customer experience is influenced by the interactive applications, and elements on a website (e.g., Morgan-Thomas & Veloutsou, 2013; Nysveen and Pedersen, 2004).

Services marketing is beginning to achieve a wider impact, as Rust and Huang (2014) recently commented, so that in time, all of marketing will start to resemble the area of service marketing. It was in the mid-1990's that Vargo and Lusch (2004) first outlined a framework called Service-Dominant Logic (S-D Logic). S-D Logic represents a dynamic narrative of co-creation through resource integration and service exchange. S-D Logic provides HE with a vision where the role of universities is to manage the bundle of resources provided by all actors, resulting in a valuable learning service and positive student/customer experience (Díaz-Méndez et al., 2019).

The core ideas around S-D Logic are as follows:

1. Service-for-service exchange: the activities emanating from specialised knowledge and abilities that people do for themselves and others, and the activities they want done for them, represent the source of value and thus the purpose of exchange.

2. Value is co-created, rather than created or generated by just one actor, and is then delivered (Vargo & Lusch, 2017).

Recently, in elaborating this framework, institutions have moved to the forefront in value co-creation. Vargo and Lusch (2017), have captured five (5) core foundational premises (illustrated in the table below), which are referred to as axioms.

TABLE 4: 5 Core Foundational Axioms of S-D Logic

1.	Service is the fundamental basis of exchange.
2.	Value is co-created by multiple actors, always including the beneficiary.
3.	All social and economic actors are resource integrators.
4.	Value is always uniquely and phenomenologically determined by the beneficiary.
5.	Value co-creation is co-ordinated through actor-generated institutions and institutional arrangements.

 (Source: Vargo and Lusch, 2017)

S-D Logic emphasises the importance of co-creation, whereby the customer is seen as a co-creator of value and where the brand subsequently becomes the experience (Prahalad & Ramaswamy, 2004). Co-creation has an important role to play in seeking to develop an understanding of customer experience. When a co-creation approach is adopted, the customer is engaged in a dialogue and interactions through the entire customer journey. Branding exercises are seen more as about building processes to support the customer experience (Frow & Payne, 2007).

S-D Logic has been used to analyse HE service aspects, such as the importance of pedagogy over technology in HE provision (Bowden & D'Alessandro, 2011); the change in the focus of the marketization debate to a co-creation approach (Judson & Taylor, 2014); assessing lecturers' performance by the use of student satisfaction surveys only (Diaz-Mendez & Gummesson, 2012); identifying types of value expected by students from universities (Dziewanowska, 2017); and the degrees of co-creation experiences lived by international students in university-student-community engagement (Fleischman et al., 2015).

In the case of HE, students who perceive themselves as customers are more likely to be co-producers in the educational service, and this makes them actively involved in their education. Hence, student success can be thought of in conjunction with Service- Dominant logic (S-D Logic) and the view that customers are co-creators of the service (Finney & Finney, 2010). Ng and Forbes (2009, p. 40) postulated that "the core service" in a university experience is a "learning experience" that is the co-creation of the people within the university – between students, students and teachers, students and administrators, etc. Learning requires the

engagement of the student (Hamm, 1989), as education is not passive and thus requires student commitment for success (Finney & Finney, 2010). This perspective mitigates the arguments that students are (not) customers (Guilbault, 2016).

S-D Logic adopts a resource-based perspective of marketing (Vargo et al., 2010) where institutions and their customers hold different types of resources, both tangible and intangible, which need to be integrated in order to co-create value (Arnould et al., 2006). Students are seen as customers possessing operant resources (eg., skills, capabilities, knowledge, initiative and imagination) that are integrated with the universities' resources and its staff (Madhavaram & Hunt, 2008), which results in the co-creation of experiences and their own value (Chalcraft & Lynch, 2011).

The main actors in the value co-creation process are teachers and students, thus resource integration is facilitated by repeated interactions between and among the parties (Díaz-Méndez et al., 2019). Students are expected to actively engage with their learning process (Nystrand & Gamoran, 1991), thus, value created for students is not only dependent on the quality of the teachers' resources, but also on the students' resources (means and abilities to learn). This implies that all the parties involved need to be engaged in the learning process, because without engagement, there will be no resource integration, and consequently, no co-creation (Storbacka et al., 2016). HE is entrusted with providing service to society and communities; however, value has to be co-created with students (Bitner et al. 2012). This perspective implies that universities have to ensure that they provide students with the best learning experience, but also that students are protagonists in their education' (Díaz-Méndez et al., 2019).

In the South African context, it is first necessary to establish whether MO is indeed being practiced at a HE institute and, more importantly, to what degree. Hence this research will assess the degree to which MO is practiced at University X.

2.7   Conceptual Model

In response to the research questions and objectives, the proposed conceptual model examines the relationships between Market Orientation (MO) and Customer Experience within the context of Higher Education, in South Africa. The conceptual model was developed by integrating the key components of two underpinning theories: resource-based view (RBV) and the theory of Service-Dominant Logic (S-D Logic).

A conceptual framework, Figure 3 depicted below, shows the progression of a linear, sequential relationship between MO antecedent, MO Culture, MO implementation and the resulting MO consequence.

Customer → MO Culture → MO → Customer Satisfaction
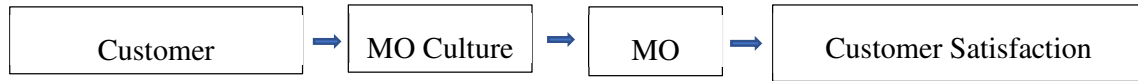
FIGURE 3: Linear Model of Market Orientation
(Source: Adapted from Kohli & Jaworski, 1990)

Asaad et al. (2008) theorised market-oriented activities as a continuous and cyclical process. Hence, this study advances the relationship to a cyclical one. Customer Experience has been conceptualised as encompassing the following features: phenomenological in character; process- and output-based experience; functional/rational and affective/emotional responses or perceptions are internal, subjective and unique; co-creation involving individuals and institutions; holistic evaluation as an integrated set of activities resulting in performance such as perceived value, customer loyalty and customer satisfaction (Jain et al., 2017). MO is characterised by its co-ordinated approach that transcends beyond the short-term current customers and competitors to the broader forces that shape markets (Jaworski & Kohli, 1996). S-D Logic endorses the position that positive customer experiences result from institutions managing the bundle of resources provided by all actors, thus resulting in co-creation (Diaz et al., 2109), rather than from a unidirectional relationship. Consequently, the model proposed in this study is cyclical and not sequential in nature, with moderating factors – namely, individual MO and customer satisfaction.
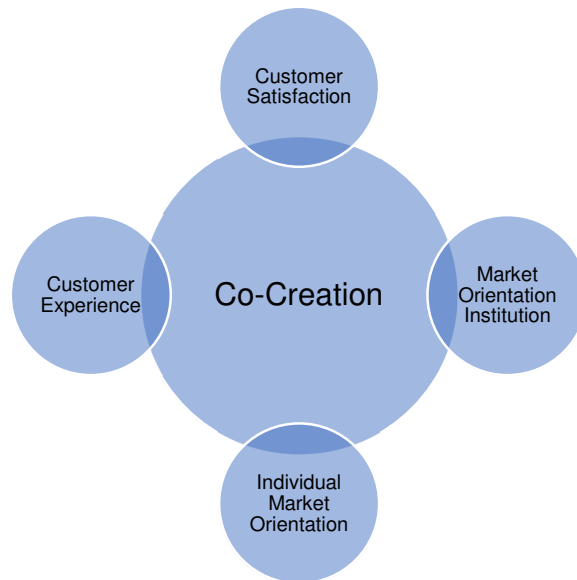
FIGURE 4: Basic Conceptual Model Proposed for the Study
(Author: derived from the study)

2.8   Conclusion

This chapter presented a literature review of the MO construct, its antecedents and, finally, the application of the construct to the HE context. The two key theories that underpin this study – RBV and S-D Logic – were discussed. A conceptual model guided by the theories underpinning this study, was presented. The next chapter will cover the Customer Experience (CX) construct, together with the concepts of co-creation and customer satisfaction.

CHAPTER 3: LITERATURE REVIEW – CUSTOMER EXPERIENCE

3.1 Introduction

A valid argument for the practice of customer experience (CX) is the emergence of the experience economy, experiential marketing practices and growing customer expectations for the provision of holistic experiences (Jain et al., 2017). The first two sections (3.1 and 3.2) will begin with defining the construct customer experience, thereafter, looking at the role and importance of customer experience and then rounding off with the determinants of customer experience. The next sections (3.3 onwards) look at customer experience within the context of Higher Education. Here the discussion opens by situating this research study within the postgraduate context in Higher Education (HE). This is followed by a discussion on students as customers and the role of the research supervisor. Student satisfaction is then expanded upon, culminating in a discussion on co-creation and a short conclusion of the chapter.

The use of the word student/customer is used interchangeably throughout this thesis.

3.2 Customer Experience

3.2.1 Defining Customer Experience

Customers will always have an experience when interacting with a firm, be it good, bad or indifferent. The increasing focus on Customer Experience (CX) has arisen because customers now interact with firms through multiple touchpoints, resulting in more complex customer journeys (Lemon & Verhoef, 2016). Traditional product/service unique value propositions are not enough for reaching customers or creating differentiation any longer; firms need to focus on CX to create a seamless total experience (Carbone & Haeckel, 1994). Thus, Grönroos (2006) elucidates that customer value cannot be created by one element alone, but rather by the total experience of all elements. CX is central to value creation, innovation, strategy, and executive leadership (Ramaswamy, 2011).

There are multiple divergent perspectives and definitions of CX in the extant literature, and there is therefore a need to be explicit about what exactly is meant by the term 'customer experience'. Abbot (1955) and Alderson (1957) focused on the notion that people really desire satisfying experiences, not just the products themselves. In the 1980s, experiential theorists Holbrook and Hirschman (1982) recognised the emotional aspects of experience. Pine and

Gilmore (1998) distinguished customer experience as a memorable 'event' that a customer purchases from a company that wants to engage him/her in an inherently personal way. These experiences are personal responses occurring only in the mind of an individual when being engaged on an emotional, physical, intellectual, or even spiritual level. CX has been variously described as anything from something extraordinary (Arnold & Price, 1993), to mundane (Carù & Cova, 2003), whilst other authors focus on context specific definitions such as service encounters (Kumar et al., 2014), and even manifestations in the customer's lifeworld (Chandler & Lusch, 2015).

Broader definitions define CX as encompassing every aspect of a firm's offering – the subjective and internal response customers have to any direct or indirect contact with a company (Meyer & Schwager, 2007). Berry and Carbone (2007), on the other hand, proposed that firms needed to build an emotional connection with their customers by creating sensory-stimulating, consistent, authentic total customer experiences that resonated and at the same time differentiated their firms from their competition. Scholars and practitioners have come to agree that total CX is a multi-dimensional construct that involves cognitive, emotional, behavioural, sensorial, and social components (Schmitt, 1999; Verhoef et al., 2009).

The Marketing Science Institute (2016, 2018) views CX as one of its most important research priorities, whilst Lemon and Verhoef (2016) consider it in a promising state justifying more scholarly attention. The Marketing Science Institute (MSI) acknowledged three basic tenets of CX: The first is that CX is interactional in nature. These interactions are between the customer and a set of market actors, through human and non-human interfaces. So, simply put, without interaction there is nothing to experience (Pollio et al., 1997). The second basic tenet relates to the uniqueness of every CX, varying from the ordinary or mundane to the other end of the continuum, that is, extraordinary (Bhattacharjee & Mogilner, 2014). The third tenet points to the multidimensional nature of CX, where five (5) elements are identified, namely, the cognitive, emotional, physical, sensorial and social elements (Brakus et al., 2009). These elements are interrelated to form a unitary CX, which can vary across contexts and the situation that the customer is confronted with (De Keyser et al., 2015).

CX has been approached from both a process as well as an outcomes basis. Palmer (2010) and Schmitt (2010) have described experience(process) as ongoing perceptions, feelings and direct

observations, or a process of learning resulting in learned responses. Conversely, from an outcome perspective it refers to the accumulation of knowledge, skills, emotions, sensations, and attitudes. Thus, research suggests that CX is both a formative construct representing interactivity with environmental elements, as well as a reflective construct involving customers' expressions of their responses (Jain et al., 2017).

Most recently, Becker and Jaakkola (2020) conducted a meta-theoretical analysis that situated CX within eight (8) literature fields. Table 5 below is a summary of the fields studied within the Marketing literature.

TABLE 5: Customer Experience Within 8 Literature Fields

Literature Field	Main Goal	Definition/Delineation	Level of Aggregation
Services marketing	Improving customer experience through service encounter elements	Individual assessment, response, or reaction derived from the customer's interaction with any direct or indirect contact with a firm's physical environment, employees, other customers, core service, or other aspects related to service delivery	Dyadic: customer experience emerges in the service encounter, sometimes involving other customers
Consumer research	Focusing on the symbolic meaning and experiential aspects of consumption experiences	Personal, subjective experiences that emerge from the interactions between the consumer and objects, environment, or other people. Experiences are emotional, hedonic, non-routine, and sometimes transformational, holding symbolic meaning, a sense of community, and flow.	Systemic: customer experience emerges during the entire consumption process (not necessarily market-related), involving at least other consumers.
Retailing	Improvements to what customers experience through a focus on the whole marketing mix	Subjective responses that customers have to direct (e.g., physical environment, merchandise) or indirect (e.g., communications) interactions with the retailer	Dyadic: customer experience emerges during the set of interactions with a retailer, sometimes involving other customers.
Service-Dominant Logic	Focus on a consumer-centric, holistic view of the customer experience and the emerging value-in-use	A subjective phenomenon emerging through responses to the holistic service process; experiences are co-created among many actors involved in resource integration, embedded in context, and connected with value	Systemic: customer experience emerges in dynamic service ecosystems, involving many actors.
Service design	Customer experience improvements through the design of the service process throughout the customer journey	Internal and subjective responses to all interactions a customer has with a firm across touchpoints during the customer journey; many parties co-create the customer experience.	From dyadic to systemic: customer experience emerges during the entire customer journey, sometimes involving many providers.
Online marketing	Focusing on online elements to improve the customer experience	Psychological state, perception, assessment, or subjective response derived from the customer's interaction with the online object, including	Dyadic: customer experience emerges during interactions with online settings, sometimes involving other customers.

		functional, affective and social attributes and responses, as well as a sense of flow.	
Branding	Use of brand-related stimuli to improve the customer experience	Subjective and internal responses to interactions a customer has with brand-related stimuli (e.g., brand design and identity, communications, and packaging)	Dyadic: customer experience emerges during a set of interactions with a brand, sometimes involving other customers.
Experiential marketing	Creating engaging offerings by ensuring a memorable experience	A type of offering (memorable event or episode) that engages the customer in a personal way. Firms stage the experience through a theme given life by tangible and intangible cues, throughout a customer journey.	Dyadic: customer experience is offered during the set of interactions in a customer journey.

(Source: Adapted from Becker & Jaakkola, 2020)

The table above highlights the differences of the CX phenomenon in terms of nature and scope. The scope ranges from;" narrow and dyadic to a broader ecosystem view", (Becker & Jaakkola, 2020)**.** The prevailing view within most of the fields above indicate that CX is a response/reaction to a certain stimulus (the product); however, an alternate view by experiential theorists view the offering (or product) itself as the experience. This research is situated within the Service-Dominant Logic (S-D Logic) theory where CX is observed as responses and reactions to consumption processes (Becker & Jaakkola, 2020). This is in contrast to viewing CX as a response/reaction to managerial stimuli, which is found in the experiential marketing, services marketing, retailing, branding and service design. Within these traditions, the focus is on firm-controlled stimuli. S-D Logic has its focus on any stimuli within the entire service eco-system embedded in a customer's lifeworld (Chandler & Lusch, 2015). This places greater emphasis on the customer context, goals and institutional arrangements (Akaka & Vargo, 2015), thus confirming that CX is context-specific and subjective in nature.

Experience according to the first position of CX as a response/reaction, may relate to a specific aspect of the offering, such as technology (McCarthy & Wright, 2004), the brand (Brakus et al., 2009) or at touchpoints, where there is individual contact between the firm and the customer at distinct points in the experience (Homburg et al., 2017). These experiences are built up through a collection of touchpoints in a customer's multiple-phased decision-making process or purchase journey (Verhoef et al., 2009).

In their extensive literature review on CX, Becker and Jaakkola (2020) highlight three (3) key contingency areas/groups which can affect how CX is perceived. See Table 6.

TABLE 6: Contingency Areas/Groups that affect Customer Experience Perception

Customer Contingencies		Situational Contingencies		Socio-cultural Contingencies	
Personality, values and socio-demographic characteristics	Holbrook and Hirschman, 1982	Related to the context in which the customer interactions take place	Lemke, Clark, and Wilson, 2011	Systems of language, practice and meanings that customers are embedded in	Schembri, 2009
Resources such as time, skills and knowledge	Novak, Hoffman and Yiu-Fai, 2000	Presence of other stakeholders that contribute to the experience	Tax, McCutcheon, and Wilkinson, 2013	Societal Norms and rules	Akaka and Vargo, 2015
Past experience and expectations	Verhoef et al., 2009				
Fit of offering with customer's lifeworld	Schmitt 1999				

(Source: Becker & Jaakkola, 2020)

These stimuli can act as moderators, making certain stimuli more or less recognisable (Juttner et al., 2011). Secondly, these contingencies can be seen as appraising the outcomes of specific customer responses (Heinonen et al., 2010), meaning evaluations should not just be classified as either good or bad. Rather, they need to be evaluated in tandem with customer goals and processes (Becker & Jaakkola, 2020). Hence, with regard to this thesis, it is imperative that institutions of learning ensure that their CX stimuli correspond with the expectations of the student populations they serve whilst being able to identify key contingencies that are deemed important during the customer journey.

Positive CX cannot be created per se; however, they can be curated through monitoring, designing and managing a range of stimuli that affect such experiences (Becker & Jaakkola, 2020). Verhoef et al. (2009) stress the importance of past experiences in determining current or future ones. Customers in different situations and with varied resources would most likely react to particular stimuli in different ways (Becker & Jaakkola, 2020). Social media, which is an external touchpoint, provides firms with opportunities to monitor their customers and in so doing, adapt their firm- controlled touchpoints. Thus, the HE institutions' value proposition is instrumental in determining the types of triggers and responses they hope to elicit from the students/customers that would result in productive symbiosis between them (Kranzbuhler et al., 2018).

3.2.2   The Role and Value of Customer Experience

CX has emerged as an important marketing concept aimed at creating pleasurable, unique and memorable experiences (Jain et al., 2017). Firms are being forced to redefine their offerings in terms of "personalised co-created experiences" (Prahalad & Ramaswamy, 2004, p. 8). It is important to distinguish personalisation from customisation. Customisation assumes that the manufacturer will design a product to suit a customer's needs.

Personalisation, on the other hand, is about the customer becoming a co-creator of the content of their experiences (Prahalad & Ramaswamy, 2000). CX plays an important role in firm performance as a significant shift arises from commoditisation to personalised, co-created consumption experiences (Jain et al., 2017). Jain et al. (2017) posit that positive customer experiences can help achieve competitive advantage, customer satisfaction, differentiation, enhanced image, loyalty and word-of-mouth communication; that experience is now emerging as the new basis for exchange.

Schmitt et al. (2015) have suggested that every service exchange leads to a customer experience, regardless of its nature and form. They hold the view that customer experience design, management, and delivery can be viewed from multiple perspectives: From the firm's viewpoint, where the firm essentially crafts the experience that the customer receives (Berry et al., 2002; Stuart & Tax, 2004). From the customer's viewpoint (Schmitt, 2011) or from a co-creation perspective where the CX culminates from interactions with other actors in a broader ecosystem. The customer's role in the co-construction of the experience must be recognised (Chandler & Lusch, 2015; De Keyser et al., 2015; Prahalad & Ramaswamy, 2003). Prahalad and Ramaswamy (2004), maintain that in the emergent economy competition will centre on personalised co-creation experiences resulting in value that is unique to each individual. Thus, this research project will focus on CX from a co-creation perspective. In this way the responsibility of CX rests on institutions, their management, employees/staff, and the students/customers they serve.

3.2.3   Determinants of Customer Experience

Customer experiences are holistic in nature, making each individual experience very difficult for competitors to copy or imitate (Jain et al., 2017). Thus, delivering great customer experience is not an option, but mandatory for all firms who want to maintain their competitive advantage. While CX is individualist and cannot be induced by the firm as such (Prahalad & Ramaswamy, 2004), the latter can implement various "experience-facilitating factors" to create

the circumstances that enable desired experiences to take place (Zomerdijk & Voss, 2010). CX demands a unique strategy based on each industries unique features and structures (Jain et al., 2017). Additionally, CX reflects an experience that is subjective, internal and a unique mental process that a customer goes through implying, "the customer's involvement at different levels (rational, emotional, sensorial, physical, and spiritual)" (Gentile et al., 2007, p. 397).

Gender, demographics and changing lifestyles all significantly moderate the customer experience. Table 7 captures key articles related to the determinants, moderators, touchpoints and clues of CX.

TABLE 7: Information on Customer Determinants, Moderators, Touchpoints and Clues of Customer Experience

1. Customer experience determinants	Marketing mix, objects, processes, people and environment	Bitner, 1992 Mathwick et al., 2001 Baker et al., 2002 Carpenter et al., 2005 Carpenter and Moore, 2006 Verhoef et al., 2009 Adhikari and Bhattacharya, 2016
2. Moderators of Customer Experience	Customer characteristics Demographics Psychographics Personal Social Cultural	Bitner,1992 Wakefield and Baker, 1998 Verhoef et al., 2009 De Keyser et al. 2015
3. Touchpoints	Company-created Intrinsic Unexpected Customer-initiated	Duncan, 2005 Homburg, Jozıc, and Kuehnl, 2017 Lemon and Verhoef, 2016
4. Functional and emotional "clues" for customer experience creation	Brand name Marketing communication messages Helplines Website/call centre Social media Sales staff Physical environment Marketing mix Billing and payment systems Delivery systems Self-serving technologies Other processes	Berry et al., 2002 Verhoef et al., 2009 Lamberton and Stephen, 2016 Adhikari and Bhattacharya, 2016 Motta-Filho, 2020

(Source: Jain et al., 2017)

Jain et al. (2017) suggests that CX is controlled by several determinants described as the marketing mix, objects, processes, people and environment. Customers who experience any situation linked to a firm would view that contact as a touchpoint. Organisations then use a wide range of clues – object and people based - for customer experience creation (Berry, Poortinga, Segall, and Dasen, 2002). Opportunities for a positive CX can be created through customer interactions with the physical purchase environment, the online environment and store personnel (Adhikari and Bhattacharya, 2016). Technological advancements such as self-service counters have the potential to blur the lines of influencing factors depending on the method of technology implemented and therefore affect the perceived customer experience (Verhoef et al., 2009). Organisations that focus on CX, actively manage their brands and the interactions that deliver on a brand promise, where service interactions mediate the brand meaning to customers. (Motta-Filho, 2020).

Customers then select interactions with such clues at various stages to ultimately form a customer experience. Everything, every person, every message that touches a customer communicates something positive or negative about the organization. Perceptions about personalized co-created customer value are formed as the result of this phenomenon (Jain et al., 2017; Ponsignon et al., 2015). Creating satisfying CX pivots on the capability and commitment of employees. Firms create a better CX through specific touchpoints that are interactional with service employees (Lemon & Verhoef, 2016). Ma and Dube (2011) argue that employee and customer behaviour are highly interdependent; employee responses can both positively and negatively affect how customers perceive a touchpoint with a firm (Holloway & Beatty, 2008; Massad et al., 2006). Before them, Bitner et al. (1994) expressed the view that employee understanding of customers, allowed both firms and employees, to adjust to customer needs appropriately. Wilder et al. (2014) reiterated this point when they proposed that empathising with and anticipating customer needs was the key to adapting a service experience.

Recently, researchers have suggested the need for more attention on the emotional aspects of customer relationships (Verhoef & Lemon, 2015). Numerous CX researchers point out that one's emotional state—such as situational feelings of joy, happiness, and sadness—impacts the customer heavily (De Keyser et al., 2015). Customers can strengthen and mitigate the effect of their own CX on attitudes and behavioural intentions when observing how others are being treated with the firm's touchpoints, say Mattila et al. (2014). For example, when a customer sees a fellow customer experiencing a service disappointment followed by a poor recovery,

this impacts negatively on perceptions of fairness and future support intentions, even if the observer's own experience was positive (Kranzbuhler et al., 2018).

The next section presents CX within the context of HE.

3.3 Customer Experience (CX) within Higher Education (HE)

CX is unique not only to the individual, but also to the context in which it is embedded. (De Keyser et al., 2015). Numerous scholars have discussed customer/student experience within the HE literature (Kelly et al., 2016; McAlpine et al., 2009; Dollinger et al., 2018). It was in the early 1990s that Haselgrove (1994) first argued that student experience was holistic in nature, necessitating that it be viewed and managed as a total experience. Subsequently, the 'Postgraduate Student Experience' was conceptualised to describe the totality of students' engagement in, and involvement with, their HE, and their prioritisation of learning within their broader contextual environment (Temple et al., 2014; PGCE Report, 2016). All forms of postgraduate study are incorporated within this definition, whether that be research, coursework, or a mix of both. In particular, it reflects the journey of a student in multiple domains (academic, personal, professional, and social) whilst acknowledging the complexity and diversity of experiences that cannot be synthesised into a universal definition- PGSE Report, (Kinash et al., 2016).

Postgraduate service encounters do not take place in a vacuum, but in a specific milieu, hence it is important to understand how the research service climate influences perceptions of service quality, service experience and service satisfaction (Govender & Ramroop, 2013). Prior research (Jensen, 2015) indicates that students seem to react according to the structures, culture, and human beings (staff) they encounter in their educational systems.

3.3.1 Students as Customers

HE is seen as a service institution (Morgan,1991; Mazzarol et al., 2001), and thus can be considered as an experiential service (Khanna et al., 2014). Experiential services are focused on the experience of the customer when interacting with the organisation, rather than just the functional benefits from the products and services received (Voss & Zomerdijk, 2007). A study carried out by Koris and Nokelainen (2015), using a student-customer orientation questionnaire (SCOQ), allowed HE institutions to identify categories of educational experiences wherein students expected the institution to be student-customer oriented. They found that students expected to be treated as customers in terms of student feedback and communication. In

another study, students' expectation of HE institutions included a practical curriculum that was shaped by the expertise of various stakeholders (Koris et al., 2015). This gives credence to the argument that students should be considered as customers, however, this claim has been refuted by many academics (Davis & Farrell, 2016).

The concept of "interaction" (Cowell, 1984) is another marketing concept that can be put forward to confirm the primacy given to students as the main customer. Gummesson (1991) describes interaction as the "point of marketing" which is to influence customer purchases. Since the student participates heavily in the interaction process with the university and its members, their position as the main customer should therefore be acknowledged.

The metaphor of student as a 'customer' has been applied by many in HE (Saunders, Kitzinger, et al., 2015; Guilbault, 2016; Koris & Nokelainen, 2015). This increasing focus on students as customers has been fuelled by the pressures of a mass HE system that has now shifted the cost burden onto students (Tight, 2018). Some of the benefits of treating students as customers include higher student satisfaction levels, greater loyalty, and a greater likelihood of recommending the university to prospective students (Borraz-Mora et al., 2020; Braun & Zolfagharian, 2016).

A study by Nguyen and Rosetti (2013) expressed their concerns stemming from the ideological gap – what students perceived as their needs as opposed to the educators' view of what is in the best interests of the students. In general, many of the reasons cited for not viewing students as customers relate to the education process (and not the other services provided by HE), and the crux of these reasons were concerns that they lead to a lowering of academic standards (Guilbault, 2016).

It is the view of this thesis that HE institutions that consider excluding the student from the role of customer will find its implications on student satisfaction and retention. Increased student retention is an objective for HE, and it is an anticipated outcome of a HE institution that embraces a market orientation (MO). Other HE goals include higher student satisfaction, improved ratings, and increased graduation rates. Notably, one of the antecedents of MO is customer mind-set. Customer mind-set is expected to impact on customer satisfaction, student retention, and graduation (Guilbault, 2016). Research also confirms that the creation of an internal environment which promotes customer focus amongst all employees within an organisation leads to more profitable organisations (Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Narver & Slater, 1990). An important finding from Guilbault (2010) indicates

that a very low customer mind-set is linked to low student (customer) satisfaction. The study covered five functional areas, and faculty was found to have a lower internal and external customer mind-set. This was an issue because faculty/academics play an important role in ensuring student satisfaction. Necessary interventions include a change in culture, training and coaching, as well as changes in processes and procedures.

The postgraduate service encounter involves a supervisory relationship between the student and the research supervisor. The next section looks at the role of the supervisor in influencing the student experience.

3.3.2 Role of the Supervisor

Research is considered an essential human learning activity on a postgraduate programme (Wisker, 2005). Eley and Jennings (2005) agree that masters research is high on the priority list of HE institutions because of the valuable contribution they make to the creation of new knowledge and improving research capacity (Wisker, 2005). Positive, postgraduate throughput rates ensure a stable financial income for HE institutions.

HE institutions that strive to achieve the goals of supervision excellence, would need to promote a 'preventative, interventionist approach' (Manathunga, 2005). McCormack (2005) highlighted the tensions that can arise from a mismatch between the individual/student's understanding of postgraduate research and that of the institution. This gap in expectations could impact negatively on the student's chances of completing their studies. Franke and Arvidsson (2011) maintain that research supervision involves both a knowledge process and a relational process, where the student is given the opportunity to develop the knowledge and skills needed to carry out research effectively.

Sayed et al. (1998) proposed that a key element in successful supervision is understanding student experiences and the worlds that they construct, in relation to their academic work. Every postgraduate student requires a different supervisory relationship; this ranges from a high level of dependency to a high level of autonomy (McClure, 2005). Thus the supervisor-postgraduate student relationship is considered to be the key factor in the success or failure of a student's research work, for which the supervisor is expected to provide the necessary support, guidance and mentorship to the student in need (Alam et al., 2013). Wisker et al. (2003) proposed a variety of conceptualisations which revealed the complexities involved in the roles that research supervisors play, a role continuum that ranges from dictator, authority

figure, and 'GOD', to manager, guide, mentor, facilitator, collaborator, friend, counsellor, and parent. These multi-faceted roles assigned to the supervisor impact on the postgraduate student's overall satisfaction, retention and completion of their studies.

Delivery of quality postgraduate research degrees brings with it various supervision challenges for academics. Postgraduate supervision can generally present multifaceted challenges, including:

a) Inadequate supervision (such as lack of supervisor's experience, commitment and/or time)

b) Emotional and psychological problems experienced by the student (due to their intellectual and social isolation; insecurity to fulfil the standard and lack of confidence in their ability to complete their thesis within the time frame, or at all)

c) Lack of communication and understanding between the supervisor and student

d) The student's skills gap, lack of knowledge, skills, training or experience in research methods

e) Lack of a work-life balance; family and work commitments

f) Lack of financial support for tuition and subsistence

g) Inadequate administrative or institutional support

h) Lack of proper research infrastructure and a conducive research environment

(Source: Alama et al., 2013; McCormack, 2005; Eley & Jennings, 2005; Zhao, 2003).

Students who are involved in quality relationships with their supervisors report greater levels of learning and evidence a higher regard for their educational experience (Umbach & Wawrzynski, 2005; Komarraju et al., 2010). Bowden et al. (2011) and Healey et al. (2014) have also acknowledged that by engaging students in their HE experience, a relationship between faculty and student may help increase the value of Higher Education.

3.3.3   Student Satisfaction

Customer satisfaction is the relationship between expectations and performance. However, many customer satisfaction models ignore CX, which can affect satisfaction (Helgesen & Nesset, 2007; Honingman, 2007).

Ng and Forbes (2008) speak of an ideological gap – the divide between fulfilling students' expectations and designing the service towards what the institution believes the students should experience. They go further to relate the function of the university as being able to work, "in

the dynamic tension between conformity and contestation" (Ng & Forbes, 2008, p. 14). The complexity of universities makes measuring quality more than just going by a simple indicator like customer satisfaction (Diaz-Mendez & Gummesson, 2012). Customer satisfaction, measured by surveys and pass rates, can be considered myopic, short-term reactive measures derived from consumption experiences (Díaz-Méndez et al., 2019). CX, which is more holistic and proactive, relates to managing the gap between expectations and performance in terms of attributes and standards. This is then taken a step further to identify which attributes should matter in the first place, and where resource constraints could often play a role (Ng & Forbes, 2008).

Teaching is at the heart of a university education; however, the student experience is impacted by much more than just teaching. The HE offering encompasses more than just the core service offering (i.e. the HE learning experience); included is the supplementary service offerings (e.g., fee payment facilities, support programmes, etc.) facilitated by the interaction of people (administrative and academic employees), processes (learning and administrative) and physical evidence (buildings and facilities) (Gronroos, 1990). Student experience encompasses facilities, social aspects, access to staff etc. Davis and Farrell (2016) share their view on student experience from a service-product bundle perspective. The three (3) elements are as follows:

1. The physical or facilitating goods. (These include lecture rooms/halls, lighting, furniture, catering, recreational facilities, car parking facilities, teaching materials, and access to wifi.) Designing such 'servicescapes' (Bitner, 1992), namely, the physical facility wherein the service is performed, delivered and consumed, can potentially make a huge difference to a student's university experience.
2. The sensory service provided, which is explicit in nature. (These include the quality of staff in terms of ability to teach, availability for student consultation, delivering constructive feedback, and overall support provided for successful study/learning).
3. The psychological service provided, which is implicit in nature. (Includes staff/student relationships, staff empathy, staff friendliness and professionalism (Douglas et al., 2006).

HE institutions are complex in nature, thus a number of additional factors influence student satisfaction, as described in Table 8.

TABLE 8: Additional Factors Influencing Satisfaction

Factor	Examples	Authors
Personal Factors	Age, employment, gender, average marks, Preferred learning style and temperament	Appleton-Knapp and Krentler (2006)
Institutional factors	Quality and Style of instruction Emphasis on Research Postgraduates Quality and promptness of feedback Class size Perceptions of Instructor Fairness	Fredericksen, Shea, and Pickett (2000) Desai, Damewood, and Jones (2001)

(Source: Davis & Farrell, 2016)

A customer experience is produced when a financial exchange takes place (Caru & Cova, 2003). In addition, if HE institutional strategic responses are to be at all effective, then the inherent differences in motivations of student groups (i.e., international versus domestic) must also be acknowledged (Ross et al., 2013). Higher Education research suggests that institutional responsiveness, communication and access may positively influence student satisfaction (Douglas et al., 2008). Hence, co-creation, which is seen as enabling many of these factors, can also positively impact student satisfaction (Dollinger et al., 2018).

3.3.4   Co-Creation

The concept of co-creation is from the world of business, where it was first introduced by Prahalad and Ramaswamy in 2000, in the article 'Co-creating Customer Competence'. The common denominator in all the uses of the expression is the shared production of something. Co-creation has been defined as the practice of developing systems, products, or services through collaboration with customers, managers, employees, and other stakeholders (Ramaswamy, 2011). Co-Creation within the framework of HE is relevant and strategically fundamental in pursuit of a future that seeks to strengthen human relationships and create shared value in spite of myriad differences.

Taylor and Robinson (2009) have recommended that the student voice itself be viewed as a project of ethical responsibility, something that is often overlooked in many initiatives undertaken by universities. Students have certainly shown an interest in playing a more active role as partners in their HE experience (Bovill & Felten, 2016; Healey et al., 2014). Students

are looking to find value in their degrees that fulfil both their current and future needs (Tomlinson, 2008; Vickers & Bekhradnia, 2007). HE institutions are therefore tasked with developing a deep understanding of shared responsibility between students and themselves whilst emphasising the importance of customer responsibility; that is, of students playing an active role in shaping the value of their experiences (Dollinger et al., 2018). The process of value co-creation allows for institutions and students to work together to improve the student experience, where students' differing knowledge and resources can jointly interact with university staff and faculty to promote more integrated, superior outcomes, as opposed to only one party (i.e., the institution) trying to satisfy the needs of the other alone (Frow et al., 2015; Zwass, 2010).

The term 'The Student Experience', is increasingly being focused on with regard to ways in which students can actively participate in HE, even embracing customer-type roles (Furedi, 2010). HE often adopts a traditional mind-set whereby customer roles are awarded less of an influence in changing the production process (Spohrer & Maglio, 2008). However, knowledge sharing is beneficial not only to industry, but to HE as well; as the HE landscape grows more competitive, student resource integration could help institutions innovate. Cook-Sather et al., (2014) add that students have the ability and knowledge frame necessary to contribute meaningfully to the advancement of practice. Even though they are not disciplinary experts, they are 'experts' at being students, and can therefore offer the most insightful guidance on how to improve things, having struggled themselves within the HE system (Dollinger at al., 2018).

The organisation can provide resources such as a platform and specific knowledge of previous production, whilst the customer can provide resources such as feedback and original ideas for innovation (Ramaswamy & Ozcan, 2014). Within the HE context, student participation requires a balance of student groups, otherwise individual students or a subset of the student population may take control. The process of value co-creation between customers and organisations can only be jointly constructed if it is transparent (Leavy, 2012; Calvo-Mora et al., 2015). In this way an atmosphere of trust and authenticity can be established (Leavy, 2012). Vargo et al. (2008) found that transparency and access also enabled more balanced roles between organisations and customers. In the university context, a critical dynamic in the co-creation processes is how power imbalances between students and staff might influence the legitimacy of the activity to support these key considerations (Dollinger & Lodge, 2019).

The co-creation process can create value for staff, students, and the university. The process of co-creation is mutually beneficial to both the student population and the HE institution. Co-production involves continuous collaboration with stakeholders towards service design processes (Auh et al., 2007; Hu & McLoughlin, 2012). The process of value co-creation will positively impact students' overall experiences since co-production requires a level of knowledge exchange, equity and interaction that is built on substantive relationships between themselves and faculty staff, resulting in anticipated benefits that may include quality interactions, satisfaction, and graduate capabilities (Dollinger et al., 2018).

Organisations wanting to co-create a unique customer experience need to first co-create an empowered employee experience ''inside'' the organisation (Ramaswamy, 2009). Universities are large, complex institutions running large numbers of processes, often on the basis of departments working in their own silos (Newton, 2019). Scholars have suggested that value co-creation can only be assumed in organisations where the firm understands its capabilities and managers are willing to adapt to new principles of co-creation (Pluijm, 2010). In their research, Dollinger and Lodge (2019) highlight the need for university leadership to engender and support student-staff co-creation throughout all aspects of the university. Student contributions and ideas include stimulating teaching and learning experiences, research activities, student life, and student services. Value co-creation benefits the institution through numerous factors including student loyalty, university image as perceived by students, and student-university identification (Schlesinger et al., 2015). Furthermore, since value co-creation is a process that inspires continuous and quality interactions between students and institutions (Prahalad & Ramaswamy, 2004), institutional benefits could be augmented through the process of value co-creation.

In some ways, HE already co-creates with students in minor cases, such as eliciting student feedback with questionnaires. Other examples of co-creation are through student unions or organisations (Varnham et al., 2016), designing learning environments (Könings et al., 2017), and through students creating university-related content through social media. Students expect HE institutions to be capable of change and progress, thus co-creation is deemed as adding value to the context of higher education.

The final conceptual model that is represented in Figure 5 was derived from the literature review of prior studies and the applicable theory bases. The expectation was a sequential model; however, a cyclical model emerged instead, due to MO, CX and S-D logic (co-creation) all requiring a stakeholder, participative approach. This model also highlights the necessity to

keep the cyclical flow in motion in order for HE institutions to remain relevant and competitive. S-D Logic takes on a subjective view, with the aim to understand how value emerges, within the customer's context, when engaged in a CX encounter (Helkkula & Kelleher 2010). CX is thus specific to the context of the individual HE institution (Becker & Jaakkola, 2020). Student satisfaction as a construct relates to attitudes and expectations that have a changing nature, and as such require regular and ongoing quality improvement efforts by, HE institutions, that can assess and predict their student's satisfaction levels and the attainment of important learning outcomes in HE (Wong & Chapman, 2022). An argument could be made for relationships in the alternate direction, but this diagram is for illustration purposes as guided by S-D logic, rather than testing the directions and strengths of the relationship.

The arrows in one direction denote a continuous, ongoing, structured, co-ordinated approach. The ultimate goal of MO is to achieve superior organisational performance, which requires a unidirectional focus of all departments and employees creating superior customer value, thereby leading to higher employee morale (Agarwal et al., 2003).

Co-Creation is viewed as the core tenant of a mutually beneficial relationship between the institution, staff and the students where the creation of shared value takes place. This knowledge sharing space- that intersects all 3 key role-players- is thought to promote continuous and quality interactions.
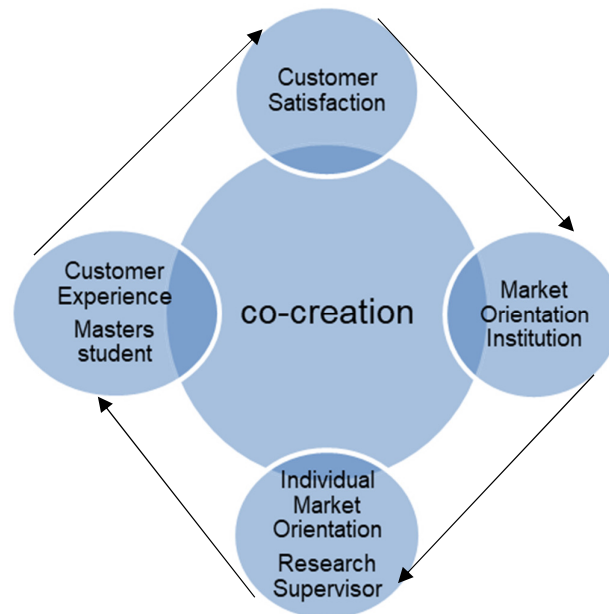
FIGURE 5: Final Proposed Conceptual Model
(Source: derived from the study)

3.4 Conclusion

This chapter focused on the construct "Customer Experience". Customer experience addresses customers as 'experience actors' (Jain et al., 2017). Students are considered to be the primary customers/actors of a university (Hill, 1995), being direct recipients of the service provided. Hence, a focus on CX is necessitated in a South African HE setting, where postgraduate student enrolments and outputs are low and inadequate in relation to the country's economic and social development needs (Badat, 2010). The literature posits that students can provide valuable feedback to the HE institution if co-creation opportunities are presented. The next chapter will address the methodology that was undertaken in this study to achieve the study objectives.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter follows on from the reviews on the literature and explains the research methodology applied to this research study. The purpose of this research study is revisited, followed by a discussion on the research design and motivation for the mixed methods study. The qualitative phase is then fully explained in conjunction with the critical incident technique (CIT) method based on Flanagan (1954). CIT was further augmented with the enhanced critical incident technique as described by Butterfield et al. (2005). A history of the CIT method, its benefits, shortcomings and application to this study, is explained. Thereafter, the quantitative aspect of this study is fully elucidated, explaining sample size, the survey instrument and the application of factor analysis to the data. Issues around ethics and participant anonymity are also addressed. The chapter culminates with a brief concluding summary.

4.2 Research Approach

The purpose of this research was to examine the role of Customer Experience (CX) in influencing Market Orientation (MO) initiatives in a Higher Education (HE) setting. The primary objective of this study was to highlight that focusing on CX, rather than just evaluating customer satisfaction levels, can be a greater source of information to guide MO objectives and its implementation.

This study adopted the Convergent mixed method research design. Mixed methods research provides a more comprehensive understanding of the research problem than either quantitative or qualitative alone. Both qualitative and quantitative methods were used to gain richer sources of information that were complementary to each other (Creswell & Plano Clark, 2011). Qualitative, semi-structured interviews were conducted with postgraduate master's students to gain insight into their actual experiences at University X. Interviews were conducted to capture students' perceptions of the research journey; discussions included challenges, positive and negative incidents/experiences and recommendations for improving the overall experience. Quantitative survey questionnaires were sent to research supervisors electronically to capture their perceived levels of MO. The survey comprised both closed and open- ended questions. The open-ended questions provided greater insights into supervisor perceptions of the student postgraduate experience.

4.3   Philosophical Foundations of the Research

4.3.1   Worldviews Applied to Mixed Methods Design

Saunders et al. (2007) describe research philosophy as a system of beliefs and assumptions about the development of knowledge. Hughes and Sharrock (1997) suggest that there is no absolute basis for scientific knowledge, thus no philosophical stance can be considered better than another (Holden & Lynch, 2004). The five major philosophies in business and management are: positivism, critical realism, interpretivism, postmodernism and pragmatism (Saunders et al., 2007). Practical implications will dictate the choice of a specific research philosophy.

Positivism has been associated with the philosophical stance of the natural scientist, where remaining neutral and detached from their research data, prevents influencing the findings (Saunders et al., 2015). On the other hand, Postpositivist researchers view inquiry as a series of logically related steps and make claims of knowledge based on objectivity, standardisation, deductive reasoning, and control, within the quantitative research process (Creswell, 2013; Creswell & Plano Clark, 2011; Lanham, 2006). Constructivist research (frequently used in qualitative research) is shaped from the bottom up, i.e., from individual perspectives to broad patterns and ultimately, to broad understandings (Creswell & Plano Clark, 2011). If postpositivist and constructivist research is situated on a paradigm continuum, they will be on opposite ends, says Betzner (2008). Pragmatism embraces the two extremes and offers a flexible and more reflexive approach to research design (Feilzer, 2010; Morgan, 2007).

Tashakkori and Teddlie (2003) have observed that at least 13 different authors have explicitly advocated the adoption of a pragmatist position in a mixed-methods design, and pragmatism is mentioned most often in the mixed-methods literature. Paradigmatically, mixed method research makes use of pragmatism as a system of philosophy by suggesting that it is directly linked to the needs of mixed-methods research (Harrison & Reilly, 2011). Scholars maintain that pragmatism provides a philosophical foundation for social science research in general, and mixed-methods research in particular (Morgan, 2014).

4.3.2. Justification for the Selected Research Philosophy

When considering the questions and objectives of this study, a mixed method research (MMR) based on the pragmatist philosophy was deemed most appropriate. Pragmatism asserts that concepts can only be relevant where they support action (Kelemen & Rumens, 2008). Saunders et al. (2015) views a pragmatist as starting with a research problem and aiming to contribute practical solutions that inform future practice. Creswell (2009), on the other hand, expresses pragmatism as being problem-centred, pluralistic and real-world practice-oriented, whilst Morgan (2007) describes a pragmatic perspective as drawing on "what works", using diverse approaches, giving primacy to the importance of the research problem and question, and valuing both objective and subjective knowledge. Ultimately, pragmatists recognise that there are myriad ways of interpreting the world when undertaking research, and that multiple realities might exist, hence no single point of view can ever give the entire picture. Thus, a major underpinning of pragmatist epistemology is that knowledge is always based on experience (Kaushik & Walsh, 2019). The table below denotes the application of this particular research philosophy to this study.

TABLE 9: Application of the Pragmatist Approach to this Study

	Pragmatism	Application to Study
Definition	Philosophical movement characterised by the relation of theory and praxis and specifically in the predetermined outcomes of an inquiry	
Ontology	Objective-reality places limitations and constraints on our actions. Subjective – pluralistic view	Mixed methods approach will present both realities.
Epistemology	Subjective and dependent on practical consequences	Quantitative online surveys captured the general view of supervisors, whilst individual interviews conducted with master's students.
Knower	Has a priori cognitive framework which affects his/her perception of the world.	The researcher bias and additional insights were due to her experience in HE.
Methodology	Both Qualitative and Quantitative are used.	Both inductive and deductive methodologies were used.

(Source: Adapted from Van De Ven, 2007; Creswell & Plano Clark, 2011)

Researchers using this approach use multiple methods of data collection, including both quantitative and qualitative sources, to best answer the research question. They also focus on the practical implications of the research and emphasize the importance of conducting research that best addresses the research problem (Creswell, 2003). Thus, in this mixed methods research study, both numerical and text data have been collected to address different perspectives of the same general problem, in so doing providing a more complete understanding.

4.3.3   Research Questions and Sub-Questions

The table below captures the research questions that guided this exploratory study.

TABLE 10: Questions for Mixed Method Study

Key research Question	**How does Customer Experience (CX) influence the implementation of Market Orientation (MO) at Higher Education (HE) institutions?**	
Sub-Question 1	To what extent do supervisors of postgraduate students implement a Market Orientation (MO) strategy?	Quantitative
Sub-Question 2	What are the experiences of students on the postgraduate programme at Higher Education (HE) institutions?	Qualitative
Sub-Question 3	What is the relationship between Customer Experience (CX) and Market Orientation (MO)?	Mixed methods

4.3.4   Purpose of Mixed Methods

Venkatesh et al. (2013) presented seven (7) purposes of MMR (Table 11). In mixed methods studies, investigators intentionally integrate or combine quantitative and qualitative data, rather than keeping them separate. The basic concept is that integration of quantitative and qualitative data maximizes the strengths and minimizes the weaknesses of each of these types of data (Creswell et al., 2011), providing a more complete understanding of a research problem. Sub-question 3 attempts to assimilate divergent views on the customer/student experience and its influence on the implementation of MO by research supervisors at University X. Attempts were also made to corroborate or confirm how the qualitative data
expanded understanding of CX and its relationship to MO.

TABLE 11: Seven Purposes of MMR

(1) Complementarity: to obtain mutual viewpoints about similar experiences or associations
(2) Completeness: to ensure that total representation of experiences or associations is attained
(3) Developmental: to build questions from one method that materialise from the implications of a prior method, or one method presents hypotheses to be tested in a subsequent method
(4) Expansion: to clarify or elaborate on the knowledge gained from a prior method
(5) Corroboration/Confirmation: to evaluate the trustworthiness of inferences gained from one method
(6) Compensation: to counter the weaknesses of one method by employing the other
(7) Diversity: to obtain opposing viewpoints of the same experiences or associations

(Source: Venkatesh et al., 2013)

4.3.5 Mixed Method Convergent Design

Various approaches of MMR have been advanced in the literature. Six types of MMR are commonly used in educational research:

1) Convergent parallel: to simultaneously collect, merge, and use both quantitative and qualitative data

2) Explanatory sequential: to first gather quantitative data, and second, to gather qualitative data to elaborate on the quantitative findings

3) Exploratory sequential: to first collect qualitative data to investigate a phenomenon, and second, to gather quantitative data to explain the qualitative findings

4) Embedded: to gather quantitative and qualitative data at the same time while the one method's design purpose is to support the findings of the other design

5) Transformative, to use either the convergent, explanatory, exploratory, or embedded design types while placing them within an evolving context

6) Multiphase: to examine a subject or issue through a number of studies (Creswell, 2013).

In this mixed methods study, the researcher collected both quantitative and qualitative data concurrently, then compared the two databases to determine convergence, differences, or some combination. Methods of data collection were typically associated with either numbers or numeric data, words or text, and image data. The Convergent Parallel Design (Figure 6) was considered best-suited to this research study.
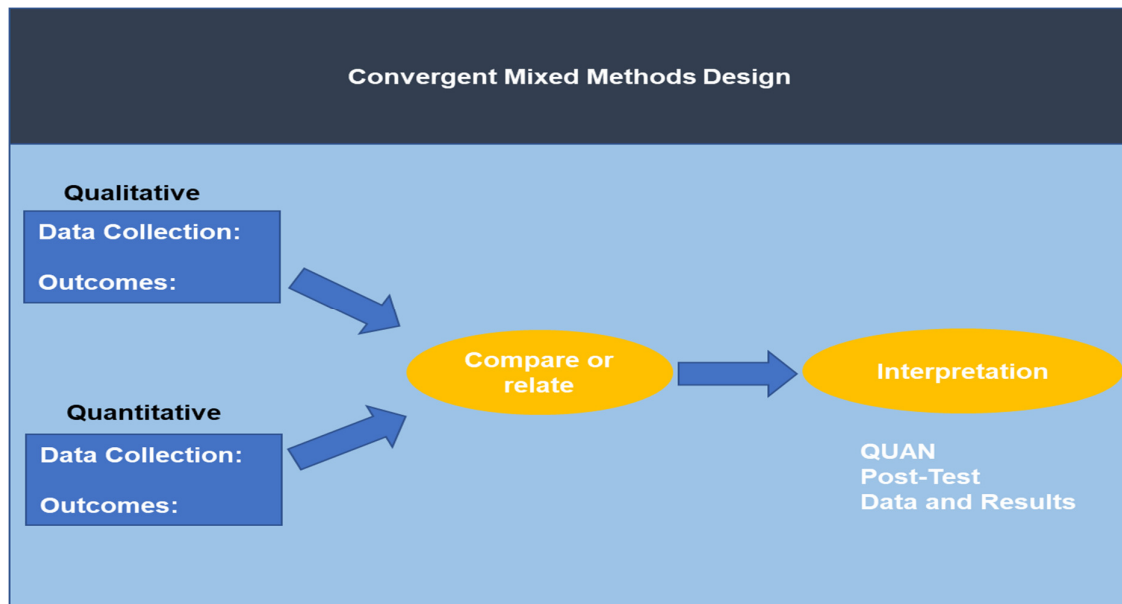
FIGURE 6: Convergent Parallel Mixed Methods Design
(Source: Creswell, 2015)

4.3.6 Benefits and Challenges of the Convergent Parallel Design

- **Timing:** The qualitative and quantitative data were collected concurrently, or about the same time. Supervisor surveys and student interviews were conducted concurrently.
- **Priority:** Both the quantitative and qualitative research are equally emphasised in this study.
- **Point of interface:** The "point of interface" (Morse & Niehaus, 2009), or the point where mixing occurs, was conducted during data interpretation (i.e., when quantitative results compared with themes that emerged from the qualitative data). Table twelve (12) displays this data integration.

- **Single study or multiphase program of inquiry:** This mixed methods project employed a "stand-alone" design – a single study conducted by the researcher (Creswell et al., 2010). In this mixed methods research, certain methodological issues did arise that needed to be mitigated. These methodological issues have been detailed in several books (Creswell & Plano Clark, 2011; Teddlie & Tashakkori, 2009). A pilot study was conducted to mitigate any issues that might have arisen.
- **Resources:** The time required for data collection and analysis was limited due to the limited financial resources available to the researcher. Usually, mixed methods research requires extensive time and resources to carry out the multiple steps involved in this mode of research. Credibility checks were in place to ensure that integrity of the research project was not compromised.
- **Challenges** experienced that are specific to concurrent designs can include ensuring adequate sample sizes for analyses, using comparable samples, and employing a consistent unit of analysis across the databases. The data collection process aimed to collect information from both students and supervisors involved on the master's programme. This overcame the challenge of employing a consistent unit of analysis
- **Analytic and interpretive issues**: Merging the data in a concurrent design may result in the findings being conflicting or contradictory. A strategy of resolving differences, such as gathering more data or revisiting the databases (Creswell et al., 2011), needs to be considered. The first set of quantitative data did not meet the requirements of a statistically significant sample, so further interventions had to be initiated.

4.3.7   Triangulation of Data

Triangulation is simply known as the use of a variety of data collection methods and sources. The use of triangulation can help with the mixing of quantitative and qualitative findings and can also help researchers with the interpretation of the results. This procedure can offer improved understanding between theory and empirical findings, challenge theoretical assumptions, and develop new theories (Caruth, 2013). Given the various benefits of triangulation, the researcher considered this approach most appropriate for understanding the phenomena. The data sets were collected concurrently, the information analysed separately, and then the databases were merged. The mixed methods research process model incorporates Onwuegbuzie and Teddlie's (2003) seven-stage conceptualisation of the mixed methods data analysis process:

(1) Data reduction

(2) Data display

(3) Data transformation

(4) Data correlation

(5) Data consolidation

(6) Data comparison

(7) Data integration

Data integration characterised the final stage whereby both quantitative and qualitative data were integrated into either a coherent whole or two (2) separate, whole coherent sets (Johnson & Onwuegbuzie, 2004). Table 12 is a schematic representation of the Convergent Parallel Research Design applied to this study.

TABLE 12: Convergent Parallel Research Design of this Study

CONVERGENT RESEARCH DESIGN AIM: To validate or explain Quantitative findings with Qualitative data contemporaneously		
QUANTITATIVE		**QUALITATIVE**
Cross-sectional, deductive		Inductive
RQ1 To what extent do supervisors of post-graduate students implement a Market Orientation (MO) strategy?		RQ2 What are the experiences of students on the post-graduate programme at Higher Education (HE) institutions?
DATA COLLECTION		DATA COLLECTION
Sampling: N=151 Purposive sampling of master's research supervisors across six (6) faculties		**Sampling**: Purposive, had to be registered as a student and willing to be interviewed. N= 24 across six (6) faculties
Method: Semi-structured Survey – Online Questionnaire Written feedback open-ended questions		**Method**: Verbal semi-structured interviews based on Critical Incident Technique (CIT)
Analysis: Descriptive and inferential statistics		**Analysis**: Written transcripts, establish codes, descriptions and themes Typology of students' perceptions
Results: Subjective perceptions of level of MO implementation		**Outcomes**: Document master's students experiences

INTEGRATION

Intention: Combine QUAN and QUAL databases for a more complete understanding of the Problem.

RQ3: What is the relationship between Customer Experience and Market Orientation?

RESULTS: Joint Display Table

4.4 The Qualitative Phase of the Research

4.4.1 Introduction

Qualitative research seeks to understand phenomena in context, and the researcher does not attempt to manipulate the phenomenon of interest (Maree, 2012). It is a systematic and rigorous form of inquiry that uses methods of data collection such as in-depth interviews, ethnographic observation and a review of documents. Qualitative data helps researchers understand processes, especially those that emerge over time; they provide detailed information about setting/context, and emphasise the voice of the participant through quotes (Creswell et al., 2011).

TABLE 13: Approaches to Data Procedures

5 Approaches to Data Procedures					
Data Procedures	Narrative Research	Phenomenology	Grounded Theory	Ethnography	Case Study
Forms of data	Using primarily interviews and documents	Using primarily interviews with individuals, although documents, observations and art may also be considered.	Using primarily interviews and 20 to 60 individuals	Using primarily observations and interviews but perhaps collecting other sources during extended time in field	Using multiple sources such as interviews, observations, documents, and artifacts
Strategies of data analysis	Analysing data for stories; restoring stories and developing themes, often using a chronology	Analysing data for significant statements, meaning units, textual and structural description, and description of the "essence"	Analysing data through open coding, axial coding, and selective coding	Analysing data through description of the culture-sharing group and themes of the group	Analysing data through description of the case and themes of the case, as well as cross-case themes

 (Source: Creswell and Guetterman, 2019)

The focus of qualitative research is on "hearing their voices" (Moswela and Mukhopadhyay, 2011). This study adopted a qualitative methodology because it allowed the researcher to obtain data directly from respondents, the students themselves, by listening to their views, voices, perceptions and expectations in detail. The focus of this study was to understand the crux of the student's experience, thus describing this lived involvement (Creswell & Poth, 2018). Chell

(1998) posits that Critical Incident Technique (CIT) within a postmodern environment becomes an investigative tool, rather than a scientific one. Hence, CIT can be used within an interpretive or phenomenological paradigm.

A purely quantitative method was unlikely to elicit the thick, rich data necessary to address the research purpose; hence, the qualitative research approach was used to understand the individual's point of view within their particular context. This research study was conducted in a natural setting, namely, at a university campus, and the sample of master's students were interviewed individually. The researcher was the key instrument of data collection, hence allowing her to identify several nuances of attitudes, emotions and behaviour that would not have been otherwise captured.

4.4.2   Pilot Interview

It was important to pilot the interview protocol, especially when using the CIT methodology for the first time. A critical function of the pilot exercise relates to identifying specific methodological and epistemological issues so that the researcher can affirm, sharpen or revise in order to find the best way to achieve the goals proposed in the study (Kim, 2011). Bazeley (2013) reaffirms and encourages a "dry-run" to ensure that the data generated serves the design purpose. The aim of the pilot study was to test the appropriateness of the interview questions and to provide the researcher with timely suggestions to fine-tune the interview protocol. It also enabled the researcher to obtain experience in conducting in-depth, semi-structured interviews, and to build rapport with the interviewees. Jacob and Furgerson (2012) suggest that building a good rapport with the participants could facilitate better responses. Importantly, the pilot study helped the researcher to hone interviewing skills, ensure the flow of conversation, and practice epoche. Epoche refers to the disciplined effort to set aside or bracket prejudgments regarding the phenomenon being investigated, thereby reducing preconceptions and being as open and receptiveas possible to listening to participants' experiences (Moustakas, 1994; Kim, 2011). There were many benefits and insights gleaned from this practical exercise:

Firstly, the recording equipment was tested and interviews were replayed to check for sound clarity. This was very important, especially when it came to transcribing the interviews. Furthermore, the researcher was able to assess whether there was a smooth flow of conversation, and that probes were used appropriately. It also helped the researcher create a

"safe space" at the location where the interviews took place, and the probes were meant to let the interviewees express their thoughts with ease.

It was important to practice active listening whilst noting down subtle nuances, expressions and pauses that would add greater meaning to their captured voices. These notes were discreetly captured on their individualised protocol sheet.

There was some ambiguity around the brief questionnaire that students completed at the end of the interview. A 5-point Likert scale survey was added to their demographic profile sheet. These questions captured their perceptions of the following:

Question 1: Overall experience of master's programme
Question 2: Supervisor's overall knowledge and skills
Question 3: Overall support received thus far on master's programme

The pilot interview brought to attention that Questions 1 and 3 were too broad and vague. A greater degree of granularity was required. Questions 1 and 3 were split further into four (4) sub-areas: supervisor, department, faculty and institution. This demographic profile sheet can be found in Appendix B.

Another significant insight from the pilot interview was that when using the CIT method, the researcher relied on the respondent's memory and ability to recall an event. It was important to be patient whilst they tried to recall the significant experience or incident.

The pilot interview also brought to the researcher's attention the need for a quiet, private venue/setting for these interviews to be conducted. This was really important for the sake of respondent anonymity and their ability to express their innermost thoughts freely.

4.4.3   Unit of Analysis

In research, a problem has a "level" from which it can be experienced or observed (Van De Ven, 2013). This level could be from an individual, organisation, industry or broader level of analysis. The research for this thesis was undertaken at a micro-level, where the emphasis was on the individual. A unit of analysis can be broadly expressed as the *What* of your study: what phenomenon, entity or process are you interested in investigating. The unit of observation for this study was the postgraduate Master's Programme at University X, whilst the unit of analysis

was the key individuals that were involved with the master's programme, namely: supervisors and students.

4.4.4 Protection of the University's Identity

All interviewees were assigned a unique identity number to ensure their anonymity, thereby adhering to the prescribed ethical code of conduct. Furthermore, the university of technology that was used as the data collection site, was also assigned a pseudonym, "University X", throughout the document.

4.4.5 Qualitative Sampling

The key respondents for the qualitative phase of this study were students who had enrolled for the master's programme. The master's student population comprised 180 students, whose names were provided by the quality assurance department of University X. A further breakdown of the sampling strategy can be found below:

<u>Site</u>: A University of Technology in South Africa, from here on known as University X.

<u>Participants for the study</u>: Students enrolled for the master's Programme across all faculties of University X.

<u>Purposeful Sampling</u>: Identifies a sampling strategy based on intent-maximum variation sampling. Interviewees were selected based on their experience and knowledge in terms of the research focus (Creswell & Plano Clark, 2011). Patton (2015) further argues that the "logic and power of qualitative purposeful sampling derives from the emphasis on in-depth understanding of specific cases" – that is, respondents who provide rich information. It was also important to specify the attributes that were crucial for this study. LeCompte and Schensul (2010) refer to this as ***criterion-based selection.*** Respondents had to fulfil the following criteria to qualify as a participant in this study:

- They had to be master's students registered for the current year of study; this ensured the legitimacy of the student.
- The students had to be willing to be interviewed. The researcher found that whilst many students were willing, a certain amount of trepidation prevented them from finalising the interview date and time. It was clearly communicated in the initial invitation that

all information would be strictly confidential and at no time *"would you be linked to your supervisor"*.

Number of participants; When using the CIT, sample size is determined by the number of critical incidents covered, not the number of participants. A maximum of 24 participants, across six (6) faculties, were interviewed. Resource and time constraints, as well as the probability of reaching levels of saturation played an important role in limiting the sample size.

Permission and Access: Ethical clearance had to be obtained from University X. It was necessary to gain institutional permission to conduct data collection across all of the six (6) faculties at University X. (Refer to Appendix A –Ethics Approval).

4.4.6   Data collection procedure

Both qualitative and quantitative data were collected independently and concurrently. The qualitative data was collected from master's students who were willing to be interviewed, hence participation was purely voluntary.

It was initially thought that master's students would be identified by their respective supervisors, however this approach was found to diminish the important aspect of anonymity and freedom to express their true experiences. The researcher then approached the institution's quality assurance department for the names of all the master's students registered for 2019. A random list of 30 students per faculty was received, providing information on students' names and their email addresses. This ensured that a cross-section of students, which was more reflective of the student population, were interviewed.

Students were invited to participate in this research project via email. It was stressed that all participation would be purely voluntary and all information would be treated with a high degree of confidentiality. As a backup, and to facilitate easier communication, the researcher set up a separate mobile number with WhatsApp Messenger purely for research purposes, so that communication for interviews could be confirmed, cancelled or re-scheduled. This option was clearly expressed on the invitation email. (Refer to Appendix C-Email sent to students)

Students were interviewed using the CIT, which provides meaningful insights via face-to-face, semi-structured interviews. CIT is a method used nationally and internationally by researchers in the education sector (Douglas, McClelland, Davies, and Sudbury, 2009) to gather rich and useful data about the student experience. Ruben (1993) found that CIT as a qualitative method

draws out the most memorable aspects of an event or experience, which can lead to programme evaluation and improvements. A detailed explanation of the CIT methodology follows.

4.4.7 Critical Incident Technique

4.4.7.1 Introduction

In 1954, Flanagan wrote his classic article on the CIT, a widely used qualitative research method which today is recognised as an effective exploratory and investigative tool (Spencer-Oatey, 2013). It has evolved as a robust research method whose influence has expanded into many disciplines including counselling, psychology, education, and marketing, to name but a few (Butterfield et al, 2005; Butterfield et al., 2009; Woolsey, 1986). The most pronounced advancement in CIT application has been the shift from a behavioural application to a more psychological or experiential one. The emphasis has also shifted from direct observations to retrospective self-report.

Flanagan (1954) summarised the purpose and application of the CIT as follows:

"The critical incident technique consists of a set of procedures for collecting direct observations of human behaviour in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles" (p. 1).

To determine the current strengths of the University X master's programme, and to capture the students' experiences, CIT was used as the qualitative data technique. This approach offered the opportunity to collect data with greater depth, moreover allowing the researcher clearer insight into the thoughts, feelings and experiences of participants. In his 2004 review paper, Gremler looked at the CIT application as a research method in 141 studies positioned in services marketing and management publications. The most frequently researched issue was customer evaluations of service in a business-to-customer context.

4.4.7.2 Benefits of Using Critical Incident Technique for this Study

These can be summarised as follows:

a) The data collected is from the *respondent*'s perspective and in his or her own words (Edvardsson, 1992). This allowed the respondents to express their own perceptions of the experience they have had thus far on the master's program. CIT is a research method that allows respondents to respond freely as possible within an overall research framework (Gabbott & Hogg, 1996).

b) It provides a rich source of data by allowing respondents to determine which incidents are the most relevant to them for the phenomenon being investigated. Open-ended questions, with probes if required, were used. The context was developed entirely from the respondent's perspective (Chell, 1998). The CIT method allowed for respondents to freely express their experiences as understood by them. Hence, this method of investigation was deemed appropriate for this study because it did not restrict observations to a limited set of variables or activities (Walker & Truly, 1992).

c) The qualitative phase was exploratory and inductive in nature (Edvardsson,1992). A thorough understanding was needed to describe or explain the phenomenon of Customer Experience. The CIT method was effective in studying this phenomenon for which no a priori variables were established (De Ruyter et al., 1995).

d) The CIT method has the potential to be used as a companion search method in a mixed methods/multi-method study (Kolbe & Burnett,1991). This method helped to generate accurate and more in-depth records of the student experience (Grove & Fisk, 1997).

e) It produced unequivocal and very concrete information as master's students had the opportunity to give a detailed account of their own experiences (Stauss & Weinlich, 1997). The CIT method used in this study has suggested practical areas for improvement of the student experience (Odekerken-Schröder et al., 2000).

f) The CIT method was particularly useful in assessing perceptions of customers from different cultures (Stauss & Mang, 1999). In their study, De Ruyter et al. (1996) characterised the CIT method as being a culturally neutral method as compared to traditional surveys, as there is no a priori determination of what would be considered important. This allowed for a diverse range of cultural perspectives to be captured and analysed in this study.

g) CIT was appropriate in this research context of HE (Butterfield, et al., 2009). The data collection involved a set of individuals (postgraduate master's students) who had experience in a particular area (the postgraduate master's experience). Butterfield et al. (2009) had augmented the traditional CIT method and revised it to an ECIT (Enhanced

Critical Incident Technique). The ECIT added wish-list items, which in this study were the recommendations by master's students on how to enhance and improve the current master's programme at University X.

Whilst CIT has been well suited to this study, limitations/drawbacks were also experienced. The CIT method relies on events being remembered as accurately and truthfully as possible by respondents (Gremler, 2004). Students were requested to recall two (2) positive and two (2) negative incidents or experiences. Many students had to pause for a while to recall an incident/experience, it was not always spontaneous. This could be considered a drawback in terms of how accurately the respondent recalled the incident. This challenge was overcome by using probes during the interview which not only helped trigger the respondent's memory, but also provided greater depth to responses. It is believed that the fact that the respondent could recall this memory meant that it had to have had a significant impact on their overall experience.

There are a number of different perspectives on how to order the questions when using CIT. When respondents are consistently asked to answer questions in the same sequence there is a risk of order bias (Kohles et al., 2012). This can be particularly important with critical incident interviews, as incidents often revolve around emotional events (Bott & Tourish, 2016). In this study, the interview questions began with general challenges experienced, then moved onto two (2) positive incidents, two (2) negative incidents, and finally, recommendations to improve the postgraduate student experience. This ordering of questions was an attempt to limit the risk of order bias. The researcher found that this sequence allowed the student to remain more focused during the interview. It was noted that often the challenges presented by the interviewee at the beginning of the interview were described as the negative critical incident. The researcher was mindful of this overlap and the set of emotions that were triggered by it. Often it was the non-verbal cues like body language, tone of speech and facial expression that "SPOKE" true of the incidents being described.

4.4.7.3 Applying the CIT

According to Flanagan (1954), five (5) major steps had to be undertaken when applying the CIT method. These steps are as follows:

Step 1: Ascertain the general aims of the activity to be studied

Step 2: Make Plans and set specifications

Step 3: Commence data collection

Step 4: Data analysis

Step 5: Data interpretation and report on findings

Table 14 below displays how these steps were applied to this study.

TABLE 14: Application of CIT to this Study

		APPLICATION TO STUDY
STEP 1	Ascertain the general aims of the activity to be studied.	master's students' experience of the postgraduate programme at University X
STEP 2	Make plans and set specifications.	• Interviews were conducted solely by the researcher. • The Interview protocol was strictly adhered to. This ensured consistency throughout.
STEP 3	Collect the data.	• Face-to-face interviews where participants recalled past experiences/incidents and described them. • Entire interview was audio recorded for accuracy and verification. • Interviewees were asked to read, accept and sign the consent form. Each respondent was assigned a unique identity number. • It was important to first establish rapport and get the interviewee to relax. This was done by asking them: "Tell me a little about yourself." • Demographic information form was completed and collected at the end of the interview.
STEP 4	Analyse the data.	• Each interview schedule was transcribed. • Each incident was coded and formulated into categories/themes through an inductive process. • The level of specificity or generality to be used in reporting data was determined during this process.
STEP 5	Interpret the data and report the findings.	Interpret the data and report results. **Credibility checks**: • Audio-recording of interviews provided descriptive validity. • Interview fidelity: listened to a few early interviews to ensure that the method was being followed. • Saturation was reached when new categories stopped emerging from the developing category scheme. • Member/participant cross-checking the results: a summary of the interview was sent to participants to validate the correctness of the transcriptions and the data results. • Inviting experts in the field to review the categories and comment on their utility: what's missing or surprising – two

| | | (2) experts were asked to cross-check 25% of the interviews and category allocations. |
| | | • Theoretical agreement – comparing the category scheme with appropriate literature |

(Source: adapted from Flanagan,1954)

Step 1: Ascertain the general aims of the activity to be studied

It was important to first establish the research question, determine that CIT was the appropriate method, and then proceed to the general aims of this study. The purpose of this research was to determine the role of Customer Experience (CX) in influencing Market Orientation (MO) efforts in a Higher Education (HE) setting. The primary objective of this study was to highlight that focusing on CX, rather than just evaluating customer satisfaction levels, can be a greater source of information to guide MO objectives and its implementation. In order to achieve this objective within the Higher Education setting, master's students who were enrolled for the postgraduate programme at University X, and who were willing to be interviewed, were asked to share their overall experience of the said master's programme. The purpose of these face-to-face interviews were to capture their stories in order to build a composite picture of the factors that brought about a positive experience and those that contributed to negative experiences.

Step 2: Make Plans and Set Specifications

This step involved decisions on what to ask or observe in order to create an interview guide or set of protocols for the interviewer to follow. CIT researchers find the interview protocol to be particularly useful for the following reasons: it serves as a record of the interview, keeps the interviewer focused on the participant's story, and also ensures that all questions had been asked and responded to (Butterfield, et al., 2009). To ensure ease of identifying critical incidents, the questions were formatted in such a way that it made this task easy. [Appendix D-Interview consent form]

Step 3: Data Collection

Flanagan (1954) had advocated collecting data by way of expert observation. This was not possible when trying to capture students' experience of the master's programme, since the masters Programme was not course-based and most students worked during the day, thus in-person interviews had to be done. Mason (2002) posits that interviews are one of the most commonly recognised forms of qualitative research. The semi-structured interview is commonly used to corroborate data emerging from other data sources (Maree, 2012). The objective of this research was to explicate meaning and valuable information from the respondent's, hence semi-structured interviews were considered most suitable.

An interview schedule was developed to define the line of inquiry. Emails were sent to participants requesting their consent to participate in the study. Once they showed a positive interest, a mutually agreed upon meeting date was set. A voice recorder was used to ensure the accuracy of the data collected and allowed the researcher to focus on the discussion. This data was then transcribed as soon as was possible after the interview so that it could be recorded accurately, along with additional notes by, and reflections of, the interviewer. Bezuidenhout and Cronje (2014) recommend that both verbal and non-verbal cues should be recorded.

The objective of CIT interviewing was to explore the same content areas with the same level of detail across all the respondents (Butterfield et al., 2009). It was important for the researcher to show empathy, practice active listening and conduct the interview in a respectful manner. Creswell (2008) refers to the term "saturation" – when no new categories emerge to describe incidents. Flanagan (1954) refers to this point as "exhaustiveness". In this study, despite reaching exhaustiveness, the researcher continued the process until the 24th and final participant to ensure that the narratives covered a reasonable representation of the population.

Step 4: Data analysis

By this time all interview recordings had been transcribed and were now ready to be organised. Butterfield et al., (2005) and Flanagan (1954) prescribed the following steps for analysis:

1) Determine the frame of reference.
This relates to how the data would be used. In this study, the results were used to answer the primary research question. Furthermore, the interview data presented a picture of the students'

collective experience on the master's programme. It was also envisaged that data would inform co-creation theories.

2) Formulate the categories that derive from grouping similar incidents.

This required experience, insight, and judgement. The researcher had to observe an impartial and objective stance; personal bias had to be removed as far as possible.

3) Determine the level of specifity or generality to be used when reporting on the data

The data was analysed through a 3-tier process that allowed a level of generality and some degree of specificity as well.

There are many ways to organise data, both manually and using qualitative research data software programs. In order to really engage with the data, the manual method was chosen. Each transcript was identified by its unique identity number. Each transcript's critical incidents were coded based on the following CIT recommended protocols: Contextual /background information related to the incident, description of the incident, outcome of the incident, emotions related to this incident (Flanagan, 1954; Butterfield et al., 2009). The format of the interview protocol made it easier for the data to be categorised into positive and negative experiences. Using different colour highlighters, the researcher was able to distinguish between the challenges, incidents, emotions, and the wish-list/recommendations items. The researcher worked in batches of three (3) interviews at a time. All this information was then electronically captured onto an Excel spreadsheet for ease of use and to facilitate deeper analysis.

The incidents were broadly categorised into positive and negative experiences. Creating the categories required the use of inductive reasoning, patience and the ability to see similarities and differences (Butterfield et al., 2009). These incidents, together with challenges and wish-list items were then further broken down into the following categories: personal; administration; department; faculty; and institution. The categories emerged from the research study, for which no a priori variables were established (De Ruyter et al., 1995). If the category became too large, it was further divided into sub-categories to elicit greater specificity and gain richer understanding of the data. The electronic document served not only as a text document for each participant, but had a secondary purpose as well – respondents were emailed copies of

these text documents for cross-checking. This served as a credibility check for the CIT method used.

Due to the subjective nature of the data, there was a greater need for establishing credibility checks. According to Borgen and Amundson (1984), 25% of participants had to identify incidents in a particular category for it be considered viable. To accommodate these smaller categories, they were either placed into another category without compromising the meaning of the category, or a new category was created to accommodate all these smaller categories. Once all the categories had been created, various credibility checks had to be implemented.

Step 5: Data interpretation and report on findings

In this step, various credibility checks were implemented in line with the ECIT. Butterfield et al. (2009) had augmented the traditional CIT method to an ECIT. Credibility checks were found especially useful when the study reported on perceptions of an experience.

The following credibility checks as suggested by Butterfield et al. (2005) were applied to this study:

- All interviews were audio-recorded to capture the exact words of the interviewees accurately. Transcripts could then be cross-checked against these audio recordings.

- Budget and time constraints did not allow for the "interview fidelity" check to be fully applied. The researcher did everything possible to ensure that the CIT interview protocol was strictly followed and participants were not asked leading questions. It is usually customary to get an expert in the CIT method to listen to every third/fourth interview to check that the CIT method is being adhered to.

- The researcher did a self-check after every few interviews to ensure that the CIT guidelines and measures were being adhered to.

- After the first 15 interviews, no new categories were arising. The researcher did not stop at this point but continued until all 24 interviews had taken place since interviews had already been scheduled with the remaining participants.

- Reporting on participation rates was important to establish the credibility and strength of a category. The participation percentage rate would be the credibility check linked to each category.

- Two (2) independent judges were asked to place incidents and wish-list items into categories created by the researcher. A sample of 25% of the incidents were sent to two (2) judges who were trusted as experts to provide valued feedback. They were asked to cross-check the incidents against the categories they were placed in. If there were any inconsistencies, these were communicated to the researcher. A match rate guideline of 80% or greater was used as a credibility check (Andersson and Nielson, 1994).

- Participants were asked to cross-check their results. A summary of the interview was sent to participants to validate the correctness of the transcriptions, the data results and to provide an audit trail. Participants were asked to review the list of challenges, critical incidents and their wish-list items. They were requested to check for correctness and asked if they had any additional comments to add.

- The same judges who were used to cross-check the incidents against the categories were then asked to review the final category scheme after member/participant checks were completed. They were sufficiently knowledgeable to act as "experts". They were asked whether they found the categories to be useful; were they surprised by any of the categories; and if they thought something was missing, based on their experience. The judges are both involved in Higher Education, are established in their fields of expertise and hence their feedback was credible.

4.4.8 Research Criteria for Qualitative Research

It was important to build strategies to ensure rigour in the qualitative research process, thus ensuring the reliability and validity of the study. In their seminal work, Lincoln and Guba (1985) replaced reliability and validity with the concept of "trustworthiness", which comprised

four aspects: credibility, transferability, dependability, and confirmability (Morse et al., 2002). In a qualitative study, this relates to the study's findings being accurate or true not only from the researcher's perspective, but also from those of the participants as well as the readers of the study (Creswell & Miller, 2000). Qualitative research is not linear; rather, it is an iterative process where the researcher moves back and forth between design and implementation to ensure congruence with question formulation, the literature and theory that guide the study, data collection strategies, and analysis (Morse et al., 2002).

Credibility refers to whether participants involved in the study found the results of the study to be true or credible (Yilmaz, 2013). As stated before, in this study qualitative data using the CIT method was collected from student interviews. This led to rich, thick, descriptive, contextual data collection that was triangulated with that of the supervisor's quantitative results. Epoche was observed during interviews to ensure that any prejudgements were bracketed, so that open, active listening transpired during the interview process. More importantly, it facilitated deeper levels of reflection for the researcher across all stages of qualitative research (Tufford & Newman, 2012). The results of the joint analysis were further analysed to see if they converged, diverged, or corroborated each other. Participant checks ensured that students' accounts of their experiences at University X were accurately captured and categorised.

Transferability refers to the findings of a qualitative study being transferable to other similar settings (Lincoln & Guba, 1985). In this study, the researcher provided a rich account of the descriptive data, such as the HE context in which the research was carried out: University X as the setting, master's students as the population, the sample size of 24 students, a purposive sampling strategy, aggregated profile of master's students who were interviewed, inclusion and exclusion criteria (interviewees had to be registered students in 2019), the CIT interview protocol and interview questions, and excerpts from the interview guide. This information enables the reader to assess the purported transferability judgement (Korstjens & Moser, 2018).

Yilmaz (2013) describes **Dependability** (reliability) as the process of selecting, justifying and applying research strategies, procedures and methods which are clearly explained by the researcher and its effectiveness evaluated. Budget constraints did not allow for an "external auditor" to review and verify that the CIT method was being adhered to. The researcher ensured the reliability of the interview protocols by self-checking the transcriptions after every third interview. A further reliability check was implemented, where two (2) independent judges cross-checked that incidents were placed in the correct categories.

Confirmability is associated with the aspect of neutrality (Lincoln & Guba, 1985). A study enjoys confirmability when its findings are based on the analysis of the data collected. With regard to the qualitative data, both positive and negative incidents were categorised by the researcher alone, in an objective and impartial way, to ensure that personal bias did not have any influence. Budget and time constraints did not allow for a research team to be employed. To mitigate this, two (2) independent "experts" cross-checked both the validity of the categories and that study findings were grounded in the data.

The next section deals with the Quantitative phase of this study.

4.5   Quantitative Phase of Research

4.5.1   Introduction

In this mixed methods study, the qualitative and quantitative components both add equal value in terms of addressing the research question. Creswell (2003, p. 153) defines a quantitative approach as involving the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute "alternate knowledge claims". Leedy and Ormrod (2015) add that benefits of quantitative research can be attributed to working according to recognised guidelines and methods that are pre-determined.

The quantitative phase sought to determine the degree of individual MO practiced by research supervisors involved with the Master's Programme at University X. Individual levels of MO were measured using the I-MARKOR scale that was adapted from the work of Felgueira and Rodrigues (2015).

4.5.2   Quantitative Sampling

Research supervisors are key to the delivery of a master's programme; thus it was important to include them in the sampling frame. The degree to which supervisor behaviour determined how the MO concept was embraced, was captured via an online survey. The research population comprised 395 supervisors and co-supervisors of masters' students across (six) 6 faculties at University X.

The quantitative sampling procedure was as follows:

Site: A UoT in South Africa, known in this study as University X.

<u>Participants for the study</u>: Research supervisors involved with the master's programme across all faculties of University X. This included co-supervisors as well.

<u>Purposive Sampling</u>: Individuals chosen were experienced and knowledgeable in terms of the research focus (Creswell et al., 2011). All 395 supervisors and co-supervisors were emailed a link that would take them to the survey page. Purposive sampling ensured that only research supervisors were targeted at University X. Access to participants was facilitated by the email being sent from the Postgraduate Office at University X. Participation was purely voluntary, and anonymity was ensured.

<u>Number of participants</u>: Size of the population was 395 supervisors, with a sample size of 151 respondents. This information was received from the postgraduate office of University X.

<u>Permission and Access</u>: An application was completed and submitted via the ethics committee for formal permission to conduct data collection at University X.

4.5.3   Survey questionnaire

A survey was considered the best option to report on the research supervisors' individual levels of MO. This was consistent with previous studies that emanated from the seminal works of Narver and Slater (1990) and Jaworski and Kohli (1993). Mouton (2001) highlights one of the main strengths of surveys as being able to generalise them to large populations, only, however, if an appropriate sampling design has been implemented. An added strength is the high degree of construct validity, provided proper controls are implemented. High measurements of reliability are conditional to proper questionnaire design.

The two most extensively used measures of MO are the ''MARKOR'' scale developed by Jaworski and Kohli (1993) and the ''MKTOR'' scale developed by Narver and Slater (1990). These two scales are widely recognised by scholars and often used in empirical studies pertaining to MO. Kohli et al. (1993) recognised MKTOR as being comprehensive, with many positive characteristics. However, it drew criticism in terms of its theoretical foundation. It was suggested that the MKTOR scale had three fundamental shortcomings. Firstly, it focused mainly on customers and competitors, thereby ignoring additional factors (e.g., technology, rules etc.) that could influence customer needs and preferences. A second criticism was its failure to explain the speed at which market intelligence was generated and then disseminated within the organisation. Lastly, specific activities and behaviours representing a market orientation in an organisation are not covered (Kohli et al., 1993; Dursun & Kilic, 2017).

Whilst no scale is considered flawless, this study chose to measure MO using the Jaworski and Kohli 1993 scale, which is well accepted in the MO literature. The Kohli and Jaworski and Narver and Slater models of MO have been tested in empirical studies on HE (e.g., Flavian & Lozano, 2006; Bugandwa-Mungu-Akonkwa, 2009), but not extensively at the individual level. Schlosser and McNaughton (2009) found that the literature on MO offers little understanding of market-oriented perspectives and behaviours of individuals within service organisations. In response to this impediment, Felgueira and Rodrigues (2015) developed the Individual-Markor (I-MARKOR) scale to reflect the characteristics of individual employees.

4.5.4 Market Orientation Scales in the Context of Universities

Niculescu et al. (2016) postulated that MO scales designed for businesses may not be entirely appropriate for universities. Universities display characteristics that differ from those found in business enterprises. University activities focus upon knowledge production, with a heavy dependence upon a knowledge-based culture. Existing marketing orientation scales may not then be robust enough to fully encompass the nature of university goals and functions.

4.5.5 Development of the Survey Instrument

The objective of the survey was primarily to determine the level of MO of the research supervisor. The secondary purpose was to obtain their views on the postgraduate programme, the challenges they perceived students faced, and their own personal challenges. The questionnaire was designed such that it could be administered using an online platform.

The first page of the questionnaire consisted of a covering letter informing respondents of the following: the research title; what the survey was about; information on confidentiality and voluntary participation; contact details of the researcher, and a request for research respondents to date the consent form indicating their willingness to participate. Pages two to five of the questionnaire were divided into two sections, namely Section A for biographical information and 4 open questions, and Section B with the MO statements. (Refer to Appendix E for full survey)

Open-Ended Questions-Section A

In Section A of the survey questionnaire, four (4) open-ended questions were asked. Respondents were encouraged to explain their answers fully. These open-ended questions were helpful in providing context to the overall study.

TABLE 15: Survey Questionnaire - Open-ended Questions

	Open-ended questions
Question 1	What is your overall impression of the postgraduate programme that services your students? Please explain fully.
Question 2	How does Student feedback inform your supervisory skills? Please explain fully.
Question 3	Kindly indicate three (3) challenges that YOU are experiencing as a Supervisor at this institution. Please name and explain them for clarity.
Question 4	Kindly indicate three (3) challenges that you aware of that master's students are experiencing. Please name and explain them fully.

The first open-ended question dealt with the research supervisor's perception of the master's programme at University X. This information provided a deeper understanding of how the programme was perceived, thus shedding light on the "supervisor experience".

The second open-ended question was meant to solicit answers on whether feedback was provided by students in terms of what worked or not. It begged the question that if indeed there was a feedback mechanism in place, did research supervisors take cognisance thereof and remedy the changes?

The third open-ended question dealt with supervisor challenges. They were asked to name and explain any three (3) challenges that they were experiencing. These responses were important when comparing their challenges with those experienced by students. The information was useful for establishing if there was congruence in some areas, or complete disparities. These challenges provided additional insights into which aspects of the postgraduate programme required attention, revision and support.

Lastly, research supervisors were asked to provide feedback on any three (3) challenges that they perceived students were experiencing. The question specifically requested of them to "name and explain". This was important so that "labels" could be generated by respondents themselves. This information provided a depth of understanding of the challenges students

experienced, and allowed for comparisons against students' own responses, thereby helping to identify gaps and differing levels of perception.

Market Orientation Survey – Section B

A literature search did not produce an Individual MO questionnaire suited to the purpose of this research study. The I-MARKOR scale, developed by Felgueira and Rodrigues (2015), had to be adapted to suit this study, where the "individual" is the student research supervisor. The I-MARKOR scale measures how individual employees acquire, share and respond to market information. The I-MARKOR scale proposed by Felgueira and Rodrigues (2015) consisted of 20 items, ordered in three (3) dimensions of MO.

- *Generation of information: included eight (8) items*
- *Dissemination of information: organised into seven (7) items*
- *Response to market information: included five (5) items*

Under the guidance of a qualified statistician, the original survey of 20 items was expanded to 28 items. The statements focused on one idea or concept at a time to reduce or eliminate any ambiguity. The statements were written in simple English and in short sentences. This final survey was then sent to three (3) marketing experts for scale validation. The final product, a revised 28-item scale, was used to measure individual supervisors' MO. Fourteen (14) of these items pertain to information acquisition or generation of information, eight (8) to information dissemination and six (6) to coordination of strategic response (response to market information).

The main objective involved understanding how individuals contributed to the market orientation of a postgraduate programme at a HE institute. The scale measured the MO behaviour of research supervisors across all six (6) Faculties of University X. Such an instrument clarified individual accountabilities and specified measurable routines that enhanced competitive value. The Individual MO survey signified a major shift in the accountability for MO actions. The supervisors of the postgraduate programme were requested to respond to survey questions that were clearly phrased to include only personal actions. The use of "I" in each item is clearly different from Jaworski and Kohli's original seminal measure of MO (Schlosser & McNaughton, 2009).

4.5.6 Measurement scales

There has been much debate on what should be regarded as an optimal number of response categories. Smyth et al. (2009) recommend that only four (4) or five (5) categories should be used, whilst Foddy and Foddy (1994) suggested that a minimum of seven (7) categories are required to ensure scale validity and reliability. The 5- or 7-point formats would appear to be the most dominant (Dawes, 2008). However, in marketing-related research the most common type is the 7-point scale format (Bruner, et al., 2001). The seven-point format typically provides the following response options: "1 = Very Strongly Disagree", "2 = Strongly Disagree", "3 = Disagree", "4 = Neutral", "5 = Agree", "6 = Strongly Agree", "7 = Very Strongly Agree". The 5-point format does not include the two extreme options of "Very Strongly Disagree", or "Very Strongly Agree". In this study, a standard 7-point scale with anchors of 'Strongly Disagree' and 'Strongly Agree' was used. This 7-point Likert scale was consistent with previous studies on Individual MO (Niculescu et al., 2016).

4.5.7 Data collection

The individual MO survey was adapted from the original work of Felgueira and Rodrigues (2015). The authors had suggested that, *"the proposed scale adaptation matters be corroborated by empirical support"* (p. 3023). This study empirically tested this survey within the context of Higher Education.The postgraduate office of University X agreed to administer the survey from this central office. This intervention was considered a positive move with the aim of eliciting a much higher response rate. Research supervisors and co-supervisors were identified from the various faculty databases by the University X postgraduate manager. The respondents were emailed a link that directed them to the survey. The survey was sent to the entire population of 395 research supervisors.

The online survey had a number of advantages associated with this data collection method:
Anonymity Respondents in this study were reached across long distances, as faculties of University X are based at various geographical sites. Respondents' candour is optimised when their anonymity is guaranteed (Ilieva et al., 2002; King & Miles, 1995; Stanton, 1998). Anonymity was ensured by providing a web-link, as opposed to sending the surveys via email. Wegner (2015) found that anonymity elicited more truthful and well-thought-out answers.

It is short and succinct. Most respondents can complete the questionnaire in a short time. The entire questionnaire did not take more than 20 minutes to complete. It was necessary to keep the survey as succinct as possible to mitigate respondent fatigue.

It is convenient. Online surveys provide convenience in several ways: Respondents can answer at a time convenient for themselves, and may take as much time as they need to answer individual questions (Evans & Mathur, 2005). This was an important consideration for research supervisors, who are usually challenged by time constraints.

It is cost-effective. Online surveys are self-administered and do not require posting or interviewers, hence costs were also kept down. The responses were automatically captured onto SPSS (Statistical Programme for the Social Sciences; Version 25), tabulated and analysed in a co-ordinated, integrated manner that greatly reduced costs.

Interviewers can troubleshoot immediately. They can immediately assist with issues that are not clear to the respondents (Maree, 2012). An email address and mobile number was available to respondents if any queries arose.

It couldn't be mistaken for Spam or junk mail. Spam (unsolicited junk mail) is a big problem in the era of technology that we live in. Respondents would have been unlikely to respond or would have responded poorly to the survey if it had been sent from the researcher's email address. This was anticipated, hence the intervention of sending the survey link from the head of the postgraduate Office. This intervention added more credibility to the survey and caught the respondent's attention. It is believed that without this intervention the response rate would have been extremely poor.

No data collection is without its challenges or limitations. Respondents were twice sent reminders after the initial email (including the survey link) had been sent out. The response, after a month, yielded 81 fully completed surveys – a 21% response rate. This number was considered insufficient as a sample for exploratory factor analysis. Whilst anonymity was considered an advantage in the survey process, the drawback was that there was no mechanism to trace who had actually completed the survey.

An appropriate sample size was necessary to yield meaningful results that provided valuable information for decision making (Hair et al., 2014). Aaker (2011) suggests that an appropriate sample size is frequently determined by either statistical rules, or looking at similar studies. Tabachnick and Fidell's (2007) rule of thumb is having at least 300 cases for factor analysis,

whilst Hair et al. (1995) have proposed that sample sizes should be 100 or greater. Sapnas and Zeller (2002) point out that even 50 cases may be adequate for factor analysis, thus illustrating that suggested sample sizes required to complete a factor analysis of a group of items that participants have responded to vary greatly (Williams et al., 2010).

Guadagnoli and Velicer (1988) proposed that if the dataset had several high factor loading scores (>. 80), then a smaller small size (n > 150) should suffice. A factor loading for a variable measure how much the variable contributes to the factor; thus, high factor loading scores indicate that the dimensions of the factors are better accounted for by the variables (Yong & Pearce, 2013). Hair, Black, et al., (2014) surmised that the minimum was to have at least five times as many observations as the number of variables to be analysed. A more acceptable sample size would have a 10:1 ratio. The final sample size in the quantitative survey turned out to be 151 respondents, resulting in a 38% response rate. This sample size satisfied both the minimum 5:1 ratio and the greater than 100 respondents proposed by Hair et al. (1995). This was made possible by a third round of requests via email and individual requests to complete the surveys. To ensure anonymity of the respondents, printed copies of the survey in individual envelopes were left with research administrators within the (six) 6 faculties. No complaints were received at any stage of the data collection.

4.5.8   Data analysis

"Data analysis involved the identification and measurement of variation in a set of variables, either among themselves or between a dependent variable and one or more independent variables" (Hair, Black, et al., 2014, p. 5). The data was analysed with the assistance of two qualified statisticians. The first statistician was initially involved during the questionnaire design and conducted the preliminary analysis. The second statistician conducted the detailed statistical analysis and produced the descriptive and inferential statistics. The statistical analysis was completed using SPSS.

Descriptive statistics were used to summarise the data (Welman et al., 2009). Frequency tables with percentages and charts indicate the distribution of the MO responses. A descriptive analysis was conducted to measure the central tendency through the mean and standard deviation. Data had to be reduced from unmanageable quantities to be presented in a more manageable format (Babbie, 2013).

4.5.9   Reliability and Factor Analysis

Validity and reliability both reflect the degree to which there may be errors in the measurement scale (Leedy & Omrod, 2015). To determine construct validity, the MO scale was tested for both convergent and discriminant validity. Convergent validity refers to the degree of agreement between two or more measures of the same construct. Discriminant validity, on the other hand, concerns the degree to which measures of conceptually distinct constructs differ. In order to test for discriminant validity, a simple factor test was performed on the data collected in this study (Podsakoff & Organ, 1986).

4.5.10 Factor Analysis

Factor analysis is a multivariate statistical approach commonly used in psychology, education, and health-related professions (Williams et al., 2010). The theoretical framework for factor analysis is accredited to Pearson (1901) and Spearman (1904). However, only with the advent of technology is factor analysis now employed in measurement and substantive research (Henson & Roberts, 2006). Kerlinger (1979) has argued that factor analysis is considered one of the most powerful methods yet for reducing variable complexity to greater simplicity, thus making it intimately involved with questions of validity (Nunnally, 1978).

Two (2) main streams of factor analysis have been recognised: Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA). EFA is considered to be heuristic, where the investigator has no expectations of the number or nature of the variables and, as the title suggests, is exploratory in nature (Williams et al., 2010). CFA, on the other hand, proposes to test a theory. The factors are based on expectations, a priori theory regarding the number of factors. Factor analysis conceptualisations include both exploratory and confirmatory methods. There are fundamental differences between EFA and CFA. CFA is typically driven by a priori theory – theoretical expectations regarding the structure of data (Henson and Roberts, 2006). EFA, by nature and design, is exploratory, and is still most appropriate for use in exploring a dataset (Costello & Osborne, 2005).

4.5.10.1 Exploratory Factor Analysis

The construct validity of the Individual MO questionnaire was conducted using exploratory factor analysis [EFA]. EFA is used to "identify the factor structure or model for a set of variables." (Bandalos, 1996).

There were three (3) key advantages to using factor analysis:

- **Factor analysis** reduces a large number of variables into a smaller set of variables (also referred to as factors). In this study, eight (8) factors were identified through EFA, which allowed the researcher to determine the relationship between these factors in relation to MO. The naming of the factors aimed to reflect their content, together with an idea of how they may be related (Salkind, 2012).
- **It established underlying dimensions** between measured variables and latent constructs, thereby allowing the formation and refinement of theory.
- **It provided construct validity evidence of self-reporting scales** (Williams et al., 2010).

4.5.10.2 EFA Decisions

The reliability of the MO scale was tested using Cronbach's coefficient alpha (Churchill, 1979; Nunnally, 1978). The overall coefficient alpha for the scale should indicate a value which is greater than 0.7, as suggested by Nunnally (1978). A maximum alpha value of 0.90 had been recommended.

4.5.10.3 Validity Issues

Leedy and Omrod's (2015, p. 114) definition of the validity of a measurement instrument is the extent to which the instrument measures what it is intended to measure. The validity of an instrument can take various forms; convergent and discriminant validity were applied to the quantitative research instrument. Both types of validity are a requirement for construct validity.

Convergent validity refers to the degree to which two measures of constructs that should be related are, in fact, related. This is usually accomplished by demonstrating a correlation between the two measures. In this study convergent validity was evaluated via factor loadings and average variance extracted (AVE). Discriminant validity is established when measures that

should not be related, are actually unrelated. In this study a, chi-square difference test was done to assess discriminate validity. If the test is significant then the constructs present discriminant validity (Zait & Bertea, 2015). Discriminant validity was evaluated by calculating the square root AVE of each construct, which must be greater than the constructs' (Fornell and Larcker, 1981, p. 39-50).

4.5.10.4 Reliability Issues

Reliability differs from validity in that it does not relate to what should be measured, but instead, to how it is measured. A popular reliability statistic in use today is Cronbach's alpha (Cronbach, 1951). Cronbach's alpha measure of reliability ranges from 0 to 1, with values of .60 to .70 deemed the lower limit of acceptability. (Hair et al., 2014). The higher the score, the more reliable the generated scale is. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient, whilst values of over 0.8 are indicative of robust reliability (Wiid & Diggines, 2013).

Composite reliability, also called construct reliability, was an additional measure of internal consistency in scale items (Netemeyer et al., 2003). Brunner and Süß (2005) explain composite reliability as being equal to the total amount of true score variance in relation to the total scale score variance. Thus, reliability was assessed by Cronbach's Alpha (**α**) and composite reliability (CR).

4.6.   Ethical Considerations

The researcher received ethical clearance from the university issuing the doctoral degree, as well as from the data collection site. Permission was granted from the Research Ethics Committee at University X for the researcher to conduct data collection across all the faculties. In this study, the participants' rights and interests were considered of primary importance when deciding upon the reporting and dissemination of data. Most ethical issues in research fall into one of four categories: protection from harm, voluntary and informed participation, right to privacy, and honesty with professional colleagues (Leedy & Ormrod, 2015).

All participants were treated with the utmost respect and dignity. Participation was purely voluntary; no incentive was given to any participants. Informed consent was sought from every participant, allowing them free will to withdraw at any time. The researcher assigned each

interviewee participant a unique code number to ensure anonymity. The University where the research took place was also assigned a pseudonym to further protect all participants.

4.7 Validity and Reliability

Validating in MMR is evaluating the quality of the findings of the data. The evaluation of validity – legitimation or quality criteria – is the most important step in all research studies (Benge et al., 2012). A clear discussion and assessment was presented of how the findings have been integrated from both quantitative and qualitative designs, and the quality of the integration. This discussion provides the reader with an understanding of whether the inferences are in harmony with the research objectives and whether they make a contribution to the body of knowledge. Furthermore, it is recommended that researchers include in the discussion any potential threats to validity that might surface during data collection and analysis (Caruth, 2013). Researchers need to address what actions were taken to overcome or reduce these threats. Discussing any potential threats will enhance the quality of MMR (Venkatesh et al., 2013). These limitations and challenges were discussed under the CIT methodology that was used.

4.8 Conclusion

This mixed methods research design embedded in a pragmatist philosophy consisted of both qualitative and quantitative research designs. Data Collection was conducted at University X using a purposive sampling technique. The Individual MO questionnaire was adapted for postgraduate supervisors, whilst master's students were interviewed using the CIT method. Descriptive statistics summarised the quantitative data and were displayed via frequency tables, while inferential statistics were used to interpret the sample findings. The qualitative data was reduced according to positive and negative critical incidents, and further collapsed into themes. The quantitative and qualitative data were integrated in order to interpret the research findings, as is commensurate with mixed methods research. The research results of the quantitative supervisor survey are presented in the next chapter.

CHAPTER 5: RESULTS OF THE SUPERVISOR STUDY

5.1 Introduction

The purpose of the supervisor study was to collect and analyse data to establish the level of Market Orientation (MO) of research supervisors and their perceptions of the master's programme. This data was important to provide insights into whether individuals (research supervisors) exhibited market orientation practices at University X. Quantitative data was collected via an online survey, using a questionnaire comprising open-ended and close-end questions to achieve two objectives. The first objective was to determine the research supervisors' individual level of MO. The second objective was to capture their perceptions of the postgraduate programme; how student feedback informs their supervision skills, the challenges experienced by them, and their perceptions of challenges faced by their master's students.

The research question addressed by the quantitative study was as follows: To what extent do supervisors of postgraduate students implement a Market Orientation (MO) strategy? The main objective involved understanding how individuals contributed to the MO of a postgraduate programme at a HE institution. A quantitative dataset was collected via an online questionnaire. This data was important so as to measure the degree to which individuals (research supervisors) implemented MO practices at University X. In addition to the MO online questionnaire, data collection involved supervisors answering four open-ended questions. The purpose of these open-ended questions was to provide a greater degree of depth and insight into individual supervisors' perceptions regarding the master's programme.

This chapter discusses the factors that influence Individual Market Orientation (IMO) of research supervisors. The tools and statistical tests used to derive these results are presented in this chapter. An analysis of the sample is discussed to highlight certain important information that has contributed to this research. The chapter begins with presenting the demographic profiles of the surveyed supervisors. This is followed by the presentation of the findings of the quantitative data. Thereafter the qualitative findings related to the open-ended questions are discussed.

5.2 Supervisor Demographic Profiles

The table below represents a tabulated profile of the research supervisors that participated in the quantitative survey.

TABLE 16: Profile of Supervisor Respondents

Supervisor characteristics		Frequency (n = 151)	%
Faculty	Applied Sciences	16	10.6
	Business	66	43.7
	Education	8	5.3
	Engineering	28	18.5
	Health and Wellness Sciences	12	7.9
	Informatics and Design	19	12.6
	Not applicable	2	1.3
Age group	25 - 35	16	10.6
	36 - 45	44	29.1
	46 - 55	47	31.1
	56 - 65	38	25.2
	66 or older	6	4.0
Number of students supervising	0 - 6	83	55.0
	7 - 12	53	35.1
	13+	15	9.9
Number of students graduated (in the last 5 years)	0 - 6	106	70.2
	7 - 12	30	19.9
	13+	15	9.9
Postgraduate programme in department/faculty	Yes	135	89.4
	No	16	10.6
Master's students' evaluation forms	Never	97	64.2
	Quarterly	8	5.3
	Every six months	13	8.6
	Annually	33	21.9

Some of the key highlights are as follows:

5.2.1   Sample Representation

The sample reflects 151 respondents from a population of 395.This is a 38.2% response rate. Hair, Black, et al., (2014) have surmised that the minimum is to have at least five times as many observations as the number of variables to be analysed. Pallant (2011) recommends that a sample size should be over 150 participants to meet the criteria for the reliability and validity of the study. Hence, this sample was considered representative of the population.

5.2.2   Supervisor Age

The statistics indicate that the largest age group was between 46-55 (31.1%), followed by the 35-45 age group (29.1%). This indicates that research supervisors were generally older than 35 years of age. This can be attributed to the fact that many academics themselves do not have a Master's degree, or they choose not to supervise until they feel confident enough. A general rule at any university is that you are unable to supervise master's students without having obtained a master's degree yourself. One of the limitations of this survey was not being able to establish within this cohort who is a supervisor and who is a co-supervisor.

5.2.3   Research Supervision

Thirty-five percent (35%) of the sample supervised between 7-12 master's research students, whilst almost 10% supervise 13+ students. If these groupings are combined, then almost 45% of research supervisors supervised more than seven (7) students per year. This reflects the uneven distribution of research supervision among academics, perhaps suggesting that many academics are not prepared to supervise for various reasons or are not equipped with the necessary supervision skills.

Another observation was the number of students that had graduated in five (5) years versus the number of students being supervised in a year. Master's students are given a maximum 5-year window period for completion, so the number of graduated students should indicate a much higher percentage than what is presented. There was a negative correlation between the large number of students supervised and lower number of students who graduate. This could account for the compounded load that certain supervisors are forced to carry.

5.2.4   Postgraduate Programme in Department/Faculty

Ten percent (10%) of respondents reported that a postgraduate programme did not exist within their department. This implies that students from these departments had to register on a master's programme from another department.

5.2.5   Master's Students Evaluation Forms

Sixty-four (64%) of research supervisors concur that no evaluation forms are submitted to master's students, while 35.8% of supervisors have provided their students with some form of evaluation.

5.3   Supervisor Individual Market Orientation (IMO) Results

The quantitative data measured the degree to which individuals (research supervisors) implemented MO practices at University X. Factor Analysis was performed on these closed-ended statements. It is important to relate Factor Analysis to the survey data and primary research goals. The interpretation of the results of the statistical models and methods that follow is largely dependent on a clear identification of the research objectives and methodology.

The following questions must be answered:
 (1) What is the questionnaire aiming to measure? The survey questionnaire was aimed at measuring the level of IMO of the research supervisor. How did their actions/behaviours align to that of being market orientated?

(2) What question is being answered with the questionnaire data, and how?

The main question that was answered by the closed-ended questions of the survey was: to what extent do supervisors of postgraduate students implement a MO strategy? A semi-structured online questionnaire was sent out to research supervisors. These results were then used to provide insight into the trends of the use of different dimensions in choice, of how MO is 'Implemented' or practiced.

5.3.1 Factor Analysis:

EFA was performed to identify the factors that can be used to describe the individual level of MO. Eight different factors emerged from the EFA. The data reflects the individual dimensions of MO being employed by supervisors at University X. Empirical evaluation of reliability and validity of the factors was also performed in SPSS as part of the statistical analysis.

5.3.2 Suitability

The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) can signal in advance whether the sample size is large enough to reliably extract factors (Field, 2009). The KMO is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors. The KMO value for a study of this nature should be 0.6 or above. Thus, the high value of 0.823 in this study is generally indicative that Factor Analysis may be reliably used to extract factors from the sample data (See Table 17).

Bartlett's Test of sphericity tests the null hypothesis that the correlation matrix is an identity matrix. It indicates that there is at least one statistically significant correlation within the correlation matrix (Hair et al., 2010). If the correlation matrix is an identity matrix, this would indicate that the variables are unrelated and therefore unsuitable for structure detection. The Barlett's Test should be "significant" (Pallant, 2011). The significance level in this study is less than 0.05, which again indicates that Factor Analysis is appropriate for identification of factors from the survey data.

TABLE 17: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.823
Bartlett's Test of Sphericity	Approx. Chi-Square	2423.681
	df	378
	Sig.	0.000

5.3.3   Criteria for Determining Factor Extraction

Generally, researchers rarely use a single criterion when deciding on how many factors to extract (Hair et al., 2014).

There following three (3) criteria were applied to determine the number of factors to be extracted:

- Eigenvalues >1   (Kaiser, 1960)
- Break in the scree plot (Cattell, 1966)
- Cumulative percent of variance explained >60% (Horn, 1965)

5.3.3.1 Eigenvalues

The Eigenvalues in an EFA determine the appropriate number of factors to be extracted (Hair et al., 2010). Eigenvalues indicate the proportion of variance in the dataset that is explainable by the eigenvector or factor. In order to select the optimal number of factors that explain the variance in the dataset, statistical packages generally retain factors with eigenvalues greater than 1.0 (Costello & Osborne, 2005). Factors with eigenvalues of less than 1.0 should be eliminated (Tabachnick & Fidell, 2013). From Table 18 there were 8 factors with eigenvalues >1.

5.3.3.2 Scree Plot

An additional visual aid was used to confirm the optimal number of factors that explained a considerable proportion of variance in the dataset. Figure 7 is called a scree plot, the factors with eigenvalues above the point at which the curve flattens out should be retained. The scree plot in Figure 7 confirms that the eigenvalue curve flattens at around eight (8) components.
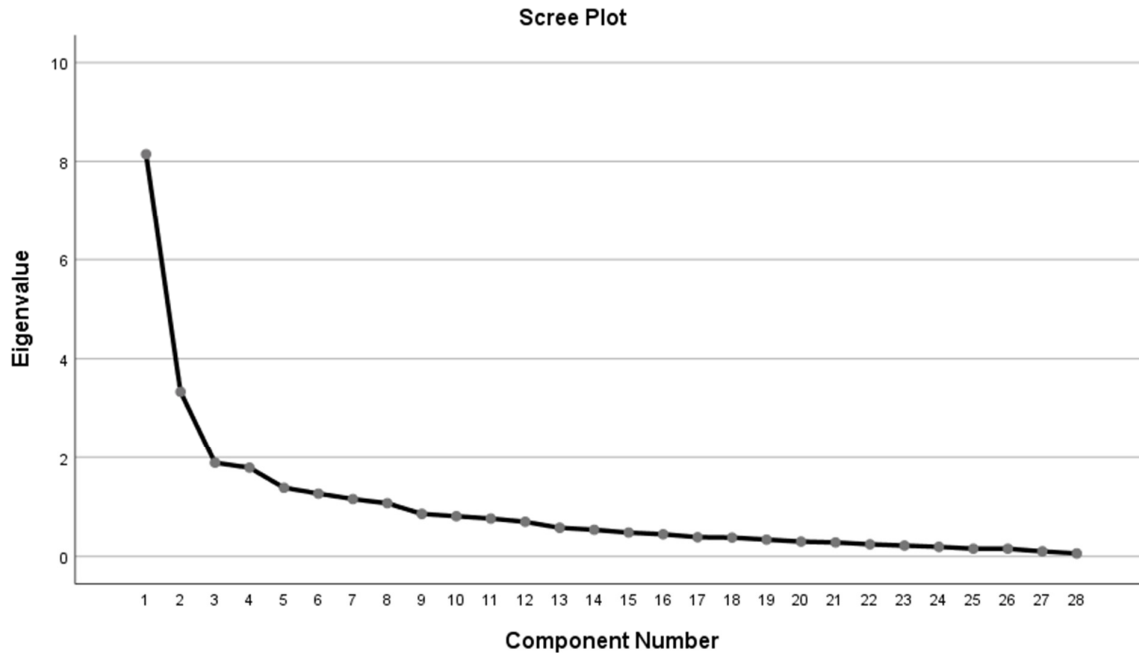
FIGURE 7: Scree Plot

5.3.3.3 Percentage of Variance Criterion

The purpose is to confirm the practical significance for the derived factors. This is achieved by ensuring that they explain at least a specified amount of variance (Hair et al., 2010). A result that accounts for 60% of the total variance (and in some instances, even less) is deemed as satisfactory.

Table 18 indicates that the eight (8) factors identified were able to explain 71.53% of the variance in the data set. This indicates a high degree of correlation in the Factor Analysis and satisfies the minimum threshold of 60% (Hair et al., 2010). A criterion of explaining >60% of the variance would have given a six (6)-factor solution. Instead, eight (8) factors are identified, since the statistical package retains factors with eigenvalues >1 and the factor loadings were greater than 0.5, which made the two (2) additional factors practically significant (Hair et al., 2014, p. 115). A high eigenvalue does not necessarily mean that the particular factor accounts for a large amount of variance across the sample. It is possible that the factor could explain the variance in one cluster of variables, but not in another. However, the best method to determine the optimal number of factors to retain was a maximum likelihood Factor Analysis, since that

99

measure tests how well a model of a particular number of factors accounts for the variance within a dataset (Costello & Osborne, 2005). The rotated sums of squared loadings show that the rotation is distributed evenly and validates that eight factors were indeed present.

TABLE 18: Eigenvalues and Factors Loadings

Total Variance Explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,147	29,095	29,095	8,147	29,095	29,095	3,955	14,124	14,124
2	3,335	11,909	41,004	3,335	11,909	41,004	2,907	10,380	24,505
3	1,888	6,742	47,746	1,888	6,742	47,746	2,784	9,942	34,447
4	1,788	6,385	54,131	1,788	6,385	54,131	2,307	8,238	42,685
5	1,383	4,939	59,070	1,383	4,939	59,070	2,297	8,202	50,887
6	1,264	4,515	63,585	1,264	4,515	63,585	2,074	7,409	58,296
7	1,155	4,127	67,711	1,155	4,127	67,711	1,965	7,018	65,314
8	1,070	3,823	71,535	1,070	3,823	71,535	1,742	6,220	71,535
9	0,856	3,058	74,592						
Extraction Method: Principal Component Analysis.									

5.3.4 Factor Loadings-Rotated Component Matrix

A factor loading indicates "how strongly a measured variable is correlated with a factor" (Zikmund et al., 2010, p. 594). It shows the degree of correspondence between a variable (MO) and the factor, with higher loadings making the variable illustrative of the factor (Hair et al., 2014). "Factor loadings are the means of interpreting the role each variable plays in defining each factor". (Hair et al., 2014, p. 110). This loading can range from 0 to 1. However, "loadings of ±0.5 or greater are considered practically significant" (Hair et al., 2014, p. 115). The rotated component matrix, sometimes referred to as 'the loadings', is the key output of Principal Components Analysis. The goal of rotation is to simplify the data structure; however, rotation cannot improve the amount of variance extracted from the items (Costello & Osborne, 2005).

The "Varimax rotation method" was used to determine the eigenvalues and produce the rotated component matrix in Table 19 below. The rotated component matrix contains estimates of the correlations between each of the variables and the estimated components. The Varimax rotation used was an orthogonal rotation. Orthogonal rotations are used when factors are assumed to be independent (Field, 2009; Tabachnik & Fidell, 2013; Rietveld & Van Hout, 1993). Non-orthogonal or oblique methods are used when factors are assumed to be correlated. If all questions in a survey are expected to measure the same construct, then an oblique rotation is appropriate. The identification of (eight) 8 factors immediately implies that all questions in the survey were not aimed at measuring the same construct, however multicollinearity between the factors was certainly possible.

 In this study, items that loaded greater than 0.5 on a factor were included.
Cattell (1966, pp. 26-27) suggests Interpretability criteria for Factor Analysis:

1) There are at least three variables (items) with significant loadings on each retained component (latent variable)
2) The variables that load on a given component share the same conceptual meaning.
3) The variables that load on different components seem to be measuring different constructs.
4) The rotated factor pattern demonstrates simple structure.

The simple structure here means that:
1) Most of the variables have relatively high factor loadings on only one component (factor), and near-zero loadings on the other components.
2) Most components have relatively high factor loadings for some variables (items), and near-zero loadings for the remaining variables.

TABLE 19: Factor Loadings

Rotated Component Matrix[a]								
	Component							
	1	2	3	4	5	6	7	8
B1_B01 I measure student satisfaction frequently	0,175	0,297	0,081	0,111	0,138	0,189	0,801	0,024
B1_B02 I measure student satisfaction systematically	0,047	0,156	0,031	0,085	0,052	0,073	0,897	0,080
B1_B03 I interact with industry to find out what students will need in the future	0,084	0,153	0,147	0,077	0,164	0,875	0,132	0,071
B1_B04 I interact with industry to find out what organisations will need in the future	-0,024	0,121	0,155	0,155	0,182	0,858	0,112	-0,002
B1_B05 In my communication with my colleagues, I periodically review the likely effect of changes in our educational environment, on our students	0,391	-0,047	0,038	0,146	0,622	0,275	-0,019	0,088
B1_B06 I obtain ideas from my students on how to improve the master's program to better serve our students	0,315	0,193	-0,015	0,241	0,577	0,192	-0,017	0,103
B1_B07 I carry out frequent research on our students in order to know what their future needs will be.	0,071	0,153	0,300	-0,114	0,631	0,228	0,217	0,155
B1_B08 I review our supervision development efforts with colleagues to ensure that they are in line with what students want	-0,039	0,321	0,269	0,240	0,637	-0,039	0,164	-0,199
B1_B09 I contact masters students who have graduated with us in order to learn their perceptions as to the quality of our program	0,007	0,887	0,116	0,007	-0,002	0,196	0,152	0,052
B1_B10 I contact masters students who have graduated with us in order to learn their perceptions as to the quality of our supervision.	0,116	0,904	0,063	0,031	0,189	0,127	0,105	0,079
B1_B11 I contact masters students who have graduated with us in order to learn their perceptions as to the quality of our support services	-0,009	0,817	0,132	0,128	0,136	-0,028	0,207	0,113
B1_B12 I keep in touch via social media with current students regularly	0,096	0,040	0,130	0,188	0,023	0,078	0,002	0,855
B1_B13 I keep in touch via social media with potential students regularly	-0,029	0,206	0,286	0,005	0,074	-0,018	0,136	0,801
B1_B14 I regularly gather market data/information to be used to improve our master's student experience	-0,040	0,328	0,395	0,242	0,277	0,119	0,171	0,218
B2_B15 I am able to detect changes in our students' preferences rapidly	0,097	0,039	0,290	0,311	0,370	0,451	0,096	-0,147
B2_B16 I spend time with other supervisors in the department discussing students' future needs	0,194	0,055	0,304	0,544	0,299	0,236	0,143	-0,173
B2_B17 I encourage our students to make comments /suggestions about their experience at our institution	0,259	0,056	0,128	0,778	0,249	0,126	0,034	0,206
B2_B18 I encourage our students to complain if their experience is not positive at our institution	0,191	0,074	0,105	0,856	-0,038	0,044	0,099	0,116
B2_B19 I pass on information when something important happens to a student or group of students, such that the entire institution is aware of this information in a short time	0,039	0,296	0,512	0,182	0,077	0,145	-0,106	0,181
B2_B20 I disseminate data on student satisfaction levels to my department and research heads	0,153	0,164	0,585	0,381	0,095	0,121	0,305	0,133
B2_B21 I share data on industry satisfaction of our graduates at all levels at this institution on a regular basis	0,001	0,096	0,725	0,078	0,214	0,221	0,240	0,146
B2_B22 I try to circulate documents that provide information about students to appropriate departments	0,180	0,003	0,794	0,038	0,085	0,023	-0,061	0,158
B2_B23 I try to bring a student with a problem together with a service or person that helps the student resolve that problem	0,541	0,129	0,438	0,229	-0,327	-0,005	-0,064	-0,092
B2_B24 I try to help students achieve their goals	0,798	-0,080	-0,142	-0,049	0,098	0,061	0,036	0,128
B2_B25 I respond quickly if a student has any problems with the master's program	0,913	0,060	-0,010	0,094	-0,023	0,064	0,054	-0,005
B2_B26 I take action when I find out that students are unhappy with the quality of our supervision.	0,795	0,075	0,149	0,170	0,181	-0,058	0,110	0,011
B2_B27 I take action when I find out that students are unhappy with the quality of our support	0,828	0,009	0,190	0,199	0,134	-0,044	0,091	0,027
B2_B28 I jointly develop solutions for students with my colleagues	0,561	0,066	0,264	0,196	0,197	0,100	0,003	-0,037

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

The interpretability criteria set out by Cattell (1966) suggest that factors 6 (Industry interaction), 7 (Measuring student satisfaction) and 8 (Social media usage) are questionable in terms of the interpretation that should be inferred from these factors. These criteria suggest that a future study may benefit from improving the questionnaire to include more questions that may relate to the exploratory factors identified in this study.

Furthermore, the fact that items 14 and 15 from the questionnaire do not appear to load on any of the 8 (eight) retained factors in the EFA warrants further investigation. These factors were meant to measure gathering of market data and ability to detect student preferences rapidly. A quick inspection reveals that items 14 and 15 have factor loadings above 0.3 for factors (2, 3) and (4, 5, 6), respectively.

The fact that these items have non-zero loadings on multiple factors suggests potential correlation between the factors. This can be confirmed with an examination of the factor correlation matrix. Each of the questions were meant to capture 1 of the 8 dimensions of MO. Questions 14,15 have multiple factor loadings above 0.3. This suggests that the questions could have been better designed to capture only 1 of the 8 dimensions of MO. Hence, these 2 items were removed from the statistical analysis.

5.3.4.1 Factor Labelling

There are no rules for the naming of factors, apart from giving names that best represent the variables within the factors. (Yong & Pearce, 2013). Thus, it is a subjective, inductive, intuitive and theoretical process. Henson and Roberts (2006) advance, that a minimum of two or three variables must load on a factor, thus ensuring a more meaningful interpretation.

The labels below display the eight (8) factors that comprise the MO measure at University X. They are reflective of the theoretical and conceptual intent. Each factor was named according to the common themes that loaded onto the factor.

TABLE 20: Factor Labelling and Related Statements

Factor Labelling	Questions linked to Factor
Supervisor Response-F1	I try to bring a student with a problem together with a service or person that helps the student resolve that problem.
	I try to help students achieve their goals.
	I respond quickly if a student has any problems with the master's programme.
	I take action when I find out that students are unhappy with the quality of our supervision.
	I take action when I find out that students are unhappy with the quality of our support.
	I jointly develop solutions for students with my colleagues.
Alumni Feedback-F2	I contact master's students who have graduated with us in order to learn of their perceptions as to the quality of our programme.
	I contact master's students who have graduated with us in order to learn their perceptions as to the quality of our supervision.
	I contact master's students who have graduated with us in order to learn their perceptions as to the quality of our support services.
Information Dissemination--F	I pass on information when something important happens to a student or group of students, such that the entire institution is aware of this information in a short time.
	I disseminate data on student satisfaction levels to my department and research heads.
	I share data on industry satisfaction of our graduates at all levels of this institution on a regular basis.
	I try to circulate documents (e.g., emails, reports, newsletters) that provide information about students to appropriate departments.
Encouraging Student Feedback-F4	I spend time with other supervisors in the department discussing students' future needs.
	I encourage our students to make comments / suggestions about their experience at our institution.
	I encourage our students to complain if their experience is not positive at our institution.
Programme Relevance-F5	In my communication with my colleagues, I periodically review the likely effect of changes in our educational environment on our students.
	I obtain ideas from my students on how to improve the master's programme to better serve our students.
	I carry out frequent research on our students in order to know what their future needs will be.
	I review our supervision development efforts with colleagues to ensure that they are in line with what students want.
Industry Interaction-F6	I interact with industry to find out what students will need in the future.
	I interact with industry to find out what organisations will need in the future.
Measuring Student Satisfaction-F7	I measure student satisfaction frequently.
	I measure student satisfaction systematically.
Social Media Usage-F8	I keep in touch via social media with current students regularly.
	I keep in touch via social media with potential students regularly.

The results from the EFA found that eight (8) factors essentially emerged as eight (8) dimensions of MO behavior. This was interesting, because the literature and original survey identified three (3) broad dimensions of MO, namely generation of information, dissemination of information and response to market information. Figure 8 situates each of the factors under the appropriate MO category according to the Jaworski and Kohli (1993) model of MO.

Information Acquisition/Generation	Information Dissemination	Co-ordination of Strategic Response
• Factor 2 - Alumni feedback • Factor 4 - Encouraging Student Feedback • Factor 6 - Industry Interaction • Factor 8 - Social Media usage	• Factor 3 - Information Dissemination	• Factor 1 - Supervisor response • Factor 5 - Programme relevance • Factor 7 - Measuring student satisfaction

FIGURE 8: Market Orientation - 8 Dimensions of MO Behaviour

Examining the component correlation matrix displayed in Table 21, the following correlations between factors are noteworthy:

- Alumni Feedback (factor 2) and Supervisor response (factor 1) to student needs are strongly negatively correlated. This negative correlation could indicate that once students graduate, the student/supervisor relationship is terminated. Master's students who have graduated are not consulted to share their experiences of the programme.
- Social media usage (factor 8) and Measuring student satisfaction (factor 7) have moderately positive correlation, meaning both of these factors move in tandem.

TABLE 21: Component Correlation Matrix

F1 Supervisor Response	**0.753**							
F2 Alumni Feedback	-0.772	**0.870**						
F3 Information Dissemination	-0.285	-0.454	**0.663**					
F4 Encouraging Student Feedback	0.172	0.455	0.139	**0.738**				
F5 Programme relevance	0.194	-0.094	-.192	-0.608	**0.618**			
F6 Industry Interaction	-0.075	-0.361	-.293	0.298	-0.217	**0.866**		
F7 Measuring Student Satisfaction	0.116	-0.220	0.562	-0.546	-0.216	0.077	**0.851**	
F8 Social media usage	0.103	0.144	-.106	0.071	-0.671	0.684	-0.184	**0.828**

5.3.5   Reliability

Reliability was also assessed by Cronbach's Alpha (**α)** and composite reliability (CR). Reliability values of over 0.8 are indicative of robust reliability, whereas values between 0.6 and 0.8 are suggestive that reliability is acceptable (Wiid & Diggines, 2013). Cronbach's α values ranged from 0.710 to 0.905, and the CR values ranged from 0.711 to 0.903 thereby reflecting robust and acceptable reliability (refer to Table 22).

Highly correlated items will also produce a high alpha coefficient. In fact, if the alpha coefficient is very high (i.e., >0.95) then there is a risk of redundancy in the items designed to measure each factor. The alpha coefficients found in Table 22 do not suggest that reliability is artificially inflated by the number of items loading on a factor (construct), or serial correlation between items loaded on a factor (construct).

TABLE 22: Supervisor Market Orientation Factors - Cronbach's a, CR, AVE

	Cronbach's α	CR	AVE
Supervisor Response	0.861	0.883	0.566
Alumni Feedback	0.905	0.903	0.757
Information Dissemination	0.768	0.753	0.440
Encouraging Student Feedback	0.785	0.776	0.545
Programme Relevance	0.710	0.711	0.381
Industry Interaction	0.830	0.858	0.751
Measuring Student Satisfaction	0.860	0.839	0.723

Social media usage	0.754	0.814	0.686

5.4 Validity

Convergent validity was evaluated via factor loadings and average variance extracted (AVE). The factor loadings of the supervisor market orientation construct ranged from 0.533 – 0.970 (refer to **Table 19**), which were all greater than 0.5. The AVE ranged from 0.381 – 0.757, (refer to **Table 22** above), hence all surpassed the threshold level of 0.5, except for two constructs. However, the Information dissemination by the supervisor and Programme Relevance factor loadings were all above 0.5, which is suggestive of convergent validity (Bagozzi & Yi, 1988, p.74-94).

Discriminant validity was evaluated by calculating the square root AVE of each factor, which must be greater than the factor correlations (Fornell and Larcker, 1981, p.39-50). The square root of AVE of each factor for the supervisor MO, all exceeded the correlation values (refer to **Table 22** above).

5.5 Frequency Analysis for Exploratory Factors Identified

Eight (8) factors (variables) were found to explain the extent that MO was practiced by research supervisors. It has now been demonstrated that (1) the data used in the analysis was suitable for factor extraction, (2) the factor loadings and resultant identified set of factors are reliable, and (3) the factors are valid constructs through convergent and discriminant validity analysis. The discussion that ensues looks at which of the eight (8) dimensions of MO that were most commonly implemented by research supervisors at University X. Figure 9 depicts the supervisor responses (agreement with statements) in terms of the operationalisation of the eight (8) factors. Based on the analysis of supervisor responses, the eight (8) factors that emerged indicate the level of IMO of supervisors. The percentages below represent the computed weighted average of the supervisors' positive responses against each of the 8 factors. In other words, their level of agreement with the statements found in the survey. Each of these factors are discussed in greater detail below.

WEAK	MODERATE	STRONG

0---50---100

29,7 F2   49 F3   86,4 F1

61,6 F5   71,5 F 4

48,4 F6

47,2 F7

46.1 F8
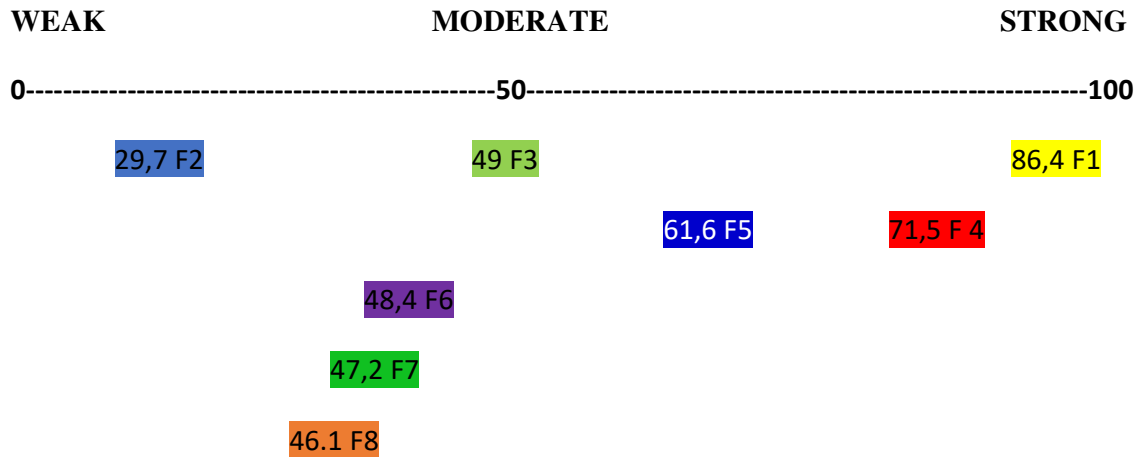
FIGURE 9: MO Supervisor Responses (agreement)

5.5.1 Factor 1: Supervisor Response

Six Likert scale statements/questions were utilised to consider the **Supervisor's Response** in terms of responding to student's needs. This was done by computing the weighted average. This factor is important to establish how responsive and willing supervisors are to assist students within the master's programme. It points to the level of support students are expected to receive from their research supervisors.
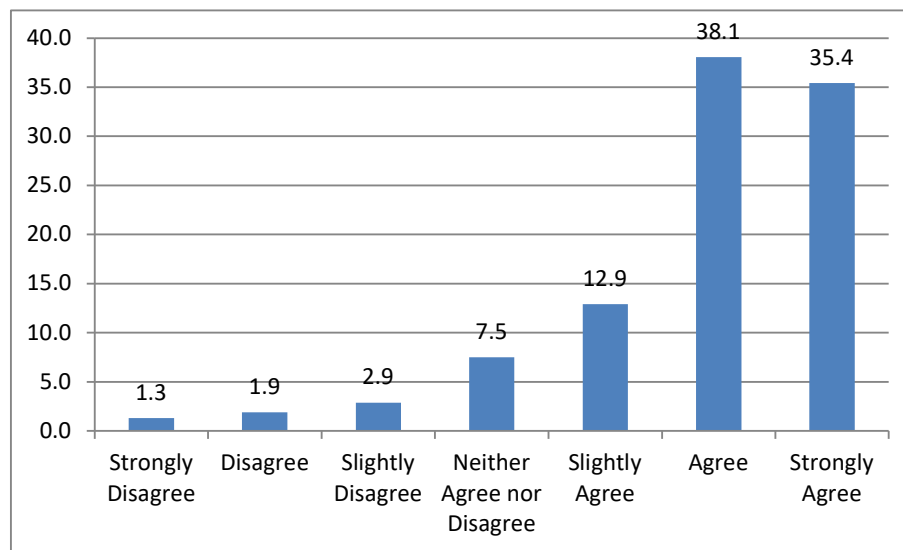
FIGURE 10: Supervisor Response

The majority of respondents (86.4%) agreed (slightly agreed, agree and strongly agreed) with **Supervisor Response,** whereas 6.1% disagreed (slightly disagreed, disagree and strongly

disagreed). This high level of agreement is a positive factor favouring supervisors, who are offering support to students based on their individual needs. This distribution of responses is in line with what was expected from the questions. This factor also suggests that Supervisor Response to student needs is largely a favourable or agreeable dimension of MO implemented by supervisors.

5.5.2   Factor 2: Alumni Feedback

Three Likert scale questions were utilised to establish **Alumni Feedback** (as perceived by supervisors) by computing the weighted average. This factor is important because it is through a carefully monitored feedback system that the master's programme can be reviewed and improved to facilitate a smoother journey for students and supervisors alike.
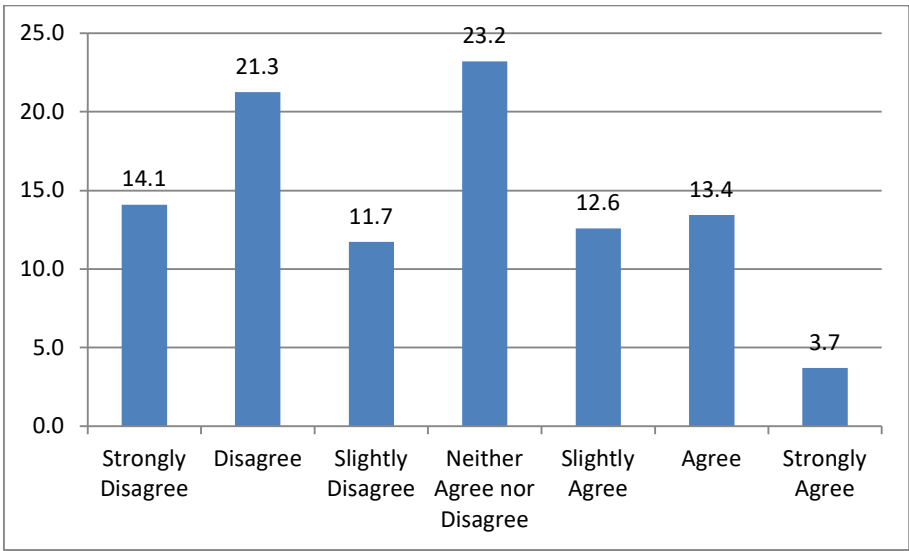
FIGURE 11: Alumni Feedback

Figure 11 provides an indication of how many supervisors have made contact with students who have graduated with a master's degree. Nearly half of respondents (47.1%) disagreed (slightly disagreed, disagree and strongly disagreed). This meant that they had no contact with alumni. 29.7% of supervisors agreed (slightly agreed, agree and strongly agreed) that they engage with alumni about their experience on the master's programme. This indicates that just under 50% of supervisors do not make any contact with past alumni to solicit their feedback on the master's programme. These results also suggest that once a student graduates from

University X, there is no formal mechanism in place to track their career trajectories or the industries they find employment in. Furthermore, results imply that there is no record of where students who are interested in pursuing doctoral studies apply for admission. If they do not choose University X, where do they go, and why?

5.5.3 Factor 3: Information Dissemination

Four Likert scale questions were utilised to establish the factor **Information Dissemination,** by computing the weighted average. The questions asked of supervisors were related to dissemination of information about master's students across the institution, faculty and department. The crux of the questions were based on sharing relevant, important information about master's students throughout University X.
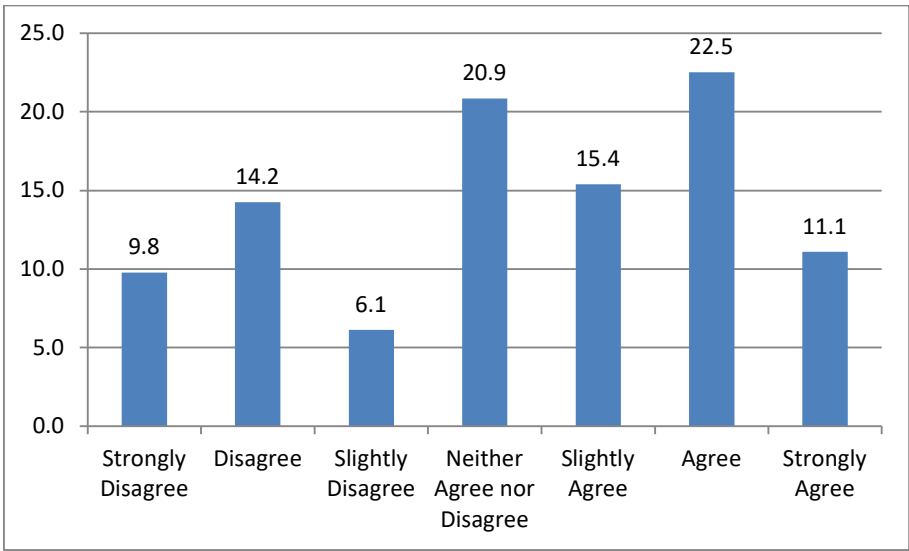
FIGURE 12: Information Dissemination

49% of the respondents (slightly agreed, agree and strongly agreed) were in agreement that they did share valuable information across the various levels of University X. 30% of respondents indicated that they do not share any information across University X. Sharing of information is considered vital for a co-ordinated, integrated, user-friendly process that supports and helps masters' students to achieve success. What has not been established is how, and on which platforms, this information is shared or disseminated.

5.5.4   Factor 4: Encouraging Student Feedback

Three Likert scale questions were utilised to establish whether master's students were **encouraged to provide feedback** to their supervisors**.** This was done by computing the weighted average. This factor reflects whether students were just recipients of their supervisor's feedback or whether they were encouraged to reciprocate freely with their own views. What feedback mechanism was in place to facilitate this student feedback?
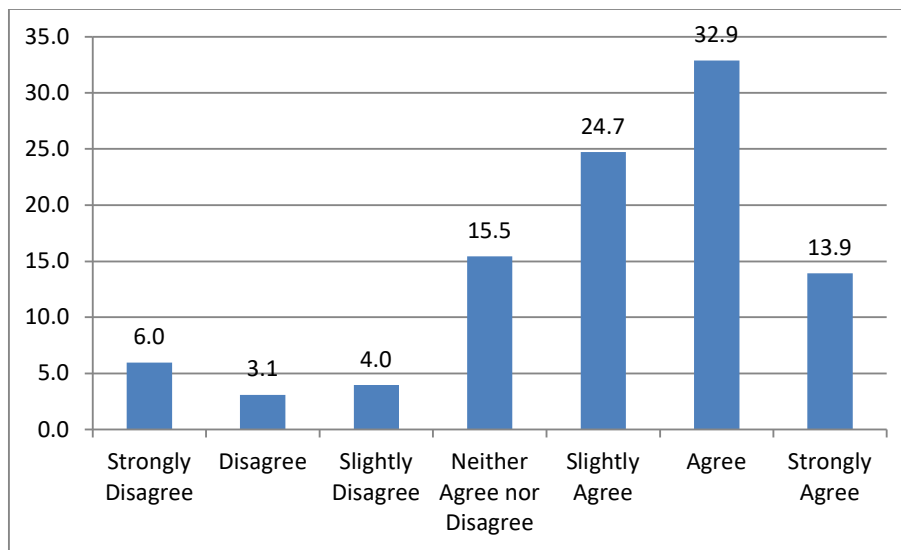
FIGURE 13: Encouraging Student Feedback

Almost 71,5% of supervisors agreed (slightly agreed, agreed and strongly agreed) that they engaged with their students and other supervisors to encourage sharing of their experiences, communicating any recommendations to improve the programme and how best to meet their (students) needs. 13,1% disagreed (slightly disagreed, disagreed and strongly disagreed) indicating that they did not encourage students to provide any feedback. The frequency of encouraging student feedback suggests that this is a highly employed method.

5.5.5   Factor 5: Programme Relevance

Four Likert scale questions were utilised to determine how supervisors determine the relevance of the programme offering. This was done by computing the weighted average. This factor

looks at the balance between satisfying student needs, aligning the programme offering with industry needs and improving the current master's programme offering. To achieve this balancing act, input from colleagues and students as well as the supervisors' personal reflections were needed.
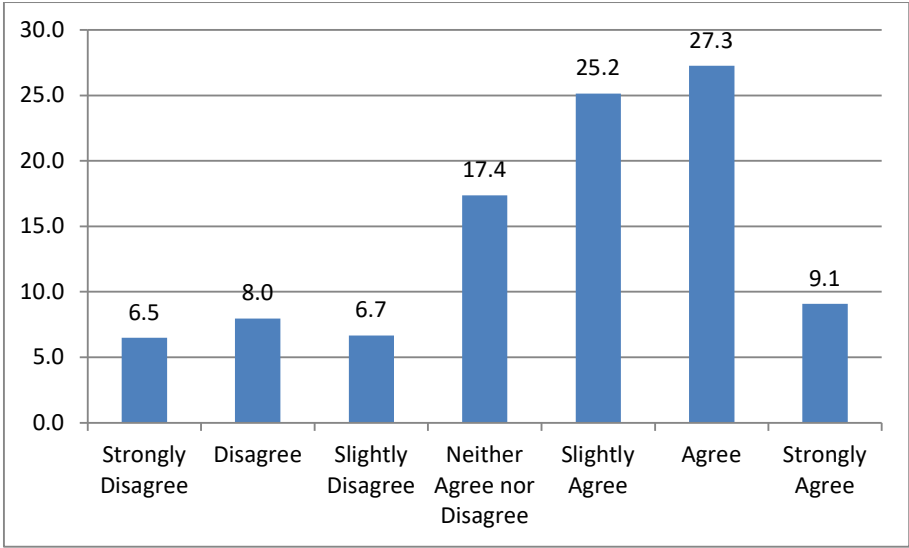
FIGURE 14: Programme Relevance

61.6 % of respondents agreed (slightly agreed, agreed and strongly agreed) that they glean information and feedback from colleagues, students and their own reflective practices. 21.2 % disagreed (slightly disagreed, disagreed and strongly disagreed) with this sentiment. The polarity in the responses is important to note because it could suggest that certain supervisors are more confident through experience, to engage with colleagues and students. These results call into question, however, whether University X has formal feedback mechanisms in place or share platforms where this information can be collated.

5.5.6   Factor 6: Industry Interaction

Two Likert scale questions were utilised to establish whether supervisors interacted with industry to match prospective student and industry needs. Supervisors were asked whether they interacted with industry to glean information on how best to match the needs of industry with that required of master's students.
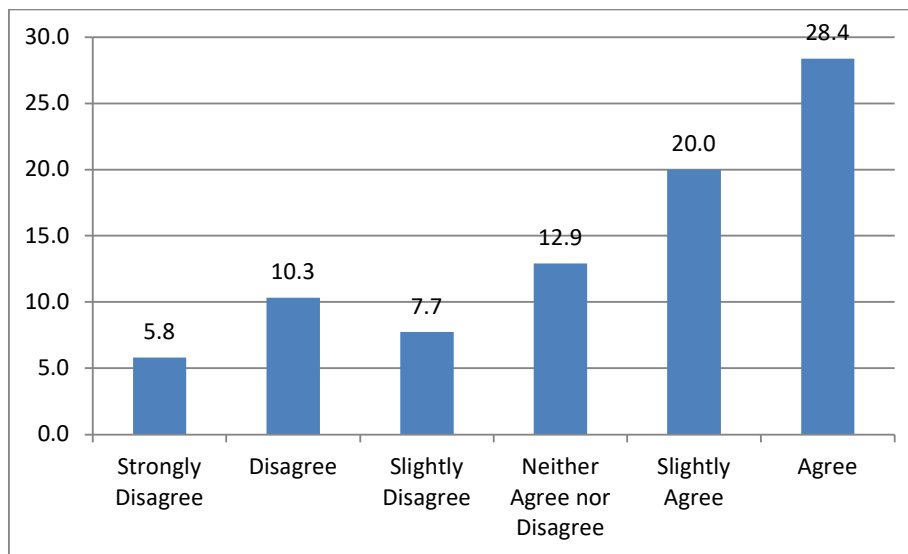
FIGURE 15: Industry Interaction

About 48,4 % of respondents were in agreement (slightly agreed and agreed) that they matched student needs with those of industry. 23.8% of respondents did not share this sentiment. Strategic industry partnerships are important when it comes to securing research funds, focusing on topics that align to the National Development Plan goals and being au fait with the prevailing trends in the market. Master's students need to be equipped with abilities and skills that can be applied within their chosen fields of employment.

5.5.7   Factor 7: Measuring Student Satisfaction

Two Likert scale questions were utilised to establish how supervisors **measured student satisfaction** levels**.** This was done by computing their weighted average. Supervisors were asked whether they measured student satisfaction frequently and systematically. This factor questions whether a structured, timely feedback mechanism that monitored master's students' satisfaction levels was in place.
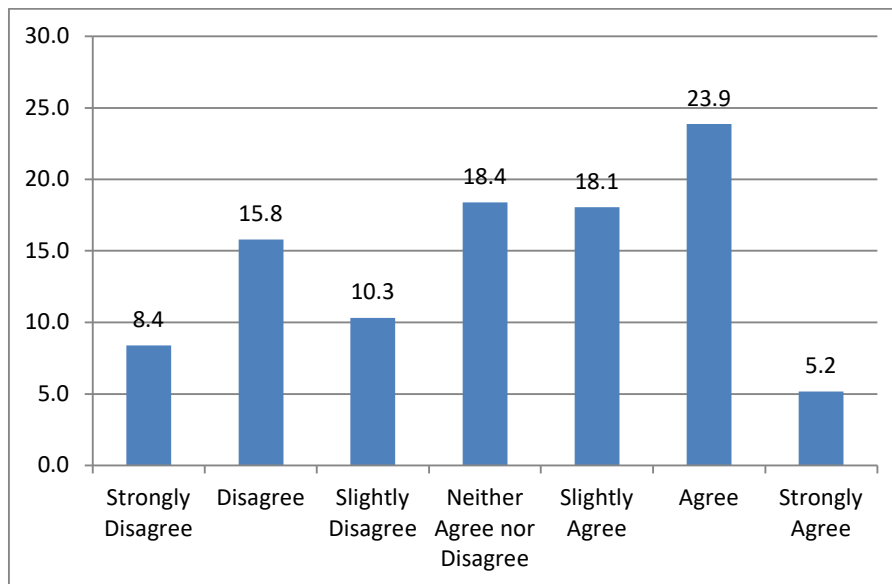
FIGURE 16: Measuring Student Satisfaction Levels

Nearly half the respondents (47,2%) were in agreement (slightly agreed, agreed and strongly agreed) that they do in fact carry out systematic, frequent student satisfaction surveys. Almost 35% of respondents indicated that this activity did not take place. This result conflicts with the response at the beginning of the survey where 64% of supervisors agreed that master's students were never formally evaluated during their master's journey at University X.

5.5.8 Factor 8: Social Media Usage

Two Likert scale questions were utilised to establish the level of **social media usage** by the supervisor**.** This was done by computing the weighted average. The current era of technology supports various social media platforms. Many students engage with these social media platforms, so it was important not to ignore this tool of communication. The two questions were based on keeping in touch with current and potential students regularly.
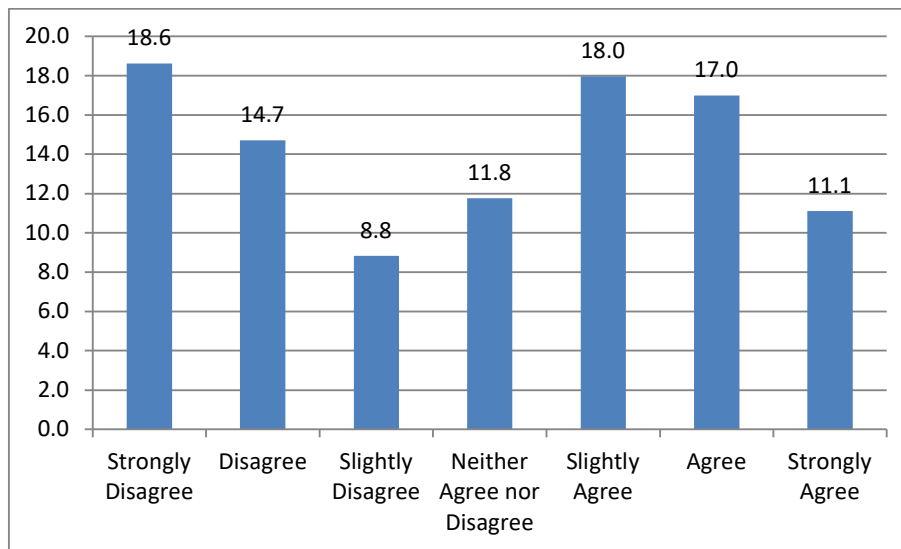
FIGURE 17: Social Media Usage

It was noted that 46,1 % of respondents agreed (slightly agreed, agreed and strongly agreed) with these 2 statements, whilst 42,1% disagreed (slightly disagreed, disagreed and strongly disagreed) that social media was not used as a communication tool. Looking at the age profile of supervisors, respondents in older categories might be resistant to the use of social media. It raises the question: to what degree would a supervisor, or perhaps the institution, faculty or department as a collective, use social media as a communication tool to keep students informed.

5.6   Supervisor MO Factors and Influence of Supervisor Characteristics

These are measures of the level of individual supervisor orientation and the influence of individual supervisor characteristics. The Wald Chi-Square test, via a generalised linear model (GLM), showed that there was a significant difference for two of the supervisor (MO) factors. (refer to Table 23).

TABLE 23: Supervisor Market Orientation (mean, SD, & p.)

Supervisor Market Orientation	Mean	SD	*p*
Supervisor Response	5.848	0.962	0.402
Alumni Feedback	3.537	1.597	0.001**
Information Dissemination	4.298	1.388	0.030*
Encouraging Student Feedback	5.042	1.305	0.900
Programme Relevance	4.649	1.158	0.121
Industry Interaction	4.142	1.616	0.008*
Measuring Student Satisfaction	4.755	1.658	0.041*
Social media usage	3.919	1.763	0.116

* Wald Chi-Square test showed a significant difference at $p < 0.05$

** Wald Chi-Square test showed a significant difference at $p < 0.001$

The means indicate favourable attitudes, as also displayed in the graphs above. The significance differences indicate that there were independent variables within the constructs, but due to the small sample size, no significance effect was shown for some of the constructs. The factors that were found to be statistically insignificant were as follows:

- Supervisor Response
- Encouraging Student Feedback
- Programme Relevance
- Social media usage

At the 99% level of confidence there was sufficient evidence to reject the null hypothesis and conclude that **Alumni feedback** displays a significance effect. It can be noted that, that the factor with the most negative response *(Alumni feedback)* is most significant and the least significant factors are those with highest means (most common favourable attitudes as a response).

Wald's Chi-Square and the Bonferroni correction post hoc pairwise tests were utilised to ascertain if there were significant differences between the supervisor characteristics via the GLM, which either had a positive or negative on the supervisor market orientation.

TABLE 24: Influence of Supervisor Characteristics on Supervisor Market Orientation Constructs

	Supervisor Response	Alumni feedback	Information Dissemination	Encouraging student feedback	Pro-gramme Relevanc	Industry interaction	Monitoring Student satisfaction	Social media usage
Faculty	0.167	0.148	0.606	0.582	0.085	0.261	0.651	0.179
Age group	0.487	0.002*	0.562	0.777	0.071	0.143	0.031*	0.474
Number of students supervising	0.164	0.665	0.385	0.878	0.308	0.138	0.211	0.477
Number of students' graduated (in the last 5 years)	0.476	0.001**	0.892	0.783	0.534	0.216	0.456	0.138
Postgrad programme in department/ faculty	0.208	0.049*	0.694	0.989	0.303	0.364	0.580	0.755
Master's student's evaluation forms	0.922	0.003*	0.024*	0.487	0.691	0.005*	0.232	0.095

* Wald Chi-Square test showed a significant difference at $p < 0.05$

** Wald Chi-Square test showed a significant difference at $p < 0.001$

Table 24 shows the tests of model effects in terms of the GLM's Wald Chi-Square tests, -which are based on the Bonferroni correction post hoc pairwise tests regarding the supervisor characteristics on the supervisor market orientation factors - and shows significant differences between the following variables:

5.6.1 Age group

Alumni Feedback (p <0.05): Supervisor respondents aged 56 - 65 years (M=5.444, SE=0.348) exhibited more positive **Alumni feedback** perceptions compared to those aged 36 - 45 (M=4.384, SE=0.343) and 46 - 55 (M=4.436, SE=0.352).

Industry Interaction (p <0.05): Supervisor respondents aged 36 - 45 (M=5.873, SE=0.389) and 46 - 55 (M=5.407, SE=0.399) showed more favourable **Industry Interaction** attitudinal responses compared to those aged 25 - 35 (M=4.658, SE=0.543).

5.6.2   Number of students graduated (in the last 5 years)

Alumni Feedback (p <0.001): Supervisor respondents who supervised 7–12 students (M=5.161, SE=0.363) showed more favourable **Alumni Feedback** responses compared to those who supervised 0 – 6 students (M=4.015, SE=0.363).

5.6.3   Postgraduate programme in department/faculty

Alumni Feedback (p <0.05): Supervisor respondents who stated that there was no postgraduate programme in their department/faculty (M=4.833, SE=0.430) exhibited more positive **Alumni Feedback** inclinations than those who responded favourably (M=4.095, SE=0.269).

5.6.4   Master's students' evaluation forms

Alumni Feedback (p <0.05): Supervisor respondents who handed out student evaluation forms annually (M=4.541, SE=0.336) showed more favourable **Alumni Feedback** compared to those who had never done so (M=3.748, SE=0.288).

Information Dissemination by supervisor **(p <0.05):**   Supervisor respondents who handed out student evaluation forms on a quarterly basis (M=4.953, SE=0.556) and every six months (M=4.981, SE=0.457) showed more positive **Information Dissemination** by supervisor sentiments compared to those who had not handed out evaluation forms (M=4.086, SE=0.284).

5.6.5   Measuring Student Satisfaction (p <0.05):

Supervisor respondents who gave student evaluation forms on an annual basis (M=5.031, SE=0.359) showed more favourable **measuring student satisfaction** attitudes versus those who had never evaluated (M=4.190, SE=0.308).

The results of the EFA presented an eight (8) factor structure that measured the extent of MO practice by research supervisors at University X. The data used in the analysis were suitable for factor extraction, the factor loadings and resultant identified set of factors were considered

reliable, and lastly, the factors were deemed valid constructs through convergent and discriminant validity analysis. A detailed discussion of the results will follow in chapter 7.

The next section will discuss the findings from the open-ended questions that supervisors responded to.

5.7   Findings of Open-ended Questions

The following open–ended questions were answered, with the semi-structured survey questionnaire that was completed by supervisors online. The open-ended questions were added to augment the statistical results. These questions provide a richer, deeper, more contextual understanding of the supervisory environment that respondents are exposed to and operate in. The open-ended questions were as follows:

- What is your overall impression of the postgraduate programme that services your students? Please explain fully.
- How does student feedback inform your supervisory skills? Please explain fully.
- Kindly indicate 3 challenges that you are experiencing as a supervisor at this institution. Please name and explain them for clarity.
- Kindly indicate 3 challenges that you are aware of that master's students are experiencing. Please name and explain them fully.

The findings from each of these questions is discussed below.

5.7.1   Question: What is your overall impression of the postgraduate programme that services your students?

The general consensus amongst research supervisors was that the programme was considered to be: "good, adequate and effective", but that there was indeed room for improvement. About 25% of respondents viewed the programme negatively, citing the following descriptions: "fragmented, struggling, burdened by bureaucracy"; whilst some respondents did not even answer this question at all. Two key themes emerged from this question: *Supervisor Support and Student Support*.

Table 25 highlights key quotes from respondents for each of the sub-themes.

TABLE 25: Supervisor Perceptions of the Master's Programme

Supervisor support	Positive	Negative	Student Support	Positive	Negative
Administrative digital system for programme		HDC system – not customer friendly Process is way too cumbersome and onerous; impacts students' progress. A lot of unnecessary bureaucracy. Admin responsibilities are dumped on departments.	Student Prepared-ness	Department is actively engaged in managing the postgraduate programme. Institution and Faculty adding enriching programmes.	Not academic-ally prepared; require so much support. Students need more structured support; [they're] expected to understand the process.
Capacity Building Supervision	Programme is well structured, but we have a severe shortage of supervisors. Improved significantly over the past few years.	I feel very isolated in the supervision process, don't have the time to go on these courses. Do not want to get involved with supervising because of admin involved. University Supervisor's with co-supervisors to be mentored and coached so that they can become principal supervisors in the future. Must be given credit/ award or be recognised for growing and sustaining postgraduate supervision.	Post graduate workshops	Excellent programme with compulsory workshops Has improved in recent years. Structured and well organised programme.	Only attend workshops and training sessions when they can, as most either [live] a distance away or are in full-time employ-ment. Unsuitable for part-time students.
Workspaces and Resources		Requires improve-ment and more resources such as postgraduate laboratory, producing work in a particular field which affects the competitiveness and standing of our institution.			

		No forward planning to accommodate research expansion in terms of research leaders being able to establish well- funded laboratories to provide opportuni-ties for cutting- edge research.			

5.7.1.1 Supervisor Support

Supervisor support was further broken down into the following sub-themes:

Administrative digital system for programme

Supervisors' overall sentiment towards the administrative digital system used on the postgraduate programme was negative. They did not find the process to be enabling; rather, they felt it added to their already heavy workloads. There was little support for this administrative system from supervisors.

Capacity Building Supervision

There was agreement that supervisory capacity initiatives were offered by University X. However, the need for this training to be supplemented with a strong mentorship programme was encouraged, especially for younger and new supervisors. This would help address supervisor isolation, they felt. It can be argued that the role of a co-supervisor could be considered a mentorship. Those who were prepared to grow/mentor supervisory capacity, wanted credit or reward for their efforts.

Work Spaces and Resources

The general sentiment was that more resources needed to be allocated for upgrading or adding on laboratories and workspaces that support cutting edge research. Supervisors viewed these upgrades as enhancing the competitiveness and standing of University X, thus attracting a better- "quality" student.

5.7.1.2 Student support

Student Preparedness

The general consensus was that students were being supported by their departments and the institution with postgraduate workshops. Respondents saw the need for a more structured student support mechanism that clearly detailed the steps of the journey, what is expected of them, and the necessary level of commitment needed. This "roadmap" was deemed necessary so that students are fully aware of what the postgraduate programme entails from the outset.

Postgraduate workshops

Postgraduate workshops were praised for their structure and content. However, the timing of these workshops excluded a large cohort of part-time students who worked during the day.

5.7.2   Question: How does student feedback inform your supervisory skills?

Two-thirds of supervisors surveyed indicated that student feedback did exist. This question led to some ambiguity, because a number of respondents interpreted the question as *giving* feedback to the students as opposed to *receiving* student feedback. 25% of respondents indicated a lack of formal feedback from students.

The key theme of FEEDBACK will be discussed in the following sub-categories:
- Communication with Students
- Interventions in Place
- Use of Technology

5.7.2.1 Communication with students

Communication is a vital component of the master's journey. The relationship between student and supervisor is crucial to facilitate growth and progress. Supervisors were generally in agreement that they provided feedback to students, via face-to-face meetings and email responses. The Memorandum of Understanding (MOU) that both parties agree upon and sign sets the tone for the relationship: "during the supervision period, either party could be reminded of their commitment". Supervisors found that feedback sessions that mainly constituted "their" feedback to the student were sufficient as a measure of evaluation. If issues did arise, then the student was expected to bring it up during one of the meetings: "feedback is in our conversation

at our weekly meetings". This perspective assumes that students are confident enough to approach supervisors, and that supervisors are open to being critiqued or questioned.

Supervisors acknowledged that there was a "gap" between the feedback they provided and students' perceptions of their supervisory skills. The quotes below show that they were in favour of a more formal feedback mechanism that allowed for anonymous feedback. For some supervisors this was just another "form" of feedback. "Feedback will provide valuable tips on how to improve my practice of supervision. Good idea to formalise it; helps me to improve on my practices."

One supervisor in particular was very vociferous in his response that a feedback form was: "used to 'measure' us out of context in an understaffed and overworked situation will not improve matters". It can be inferred then, that for some supervisors, the evaluation form was perceived as a personal appraisal and/or punitive measure, when in fact it is meant to inform their supervisory skills and practice.

What has come through strongly is the need for a formal feedback mechanism that might not necessarily be just a tick-box exercise. Supervisors were keen to receive valuable student feedback that allow them to be more responsive to student needs.

5.7.2.2 Interventions in Place
A number of interventions are practiced by supervisors in the absence of a formalised feedback mechanism. Generally, supervisors viewed meetings as a platform for any feedback. There were, however, a range of additional methods supervisors undertook to receive feedback on their supervisory skills and practices. These included: "students writing reflective letters that captured the highs and lows of their master's journey"; "ensuring fortnightly meetings with students"; and "facilitating monthly classes with new master's students which forces them to work". These were mainly individual supervisor initiatives customised to their student's needs. Supervisor experience played a role in terms of how honed their skills become over a period of time: "Since this is my first year, I am still a rookie."

5.7.3.3 Use of Technology

More and more universities are being encouraged to practice a more blended learning approach to learning (De Beer & Mason, 2009). Blended learning includes the use of technology as a tool to bridge the time and spatial challenges part-time students, especially, face. Some supervisors at University X have embraced technology in the following ways:

• "using the flipgrid app to get feedback from the students; this app provides both audio and video content."
• "recently created a Google feedback form."
• "I make use of a Dropbox system with my students in which I shall review and provide feedback via the technologies available in Dropbox."

If used and managed correctly, technology could be a powerful tool to complement the current master's programme, provided that students had equal access to wi-fi networks.

5.7.4   Question: Challenges that you are experiencing as a supervisor at this institution.

Postgraduate research is the lifeblood of HE institutions, thus it is expected that the programme is prioritised in terms of resources, infrastructure, capacity, shared expectations, support and a clear roadmap that guides the process to achieving success. This is not always possible given the challenging times HE is faced with and the severe resource constraints imposed on these HE institutions.

A variety of challenges were cited by supervisors. Many of the challenges experienced are probably not unique to University X. Respondents did acknowledge that University X was currently reviewing and revising policy. The general culture of academic research and the activities that support this ethos was not "felt" by many respondents. This could be attributed to the fact that University X was traditionally teaching focused; however, a shift towards a stronger research focus is underway.

The quote below captures this sentiment well:
"[This] institution is currently revising policy and trying to implement these new policies at a rapid pace. This does cause some discomfort as the goalpost is constantly moving".

The challenges faced by supervisors were further categorised into personal, institutional, and student-related challenges.

Personal	Workloads
Institution	Administrative online system + Funding
Student	Academic Writing and Level of Commitment

5.7.4.1 Supervisor Personal: Workloads + Support

Workload was cited as the main challenge that faced supervisors. Supervisors felt that research supervision was not being considered when workloads were being assigned, resulting in inequitable distribution of workloads. For many respondents, supervision was seen as an added burden over and above a full workload and administrative duties. The time constraints as a result of a heavy workload impacted on supervisors' feedback turnaround time and personal research output, and moreover cut into their family/personal time: "All supervision occurs in my spare time; little time for own research or to streamline postgraduate students' papers for journal publication".

Furthermore, supervisors were not being financially incentivised to take on this additional responsibility. Supervision is a choice, but also a prerequisite for promotion. Supervisors have to provide evidence of well-established research output together with the number of students supervised to qualify for promotion. The administrative burden that comes with supervision is another challenge supervisor's face: "Difficult to juggle full-time academic load, administrative load with the supervision of master's students". The view was that this administrative burden required "greater support" or could be managed by the postgraduate research office, freeing up the supervisor to focus on supervision.

5.7.4.2 Institution: Administrative online system + Funding

The postgraduate online digital system, together with research funding, was considered to be an institution-based challenge. Supervisors and students both use the digital system. Many supervisors agreed that the system was not very user-friendly, resulting in delays with document processing. It was even suggested that the system could be considered a barrier

inhibiting the timely graduation of students due to its bureaucratic nature: "The time that everything takes always limited by pre-set meeting dates".

A system that does not support supervisors can affect a young, upcoming supervisor's level of confidence. As expressed by one respondent: "[the] system never works and makes me feel incompetent.". This opinion was endorsed by another respondent, who identified the need for a clear user manual, or training: "There is no procedure flow chart that explains what needs to be done and who is responsible." A first-time or "inexperienced" supervisor, who was "lost" relied on mentoring and guidance from more senior colleagues.

"Funding" included procurement, well-resourced labs, designated workspaces and access to available research funds: "There is money available for all kinds of postgrad support, but it is all impossible to access without enormous time and effort". "It is a bun fight for resources". These responses indicate that research funding is available; however, access requires time, energy and effort. The onus is currently on supervisors to apply and/or endorse this funding for their respective students, which adds to their already heavy workload.

5.7.4.3 Student: Academic Writing and Level of Commitment

Master's research requires the student to engage in academic discourse with a certain degree of academic literacy. This academic literacy is usually expressed through academic writing. A challenge for many supervisors was the under-preparedness of students that entered the programme. The knowledge gap between the degree and the master's programme left many supervisors and students frustrated: "… student's inability to conceptualise and grasp their areas of interest regarding research". Many of the master's programmes mainly comprise full thesis submission, so there is no course-based component. Supervisors are tasked with upskilling the student through support workshops held by the institution, faculty and department. But supervisors felt that their attempts to bridge this gap meant little without full commitment from the student: "Their biggest concern is lack of time for their studies."

The "gap" is not an academic one alone, but also exists in students' expectations of the master's programme: "There is an expectation that the supervisor will do much of the work." The students' level of commitment is further challenged by their need to work to supplement their

incomes whilst studying. This work-life balancing act ends up placing tremendous pressure on both students and supervisors:

"Contact is mainly with supervisor and students; most of the time supervisors have to take the responsibility of following the student."

"Sometimes students do not co-operate (to the point) that it seems as if they do not understand what to do. There should be a clear policy on monitoring progress of the student".

"The research-based programmes do not support peer learning and follow-ups on the student".

The supervisors' responses quoted above indicate the level of responsibility and commitment that rests with the supervisor. Ultimately, most of the responsibility rests with the supervisor.

5.7.5   Question: Challenges that you are aware of that master's students are experiencing.

The role of supervisor often brings with it the added responsibility of assisting or directing students to overcome challenges they might be facing. Supervisors were thus in a good position to identify the many challenges that students were faced with. The following perceived student challenges were identified by research supervisors: Funding, Work-Life Balance and Student-Preparedness.

5.7.5.1 Funding

A large majority of supervisors found that students had to deal with funding challenges. These challenges were related to access to bursaries, annual tuition fees, costs associated with research, personal subsistence, and the slow and untimely release of funds that had been procured. Supervisors acknowledged that funding was available; however, they felt this amount was not sufficient enough to cater for "research-related expenses". One supervisor expressed that; "student fees, plus the need for research funds, [was] killing many studies". The student is left with the burden of securing funding for their annual tuition fees, plus any costs related to the research project and, finally, also of ensuring that they and their families are taken care off. Most funding does not cover the purchase of personal computers, and the problem is further exacerbated by the: "serious shortage of computers for postgraduate usage".

5.7.5.2 Work-Life Balance

Students are often forced to study part-time, often prioritising work over studies, so that they can meet their financial responsibilities. The need to supplement their research needs significantly impacts their levels of commitment and progress:

"Balancing study and personal life issues (studies end up being sacrificed)."

"Master's students are working, so studying adds on to their workload and they are thus failing to cope."

"This severely hampers progress".

Juggling studies and work prevents students from fully committing to their postgraduate studies. Time management becomes a major challenge, thus affecting their communication with supervisors:

"Some appear to lack motivation since they do not submit their work for review on a regular basis and do not contact the supervisor and explain why."

"They [students] often experience difficult circumstances at home, such as housing, income and family support".

The impact of these socio-economic factors on the student's ability to cope whilst having to meet the expectations of master's studies cannot be denied.

5.7.5.3 Student-Preparedness

A recurring theme that has emerged is the academic literacy and student preparedness expected of postgraduate research students. It all begins with "expectations"; students often have a false impression of what postgraduate research entails. These views are expressed below:

"They struggle to accept that a master's degree is long hours of study."

"Challenge of taking ownership of their own work."

"Despite the university arranging orientation programmes, some students are still not aware of the academic processes to be followed."

This gap in expectations then contributes to challenges with academic literacy, as expressed by one supervisor: "There is too large a jump in cognitive complexity between the undergrad and the postgrad." The demands of master's studies include: "higher level thinking, self-motivation, self-driven research and comprehension of the materials available through online

journals." To mitigate these challenges, supervisors cannot cope on their own. They require support, from both the institution and the various faculties. The sentiment expressed is that support is provided to some degree, but that a designated postgraduate writing centre that manages students' needs could be a solution to the problem. Furthermore, a lack of secure labs or designated postgraduate workspaces also contributes to the lack of community that students experience - feelings of isolation etc.: "Students indicate that they feel isolated; would love to engage with peers."

5.8 Summary of Supervisor Qualitative Findings

A summary of the open-ended questions highlights the following findings. Generally, supervisors expressed positive sentiments towards the master's programme, acknowledging, however, that there was room for improvement. Negative perceptions were related to supervisors battling with a system that was fragmented and burdened with bureaucracy. Areas which influenced their perceptions included an online digital system that added to their administrative burden; a system that does not financially reward supervisors' efforts; the need for infrastructure upgrades and a mentoring model that addresses supervisor isolation; as well as the need to develop a more structured student support system (roadmap of the programme) and to address the diversity of study requirements.

Supervisors identified a gap in perceptions with regard to their feedback and student expectations. A strong emphasis was placed on the need for a formal feedback mechanism that went beyond a tick-box exercise. Feedback interventions are practiced by some supervisors; however, this is not formalised. Generally, supervisors expressed their willingness to receive valuable student feedback that would allow them to be more responsive to student needs and to reflect on their current practices. The use of technology and social media was embraced by some.

Supervisors experienced various challenges with the programme, their students, and their own research supervision skills. Their responses indicate the level of responsibility and commitment that rests with the supervisor. Ultimately, most of the responsibility rests with the supervisor. Challenges included:

Heavy workloads that are not enabling supervisors to balance their time appropriately; unrealistic expectations of them; no financial incentive to supervise; an online digital system

that adds to their administrative burden (viewed as being bureaucratic, and not very user-friendly); limited resources, and the survival of the fittest. This is reflective of supervisor perceptions of the university management's ethos. Inexperienced supervisors indicated that they were not inducted into the processes that drive the programme, thus affecting their confidence to supervise. A call for a process flow, or guiding document was expressed, one that could elucidate what needs to be done and who is responsible.

Calls for clear policies that address the monitoring student progress were also voiced. Supervisors are further challenged by students who display a knowledge gap (conceptual- and research-related); false expectations of supervisor roles and responsibilities; their level of commitment, which is influenced by their own personal/academic challenges; and a lack of support based on peer learning initiatives.

Supervisors perceived student challenges as being mainly related to funding. As a result, they *[students]* are forced to seek employment to bridge the financial shortfalls. This then impacts the students' work/life balance scenario, which ultimately impacts on their time management and their progress, even extending their duration of study. Supervisors describe student preparedness challenges as the lack of research skills, lack of commitment to their studies and the lack of resources needed to navigate master's studies. This relates to their unrealistic expectations from the outset. Supervisors expressed that they cannot cope alone and required additional student support from the institution and the faculty. They validate students' growing feelings of isolation, citing that a lack of secure labs and designated postgraduate workspaces also contributes to the lack of community that students experience, thereby increasing their feelings of isolation.

5.9   Conclusion

This chapter presented the results of the closed-ended questions and the findings of the open-ended questions, where research supervisors were the respondents. The results indicate that supervisors do indeed practice a level of MO at University X. Factors 1,4 and 5 showed a moderate to strong implementation of MO, whilst Factor 2, Alumni Feedback, presented at the lower end of the continuum, with only a third of supervisors making contact with their students who had graduated.

The findings of the open-ended questions present a largely positive view of the master's programme. However, supervisors are exposed to various challenges that they considered inhibiting to them and the students that they supervise. Supervisors acknowledged the need for a formalised evaluation/feedback mechanism that would inform their supervision practices.

The next chapter will deal with findings of the qualitative student study, which used the critical incident technique (CIT) method.

CHAPTER 6: QUALITATIVE STUDENT FINDINGS

6.1   Introduction

The purpose of this research was to determine the role of customer experience in influencing market orientation efforts in a Higher Education (HE) setting. The primary objective of this study was to elucidate that focusing on Customer Experience (CX) rather than just evaluating customer satisfaction levels can be a greater source of information for guiding Market Orientation (MO) objectives and its implementation.

The research question that this qualitative study addressed was as follows: What are the experiences of students on the postgraduate program at Higher Education institutions? Hence, it was important to capture the "voice" of the student, recording their experience of the master's programme at University X. Twenty-four (24) masters' students were interviewed using the Critical Incident Technique (CIT) method.

This data was collected to gain insight into student experience, the emotions that were involved, the impact of the experience on their progress and finally the wish-list items that were suggested by them. Students were also asked to complete the demographic profile sheet that included questions on their gender, age, year of study, mode of study and the student's country of origin. This information was useful to allow segmentation of the sample. Additionally, 4 Likert scale questions were asked about their overall experience with the masters' programme thus far; their supervisors overall knowledge skills and abilities; support that they have received on the masters' programme and information on whether they had completed an evaluation form in the last 12 months. This information provided a quick snapshot into their perceived levels of satisfaction or dissatisfaction.

This chapter will discuss the findings from the qualitative interviews as prescribed by the CIT protocol. No a priori themes were used; all information was analysed inductively using content analysis where the focus was on participant experiences.

6.2   Profile of Masters' Students Interviewed

The table below displays the profile of the 24 master's students that were interviewed across six (6) faculties at University X.

TABLE 26: Profile of Respondents

Age			Year of Study	
	21-25	2	**Year of Study**	
	26-35	17	First Year	7
	36-45	3	Second Year	3
	46-55	2	Third Year	8
	>55	0	Fourth Year	3
Nationality	South African	11	Fifth Year	1
	Congolese/DRC	5	Sixth Year	0
	Cameroon	2	Seventh Year	2
	Burundi	1		
	Libya	1	**Gender**	
	Ghana	1	Male	12
	Zimbabwe	3	Female	12

The naming convention for student participants was based on the faculty that they were registered with, at University X. Respondents were thus named according to faculty and assigned a numerical identity. These are the codes that were used to identify respondents:

AS = Applied Sciences

EB= Engineering and Built Environment

EDUC=Education

HW=Health and Wellness

FB=Faculty of Business

FID=Informatics and Design

From the table above we can see that the majority of master's student for 2019 were between 26-35 in age. There are more international students than South African students for this survey period, whilst an equal number of male and female students were interviewed. This was not planned; it was coincidental. All 24 students were registered for a full master's thesis, there was no coursework component.

The table below indicates the breakdown of participants interviewed in terms of year of study. The majority of students were either in year 1 or year 3. Two students had exceeded the 5-year window period; their reasons were as follows:

FB1: **"**Study permit depended on it, so I had to always be registered in order to stay. But I wasn't always studying. Some years I was almost like a gap year. I was doing other things. I didn't give it my full concentration".

FB5: **"**Family commitments, work and personal issues have held me back".

What is common to both students is that their lives were very full, so master's studies were not always given a priority. Both these students were in the 26-35 age category, which further suggests that they had to balance their studies with other responsibilities. F5 got married and had two children in this time, suggesting that it was not a lack of commitment that held back her studies but motherhood that took precedence at the time.

The tabulated results in Table 27 are from a short survey that students were asked to complete after being interviewed. The findings reflected a high level of satisfaction with their supervisors, whilst departments were also viewed favourably. Faculties were considered to be "satisfactory" in terms of experience and support. Institutional support was also rated as satisfactory. The overall experience at University X was considered to be good. These results suggested a general level of positive experiences and support.

TABLE 27: Students Perceptions of Master's Programme

		Very Poor	Satisfactory	Good	Very Good	Excellent
1	My overall experience with the master's programme thus far:					
1.1	Supervisor	2	3	6	8	5
1.2	Department	2	3	9	6	4
1.3	Faculty	1	9	9	4	1
1.4	Institution	1	7	11	4	1
2	My supervisor's overall knowledge, skills and abilities	2	0	2	10	10
3	Support that I have received thus far on the master's programme					
3.1	Supervisor	3	5	3	4	9
3.2	Department	2	5	11	5	1
3.3	Faculty	5	7	7	4	1

3.4	Institution	**3**	**8**	**7**	**5**	**1**
4	Have you completed a master's student evaluation form in the last 12 months?	**YES**	**0**	**NO**	**24**	

Despite the positive perceptions, students still experienced challenges on their master's journey. The following challenges were expressed by student respondents during the interview.

6.3   Student Challenges

During the interview, master's students were first required to express the challenges they had faced. Thereafter, they were required to relate two (2) positive and two (2) negative experiences. The challenges expressed were meant to reveal the context which students found themselves having to engage with. It was important to understand their subjective perspectives of the postgraduate environment that they were exposed to. It is against this background that incidents that shaped their overall experience were reviewed.

The table below "positions" the challenges within the four (4) broad categories listed below. The frequency per category is also presented, which signifies the actual number of challenges cited.

TABLE 28: Summary of Challenges

Main Categories	Participant Rate (%)	Frequency (#)
CHALLENGES		
Total Number		**60**
Institutional	38%	23
Faculty	15%	9
Department/Supervisor	25%	15
Personal	22%	13

The two key areas where challenges were predominantly experienced were within the category of institution and department/supervisor. These challenges were internal to University X,

whilst students' personal challenges were external to University X. Just under half the challenges were related to institutional factors.

Table 29 summarises the key challenges that students faced. These challenges are explained in greater detail in the section below the table.

TABLE 29: Challenges Faced by Students

INSTITUTION	FACULTY	SUPERVISOR	PERSONAL
Communication Channels disconnect between the online system and the application office. The feedback mechanism was seen as being "poor". This in turn made it a back and forth process for the student, who needed to do the follow up.	Strong overlap between faculty-and institution- related challenges, especially with the **Online Digital System** that governs the postgraduate process. Students acknowledged the need for a system that oversees the authenticity and integrity of the degree, however this same system was also viewed as a challenge in terms of progress.	**Expectations of the Supervisor** Need to know upfront the roles and responsibilities of supervisors. **Academic Transition** A huge challenge was the gap in skills between their degree and the master's programme. It was expected that supervisors would "fill" this gap.	The main personal challenge identified by most students interviewed was related to **work-life balance.**
Funding Issues Registration, Tuition Fees, Subsistence, Operational Costs The general sentiment was that University X was not doing enough to support postgraduate students financially.			
Infrastructure Under-resourced labs, the library services available on smaller campus sites and a lack of designated workspaces.			
Online Digital System General consensus was that the system was not really working as efficiently as expected. Instead of being enabling, the system posed a major challenge (inhibits progress).			

6.3.1   Institutional Support Systems

Postgraduate students perceived challenges as emanating from a lack of postgraduate support by the institution. This meant the responsibility was shifted away from the faculty, department

and supervisor. Students ultimately held the Institution – University X – accountable for the myriad challenges they faced even prior to being registered. "In some institutions the postgraduate journey is structured in such a way that it is almost pre-determined," said one respondent. This statement encapsulates the need for a structured, clearly communicated postgraduate offering at University X.

The various sub-categories of support mentioned were as follows:
- Communication Channels
- Funding Issues – Registration, Tuition Fees, Subsistence, Operational Costs
- Infrastructure
- Online Digital System
- Overall Postgraduate Support-Skills Gap, Language Barriers, Workshops etc.

Each of these sub-categories will now be further explained:

6.3.1.1 Communication Channels

Some students found that the online application process was not a smooth, well- communicated process. Student FID1 reported that there seemed to be a disconnect between the online system and the application office. This feedback mechanism was seen as being "poor", which made it a back and forth process for the student, who was required to do the follow up. Students expressed frustration at having to send constant reminders as well as the lack of official follow-up with regard to the status of their application. Student EDUC 1 felt that interactions needed to be vocal, and face-to-face if one wanted to follow up on one's application status. This meant that the student needed to be physically on campus to ensure that their registration was processed.

International students found that registering for a postgraduate degree was a very difficult process because of the documents that were required. A lack of support from the department/supervisor meant that some students were left to deal with things themselves. Returning students had to renew these documents annually. There was a cost implication for the renewal of documents, which added to the financial burdens they were already experiencing. Students also expressed the need for proper communication channels that would clearly direct them to sources of funding available to master's students. One international

student summed it up eloquently: "Budget constraints do not allow for freedom, creativity and innovation in research."

6.3.1.2 Funding Issues

Funding was a major challenge for most of the students interviewed. This financial challenge cut across registration, tuition fees, subsistence needs and general research operational costs. The general sentiment was that University X was not doing enough to support postgraduate students financially. Student FB2 felt "prejudiced by this", because the longer one took to complete a degree, the greater your accumulated debt burden. This situation then forced students to seek employment to meet their growing financial challenges. Students' subsistence needs were not covered by funding sources, so this further exacerbated their financial woes. Students in residence are also expected to fund their own meals. Student AS2 expressed his view with the comment, "a hungry stomach cannot think".

Students found it very frustrating that their entire support system rested on the shoulders of their supervisor. Participant FB2 was very vocal in saying that in a "proper system", no supervisor would need to beg someone for funding; all funding should be applied equally. This sentiment was endorsed by another participant who overcame the financial challenge with funding that was made available by the supervisor. This suggests that students relied heavily on supervisors to guide them in sourcing and accessing funds, whilst they felt unsupported by the institution.

6.3.1.3 Infrastructure Challenges

This included under-resourced labs, the library services available on smaller campus sites and the lack of designated workspaces. Participant EDUC4 was very disappointed at the lack of facilities and resources available on the smaller campus sites. This meant going to another, larger campus site of University X or even to another university's library to access resources. The frustration was further heightened by the poorly designed student centre, which was described as having a "hospital feel". This environment was not considered conducive to postgraduate needs and left many students disheartened. Postgraduate students require access to various online resources, good wi-fi networks and physical resources within libraries. For many post- graduate students who live away from campus, access to these resources was

available on weekends only. This posed the additional challenge of there being no 24-hour facility open to postgraduate students only.

Budget constraints impact on how well-resourced laboratories are. In some cases, students had to use the resources at a different university because University X did not have the equipment or resources required. This added to their transport costs and posed a real problem if they were in full-time employment. Supervisors were expected to assist in funding issues related to labs, which again was perceived as the institution abnegating its responsibility.

6.3.1.4 Online Digital System

The majority of students interviewed were not happy with the online digital system used to manage the various postgraduate processes. These include proposal approval, ethical clearance, and thesis submission. Whilst these processes are managed within faculties, students felt that this system was institutionally imposed. Delays within the system often led to lengthening the time to completion. Participant AS1 found it depressing having to wait two years for a proposal to be approved, whilst another student described the system of ethics approval as being "hard, laborious and a nightmare". The general consensus was that the system was not really working as efficiently as expected. Instead of being enabling, the system itself posed a major challenge.

6.3.1.5 Overall Postgraduate Support

Students' expectations of a postgraduate degree at University X included the following: support in terms of overcoming language barriers where English was not their first language; workshops designed to guide and enhance research skills; and research communities where they could seek inspiration and mentors to guide them through their personal journeys. These often unfulfilled expectations became challenges for many of the students interviewed.

The workshops hosted by University X were seen as very beneficial, that is, if one managed to attend the session. For students holding down full-time employment it was not always possible to attend a weekday session. Saturday workshops were held for students living afar. However, if a student missed a session, sometimes there was no repeat session for that year. Students found this challenging and frustrating because they felt that full-time and part-time students were treated the same, whereas their needs differed.

The lack of an institutional student research community was a theme that came through strongly. Students felt that peer-to-peer mentors played a major role when it came to them sharing their experiences, challenges and knowledge. This was happening informally amongst friends and even across departments. However, there is a need for a more formalised structure where students across faculties could share best practice.

6.3.2   Faculty Challenges

Students from six (6) faculties across University X were interviewed. There was strong overlap between faculty- and institution-related challenges, especially with the online digital system that governs the postgraduate process. Students acknowledged the need for a system that oversees the authenticity and integrity of the degree, but felt that this same system was also a challenge in terms of their progress. Some of the students interviewed found that the delay in proposal feedback was anything between three (3) and 24 months (the latter in extreme cases). The committee reviewed submissions on a quarterly basis. Some students found that whilst awaiting the results of their proposal submission they could not continue with their research, due to their anxiety and uncertainty. Student AS3 described this as, "wait and do nothing". A student who has been in the system for a while now, FB5, found that the documents they submitted on the online system had "disappeared". These documents then had to be re-submitted, which brought "additional stress".

Student HW3 in his 5th year described the process of "getting ethics" as a nightmare. This particular student persevered due to a passion for the research, otherwise he was ready to change universities.

6.3.3   Department/Supervisor Challenges

The challenges ascribed to departments generally implied challenges associated with the supervisor. Students felt the need to know upfront what the role and responsibilities of supervisors were. It would be expected that this would have been discussed in the memorandum of understanding that is signed annually, however some students still felt that these roles were unclear. A major challenge for many students was the gap between the academic and research skills required for their undergraduate degree and those required for the master's programme. They expected supervisors to "fill" this gap; however, this did not always happen. Many

students cited the lack of face-to-face access to their supervisors and timeous feedback as well as supervisors retiring among the challenges they faced. Students showed a preference for face-to-face meetings as opposed to emailed feedback. These challenges impacted greatly on their progress, resulting in missed submission deadlines and their confidence dissolving to despair and anxiety. Student FB1 felt that if departments had proper structures in place, those who were "lost" in the system could be "pushed harder to finish up". The findings reflect the pivotal role supervisors play in the student's progress and eventual success.

6.3.4   Personal Challenges

The main personal challenge identified by most student respondents related to work-life balance. Students found that making time for research whilst working was not always easy. It required a great deal of commitment and motivation to stay on course. Certain students who held down full-time jobs stated that their study period was extended due to this. If they had focused solely on their studies, they said, they would have finished off much earlier. A female participant, FB5, had to let family and motherhood take precedence over studies. This impacted on the duration of her studies, extending it to seven years.

Another challenge was access to supervisors after 5pm, or when part-time students had finished off at work. Students felt that being able to see a supervisor during working hours meant that they could follow up on any queries or feedback face to face. "Showing up at the office", of the supervisor was a way to follow up on a lack of feedback. This was seen by students as taking the initiative to make contact with the supervisor.

The master's journey is not only an intellectual one, but a psychological journey as well. Students face many emotional issues that they sometimes have to grapple with on their own, and at other times, with the help of family or peers. Students expressed the following emotions: feeling stuck; demotivated; disheartened; isolated – having to deal with issues alone; frustration; anxiety, and feeling drained. Student EDUC3 found these challenges to be strengthening in a way, whilst others found solace in other students' similar experiences that they had heard or read about.

The financial commitments that most students have to meet is a source of great anxiety and stress for them. One of the respondents, a student who lives two hours out of the CBD, had to

secure a bank loan to fund the transport costs associated with travelling to University X. This was necessary in order to attend compulsory sessions organised by the faculty.

The challenges that were highlighted all speak to the reality of what students have to endure during a postgraduate journey. Many of these challenges influence their overall experience of the master's programme at University X. It must be noted that a strong overlap was found between the challenges and the incidents that were expressed. The next section will look at specific incidents the students narrated during their interviews. These findings will now be discussed, where a greater level of insight and depth was uncovered, by way of reflecting on these critical incidents.

6.4   Findings from CIT Interviews

Bitner, Booms, and Tetreault, (1990) in their seminal article, propose that the primary results of studies using CIT are categories and groupings that emerge from the classification process. The key feature of CIT methodology is the identifying of critical incidents or experiences that help understand a particular phenomenon – in this case, the concept, "student experience". Not every student could provide four (4) anecdotes, thus resulting in a total of 87 incidents: 40 positive and 47 negative.

Master's students' perceptions of their experience on the postgraduate programme were classified into positive (satisfying, enabling) or negative (dissatisfying, inhibiting) incidents. The CIT method allowed for students themselves to decide on the incidents/experiences that were most relevant to them (Douglas et al., 2009).

TABLE 30: Summary of Incidents

Main Categories	Participant Rate (%)	Frequency (#)
POSITIVE EXPERIENCES		
Total Number		**40**
Institution	25%	10
Faculty	12.5%	5
Department/Supervisor	32.5 %	13
Personal	30%	12
NEGATIVE EXPERIENCES		
Total Number		**47**
Institution	47%	22
Faculty	0	0
Department/Supervisor	38%	18
Personal	15%	7

Table 30 above specifies incidents for each of the four (4) key categories. Overall, negative experiences were marginally greater than the positive experiences. Department/Supervisor categories indicated a 5% variance between the number of positive and negative experiences. There exists a significant disparity between positive and negative incidents in the category of institution, with almost half of the dissatisfaction resting on the shoulders of the institution.

These four (4) categories were further interrogated, resulting in sub-categories of incidents that allowed for a more nuanced perspective of students' overall experiences. This made it possible to ascertain where the critical areas [significant touchpoints] were that enabled or inhibited postgraduate progress and influenced their overall experience. Table 31 presents the sub-categories for each main category.

TABLE 31: Summary of Critical Incidents with Sub-Categories

Main Categories	Positive Incidents		Negative Incidents	
	Sub-categories	No of Incidents	Subcategories	No of incidents
Institution	Acceptance into Programme	3	Funding Support	6
	Funding Support	3	Online Digital Process	5
	Servicescapes/Infrastructure	4	Infrastructure Provision	3
			Registration Process	5
			Data Analysis support	3
Faculty	Research platforms	5	0	0
Supervisor	Supervisor–Student Relationship	13	Supervisor Power	5
			Roles and Responsibilities	6
			Communication/Feedback	7
Personal	Personal development	5	Work-life balance	2
	Impact of Research project	3	Research skills set	2
	Peer Support	4	Student Isolation	3
Total		40		47

What was most evident from the above breakdown is the virtually equitable distribution of incidents between the institution and the research supervisor. Student experience was predominantly situated within these two (2) main categories. Both these categories were also internal to University X, thus within the institution's control. The personal experiences/incidents were subject to the individual's locus of control.

These student experience findings will now be discussed in greater detail under each main category.

6.4.1 Institution

Students generally perceived the institution, University X, as being ultimately responsible for driving the master's research journey, the processes involved, and the support structures

provided. The following anecdote from a student, FID2, expresses their negative experience with the institution in general: "Some students have decided to just quit everything; cut all ties that have to do with this institution as far as doing their postgrad. They are just taking it elsewhere, the system is just made to make everyone just fail, the overall programme – yes".

A more positive counter-experience relates to the elation of student EB1 at being accepted at University X: "… to be a part – to be here as a student, as a master's student – was like… the moment I got accepted and I got a supervisor, I was happy, because it's not easy to be accepted at a good university". This sentiment was echoed by student EDUC1: "I was happy. I was rejoicing because as I've said earlier on, not everyone makes it. Not everyone is accepted, you know. And it's very limited with our institution because our institution is still growing". The use of the word "our" indicated the sense of pride that was associated with University X.

6.4.1.1 Funding Support

A critical area that all students experienced and found challenging was funding support. This was aptly expressed by student EB2: "Like there's a lot of frustration when it comes to funding." This factor alone can cause tremendous strain on a student's overall experience. Positive experiences were linked to fee payment arrangements, the awarding of bursaries and competitive fee structures. As student EB3 stated:

"…fees are not that expensive – that's a positive one. I'm not experiencing registration issues because you know what I do if I owe anything? – I make arrangement before the registration period. So when January/February comes, everybody's flocking there, I'm already sorted. I've got my arrangement in place."

Starting off the year on a positive financial footing impacted on a student's experience, as related by respondent FID1: "I felt very positive. Almost like there's a light at the end of the tunnel through all the things that I've been going through". Payment of fees for conference attendance, was a major boost for student's confidence. This platform allowed students to engage with others on their topic of interest and receive valued feedback. This sentiment was expressed by respondent EDUC3 who felt the following: "I felt confident about it, gave me some kind of voice for my research."

6.4.1.2 Registration

The key incidents related to registration were administrative issues. This process of registration was viewed mainly from a negative perspective, nothing positive was reported. The main emotion related to these incidents was "frustration". Students experienced frustration with slow, inefficient administrative processes where they felt there was no recourse. Respondent EB3 expressed this sentiment:

"When you apply normally, the institution will tell you 'we've received your application' – especially on postgrad – and then they will wait for you to have a supervisor. Then the supervisor will communicate to the department because each department within the faculty has a head of the postgrad. So that person will liaise with the supervisors to get the names of the people that are accepted. And then he will take that to the faculty and the faculty to the postgrad office and then you get the message. I had to make 100 and 100 of phone calls to get this sorted. I think there is something going wrong. Either someone somewhere doesn't do what they're supposed to do or whatever the case may be… very frustrating, because you're not going get admitted. You get provisional acceptance and then it's going stay there."

This incident points to the long-winded process that is involved for each application. This is very much a paper-based trail, so things can go astray. Respondent FB3 cited an incident where she found that her application was "lost". Even though it's an online process of registration, the applicant's forms are still paper-based when sent through to faculties, departments and then on to prospective supervisors. Student EDUC1 expressed that students were responsible for following up on their applications with University X: "You know, that was very frustrating. what you can do face-to-face you can't do sometimes over email; you can't express yourself. You have to follow up the process, right down to head-hunting your own supervisor".

An important tangible product of a successful registration is a student card for that year of study. Student EDUC3, a mature student who lives outside of Cape town, was left feeling very upset and angry, only managing to sort out a student card after a third attempt. What was important to note was that the anger and frustration was due to the lack of communication from the institution. "There was no communication as to they are having problems with the system, you see. If there was communication from the university's side, I would have understood".

6.4.1.3 Infrastructure Provision/Servicescape

The incidents cited under this subheading spoke mainly to what students perceived as infrastructure support. Positive incidents were related to well-stocked libraries and access to certain labs at any time of day or night. The negative experiences included discontent about the facilities provided at different residences, a lack of designated postgraduate workspaces and slow wi-fi networks. Respondent EDUC2, a mature student, said that he was not even aware of where research labs existed for students: "... I don't know where to use the research labs, like, for master's students. I'm still finding myself mixing with undergraduates".

6.4.1.4 Online digital System

Significantly, there was not a single positive incident narrated about the online digital system implemented on the master's programme to sign off significant milestones on the master's journey. The negative incidents cited related to the inefficiencies of the system that resulted in emotions such as worry, disappointment and frustration. The most significant issue that came up were the delays caused by the system. Students perceived these delays as a result of the system not being timeously updated, or being held back because a further document was required. It was also a source of great stress that feedback after submission was very slow, which resulted in significant delays for students. Student FB4 sums it up in the following way:

"The communication between the system, the department and the supervisor is not flawless. Sometimes you can hand your work to the supervisor – it doesn't get to the department on time. It doesn't get reviewed and passed on to the system on time. So if maybe the communication can be improved such that when a student submits the work to the supervisor on time it can be delivered to the department and the system on time…. I'm almost done with my thesis. I'm basically compiling everything, but my proposal is not yet on the system."

This incident was indicative of the synergy that is necessary between each role player along the master's journey. This incident left this student (FB4) feeling as follows:

"I was literally discouraged to do my PhD at University X. I thought that, somewhere somehow, the institution is disorganised in a way."
"The system that the university uses, if not managed properly, it delays students. I felt very prejudiced, like I said. I'm going to be forced to pay my money for nothing. Yet I'm not going

be studying. Not only prejudiced in terms of like paying money when you're supposed to pay it, but in terms of opportunities. Opportunities comes once in a lifetime. So that delay, it means if we were to get a job as a lecturer or… – I had a lot of opportunities that were waiting for me in 2018, but I couldn't. I really wanted to do my PhD in 2018 but I couldn't do it because I had not completed my master's officially".

The above quote signifies the opportunity cost; the opportunities that are perceived as lost due to system delays. The student was vociferous in expressing his feeling of being "prejudiced". It is clear that these perceived or real delays have far greater impact than just a delay in graduation. The student's perception of the delay situates the ultimate responsibility on the institution that implemented such a system.

6.4.2   Faculty Research platforms

The incidents cited were linked to positive experiences, where students were able to share their research within support groups and seminars, or at workshops arranged by the faculty. Only two (2) faculties were mentioned in terms of this support. Students responses to these support structures were as follows: "it put me at ease, I know where I need to go; It feels like they care, willing to assist; boosts my levels of confidence and progress". One faculty in particular had a support group co-ordinator who was seen as a liaison officer between students and supervisors. Students found great comfort, support and confidence with this co-ordinator, who was always willing to assist with any issues. They felt that this co-ordinator would "always find a way", to resolve any issue. Workshops and seminars were perceived as great opportunities to develop presentation skills, sharing one's research and receiving feedback within a safe environment. EDUC3 captured this sentiment well; "We have the freedom to express ourselves, have your voice heard, without being too criticised".

6.4.3   Supervisor – Student Relationships

Students cited 13 positive incidents and 18 negative incidents related to their experiences with supervisors. The positive incidents were related to supervisor support in terms of developing research skills, creating research communities amongst their students, being empathetic about the personal issues students were experiencing which were impacting on their studies, and the feedback mechanisms that were in place. The students' resultant emotions ranged from being

really happy to feeling really special and proud. Every positive experience impacted positively on students' overall levels of confidence, and enhanced their levels of progress. What came through, though, was that students felt that they had to please their supervisor in order to maintain a good relationship. This was expressed by EB5 as follows: "I don't want to disappoint my supervisor", "I know what he wants", and "He is strict, but supportive".

What was also evident was that supervisor feedback had the potential to uplift or inhibit progress; it all depended on how students viewed it. Student HW1 said that her supervisor had encouraged her not to take feedback personally, to see it as "not criticizing me, but criticizing the work". Where students perceived feedback to be kind, supportive and encouraging, it helped build greater confidence and fuel progress. Student EB4 found that becoming very confident was a skill that he was able to be transfer to other areas of his life. Respondent EDUC4 summed up the supervisor–student relationship: "…students need to take ownership, because you can't leave everything up to the academics".

Students perceived supervisors to embrace roles beyond the parameters of research.
"They are also like counsellors. When they look at you, you are facing challenges or you are down… They can actually pick up if you upset".
This suggests that supervisors are expected to play a more holistic role in the lives of their students. The master's journey is not just an academic, but a psychological journey as well. Respondent EB5 aptly captures this point: "My role model – he's the best supervisor ever".

However, whilst certain supervisors impacted positively on their students' lives, others were found to inhibit progress. This will now be discussed.

The 18 negative incidents were focused on three (3) key areas: supervisor power, roles and responsibilities, and feedback. What was common to all the negative experiences was the impact it had on the emotional state of the student and their progress. The emotions expressed here were sadness, anger, frustration, disappointment, prejudiced against, confused, and irritated. This negative psychological state in turn affected student motivation, their levels of confidence and ultimately, the progress they made.

The term "supervisor power", summarises students' experience in terms of the ambit of influence a supervisor has. Respondents EB3 and EDUC1 said they were made to "find" their own supervisor in their field. This entailed head-hunting a potential supervisor and asking them to take you on as master's student. Students used this approach when they had not received timeous feedback from the faculty or institution, so they then took it upon themselves to follow up. Supervisors have the power to accept or reject students. As expressed by EB3, "The supervisor is the boss". An international student was turned down because English was not his first language. The supervisor saw this as a challenge to deal with and hence rejected the role of supervisor. Another student who was in full time employment cited an incident where she arrived late for a meeting because of circumstances that were beyond her control. The supervisor was extremely displeased, seeing it as a sign of disrespect even though the student had offered an apology. The student was very upset by the end of the meeting and felt like giving up on the programme. These incidents stand testimony to the tremendous power that supervisors have over their students.

Supervisors, like students, are expected to fulfil their roles and responsibilities when choosing to be part of the master's programme. Students for their part, expect supervisors to have the necessary skills and expertise to supervise. Supervisors who lacked the skills were seen to inhibit progress, "actually lengthening the process of [the] master's programme"; "… progress was stifled"; and "… could have been done so much earlier".

Students found that not every academic has the ability to supervise, despite their level of qualification. It was also expressed by students that certain supervisors were part of the programme but were unwilling to accept their responsibilities. Student EDUC 4 found it to be a very confusing process when she was asked to present at a seminar and she felt totally lost. Her main supervisor was based abroad, so she had to rely on the co-supervisor who was based on campus. She battled with her co-supervisor: **"**It kind of made me feel like I was a nuisance. So – I'm not sure if it's just a lack of support, or [if] it's the lack of the knowledge of how to supervise". The student found that it did hamper her confidence because, "now I was kind of left on my own and having to figure things out for myself. I had to take ownership".

Supervisor feedback was another area where students cited dissatisfaction. The main discontent was around timeous feedback from supervisors, and the tone supervisors used when providing

feedback. Delays in feedback were perceived as leading to a loss in momentum, plus "hurting" the pocket. Feedback given at the last minute resulted in the student experiencing great stress in order to meet submission deadlines and, in some cases, missing the deadline completely. According to student FB2, he ended up missing the final submission deadline by three (3) days due to the delay in supervisor feedback. This resulted in him having to enrol for another year in order for his thesis to be examined.

Delays in feedback ranged from one to six months. The anxiety that students experienced while awaiting this feedback impacted their motivation to progress. Various students described this as a "stressful…", "often irritating…", "took all my breathe out…" experience. Student AS1 experienced a change in supervisors, which resulted also in a change in feedback style. The initial supervisor was super-efficient with feedback, which was provided overnight, resulting in what the student describes as a "synergy". This "synergy" was useful in keeping the student motivated and focused on his research.

The manner in which feedback was relayed also impacts the student experience. Some students viewed feedback as a personal criticism, whilst others were able to hold a more objective view. Student EB4 described her experience as a "sword that had pierced my heart. There could be a way of bringing positive correction without breaking the confidence of the students". This student perceived feedback to be very harsh. Student EB4's sentiment was shared by student EB2, who found that the "hurt" could only be shared with peers, not with the supervisor. These delays made some students question who in fact was driving the master's journey; the answer was "It is I".

6.4.4   Personal

Student experiences can also be attributed to the numerous personal issues that they have to deal with. Each year of study presented a new set of personal experiences that students had to deal with. There were a greater number of positive personal experiences with the master's programme found in this study than negative ones. The three (3) key areas cited by students were experiences around personal development, support structures and finding the balance.

Upon reflection, students were actually surprised by their personal growth experience during the master's journey. For many it was about self-discovery; their ability to adapt, to embrace

new challenges; the achievement of goals, and a sense of accomplishment. What was worth noting was that the students did not attribute their personal growth and development to the institution, nor even their supervisors. The use of the word "I" was indicative of this. Respondent FB2 and HW3 shared a similar viewpoint with regard to what was generally expressed: "I obviously was not hinged on being positive because of the system or because of the institution. I mean, it was actually premised on the fact that I knew what I wanted to do, and I knew that I was capable of doing what I wanted to do. I was self-motivated to succeed". Respondent HW4 found that learning to project-manage was a personal outcome that led to acquiring skills such as patience and networking, interacting easily with other people, the application of knowledge, and quantitative data analysis. This shows that students were being pushed to new limits.

Not all personal growth experiences were positive, as expressed by respondent FID1: "I think I had to process exactly what my research was going to be about. Because it was going to be easier when I speak to my supervisor. It's like it's ever-changing and it's building and you're taking away and you're adding". This points to the fact that the student acknowledges that the master's journey it is not a linear process, but rather that is requires a more iterative approach. The positive side of this student experience was that knowing what you want to do is already a great step towards success.

Three (3) senior students' positive experiences were linked to the impact of their research output. This led to great sense of achievement and satisfaction that they had made contributions through their research to solve problems practically. Respondent FB5 narrates: "There was this constant inner voice that said to me, 'you started this, you need to finish it. You owe it to yourself for your own career development, but also you owe it to the people whom you've started these conversations seven years ago'." This suggests that students felt a sense of responsibility to their study participants, to letting the voices of their study participants being heard through their research outputs.

Peer support was viewed as being invaluable in dealing with challenges that were faced. Student FB3 found that support from peers, not from the academic institution, was very useful, especially at the proposal stage of the master's journey. This peer support helped boost confidence and in turn boosted progress. Positive experiences were also linked to master's

students themselves offering support to students in under-graduate programs. These interactions with undergraduates led to greater confidence in their own abilities.

For many students, finding the balance was not an easy feat. Juggling work, family and master's studies was not easy. This was succinctly expressed by student FB5: "It is a lonely journey and it's a journey that you need to constantly work hard from day one. I would have been finished a long time ago if I just worked hard from day one. So there would be points in the journey that I would work hard and then stop for two months, and then work, and stop for two months. When you don't have a family and kids and work it would definitely be easier". This quote highlights the need for consistency in study, and finding the balance. The negative emotions of loneliness and despair were experienced by many students. Those who lived away from home and their families found that it exacerbated their situation because they felt that they lacked a support system. Progress and confidence were both affected when students felt down and out. This points to the strong emotional aspect of the master's journey that cannot be neglected.

6.4.5   Key Highlights of CIT Findings

The critical incidents that students identified through their reflections summarizes the key touchpoints (service encounters) that are important for students on the master's journey. Analysis of the data revealed three core categories:

(a) Student experience with Institutional performance
(b) student experience with their research supervisor and
(c) Students' own personal experience whilst on the master's programme

These touchpoints were either viewed as inhibitors (dissatisfiers) or enablers (satisfiers) of the overall program. These critical areas can influence intentions related to loyalty, retention, brand reputation, sustainability and ultimately, competitive advantage. Figure 18 below presents the main touchpoints. They are all underpinned by two crucial service quality determinants: communication and responsiveness.
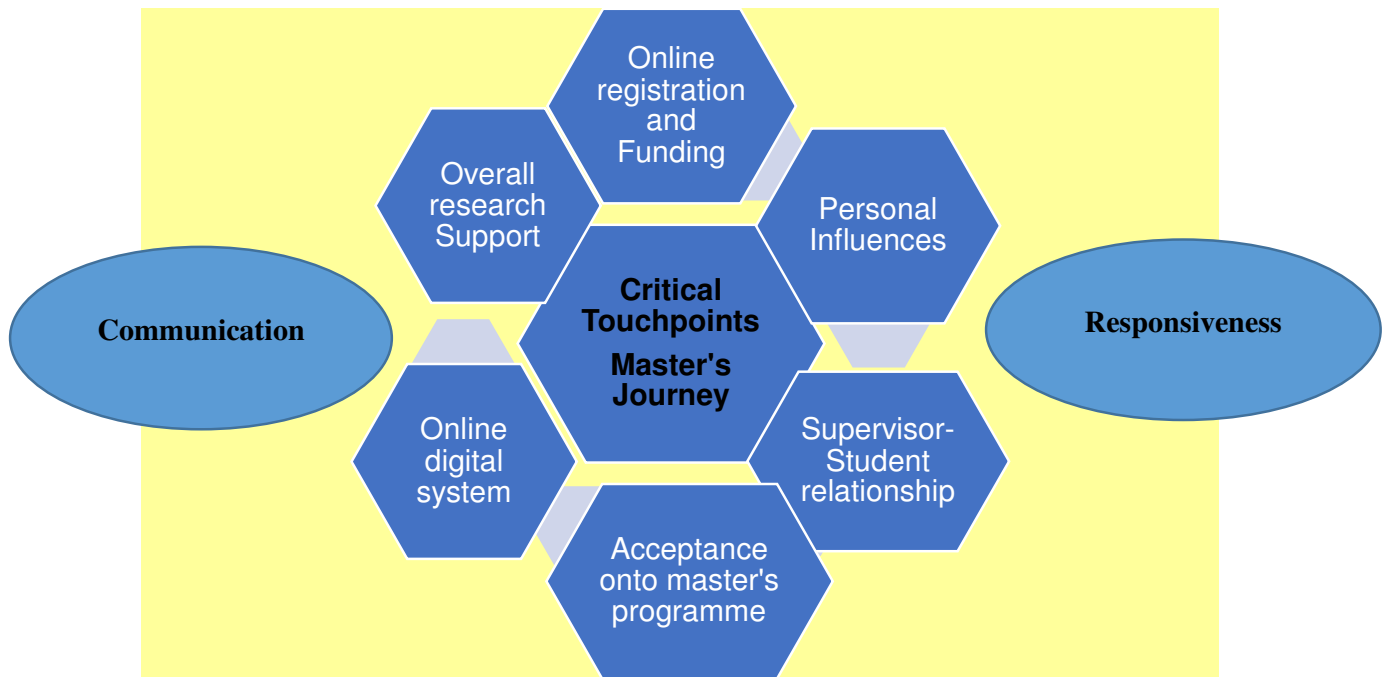
FIGURE 18: Main Critical Touchpoints: Master's Program

(Source: Derived from this study)

Each critical incident impacts on the master's student's overall impression, experience and evaluation of the programme. Thus, it is ultimately the student, (the customer), who is the most suitable judge of the service quality (Douglas et al., 2008). Given this understanding, it was only fit to probe students on how the programme delivery could be improved or enhanced to appeal to the heterogeneous master's student's cohort.

6.5   Wishlist Items

Wishlist items can include people, information and support (Butterfield et al., 2009) that were absent during the student's experience. Students believed that if these factors had been present, their overall experience would have been significantly different in a positive way.

The wishlist items were primarily situated within the ambit of the institution (University X) and the supervisor. This corroborates the findings of the critical incidents which were associated, predominantly, with the institution and the supervisor. The findings suggest a call for the institution to take a more participatory approach in the development of the master's programme. This would require student feedback and input throughout the master's journey.

This can be achieved via co-creation initiatives, where the voices of students, supervisors and other stakeholders are heard. The table below captures the main Wishlist items that students expressed.

TABLE 32: Summary of Wishlist Items

Responsibility	Areas of Improvement	Credence Quotes
Institution	Co -creation opportunities	Your contribution is what makes University X good. You don't feel like you are co-creating at the institution.
	Funding	Great capacity in postgraduate output. Before you start to engage, all the resources must be available.
		Sacrificing not to go into the job market and to study further; funding support for living and research expenses.
		Industry partnerships – encourage students to research issues that would get financial support from the industry.
	Designated Postgraduate Workspaces	To work uninterrupted: one or two people per office, or some kind of barrier in between so that you can sit anytime - day or night - and have a safe area to just work – and where resources work! Internet, clean bathroom and kitchen…
		24-Hour library access
		A conducive environment for learning to take place. (End up finishing faster when you have that kind of environment)
		Checking the communication: the flow of communication between the supervisor, the department and the online digital system
	User-friendly online digital system	
		Better resourced labs
	Responsibility/Accountability	Equipment like recorders and laptops. The faculty, departments, even the university, - don't have a designated place you can go to, to borrow a laptop if you are a postgraduate
	Equipment support	student.

	Psychological support	You just want someone to go and talk to about some challenges you are having because of the programme. More outreach to the students on the journey. It's a very lonely journey and sometimes you feel that you – *[you accept that]* it is your journey - but you feel that you are in it alone. You and your supervisor. You feel almost far removed from the institution. The institution and the department itself should be more involved in the journey of the master's student. "Communication is vital"; this is where it's lacking, from the institution. There's no communication as to how far the process is.
	Institutional Feedback	Streamline and get it smooth, this whole process of having to apply online.
	Online registration	Centre for postgraduate students, they could definitely work on the admin aspect. A master's programme - to a great degree - is also how well you run the administrative part of it to make sure that you can move forward as well.
	Role of Post Graduate Centre	
Institution, Faculty, Department and Supervisor	Student Retention	Go to other institutions for PhD - review that and find ways to retain their own students.
	Support through Entire journey	I didn't get that support on the whole process of my master's; I was just kind of left on my own to figure things out. Support structure is not there to guide us through the process.
Institution, Faculty, Department and Supervisor	Opportunity to Rate the Supervisor	A way to rate the supervisor. *[Supervisors must]* be rated *[and must]* try to improve, know where their shortcomings are. Look around and speak to the students, collect data from student anonymously.
	Supervisor Commitment and skills	They need to commit themselves and they need to be sure that they know how to supervise.
	Supervisor relationships	Allocated a supervisor you have to stick it out with that supervisor. You should just make it work, no choice in the matter. Would like the option to change supervisors where a better relationship exists.

	Increase Supervisors	Not sufficient supervisors in departments, that's why it delays students.
	Supervisor workloads	External supervisors to help alleviate the backlog.
		Supervisors maybe that are always on campus, that are always available, that are not so busy.
Faculty	Colloquiums-Alumni Feedback	Former students, share their experience - positive or negative. Most of these journeys are more about one's mental stamina.
Faculty and Department	Support via research communities	There would have been support if there was a community for master's students, which doesn't exist.
		Allow for post graduate students to engage frequently. Because it's a very lonely journey.
		If the support structure existed within the department or the faculty you will set a pace for students to be working, and then the supervisors just support you here and there.
	Developmental workshops	A bit more coaching and a little bit more guidance. Academics don't want to be bothered with students who are battling with writing.
		All supervisor's students could sit in every one month – or at least every three months – to discuss certain areas, especially during the first year; e.g. key concepts in conceptual framework.
Faculty, Department, Supervisors	Proper Postgraduate Orientation Roadmap/Programme Guide	Right now, gap between what you want and what they're giving. At no point are you given an orientation to the master's programme and saying "okay this is what is required of you. This is how you go about doing this. This is how a proposal is done".
		Look at student's expectations. Check, before they're put onto the programme. *[They must]* inform you on what would be expected of you.
		Come for the first time, you need to know - I need to do all these things'. Almost like a checklist, a roadmap.
		How to use the online digital system

Communication/ feedback Supervisor	Supervisor Timeous Feedback	Slow turnaround time in terms of response from the supervisors. We are also working people. Supervisors, they don't give feedback on time.

(Source: Derived from the study)

The wishlist items indicated students' perceptions of areas that could be improved to enhance the overall customer experience. The findings suggest that an integrated, holistic approach, with input from all the major stakeholders, would be useful in enhancing the overall customer experience. Students expressed a willingness to contribute their thoughts, suggestions and feedback on the programme and the processes involved, however, this opportunity is not currently formalised. There exists a dire need for a programme blueprint or roadmap that clearly details every aspect of this journey. The wishlist items further suggest that postgraduate alumni have a valuable and positive role to play in sharing their journeys with prospective students. The value attributed to designated postgraduate working spaces and the establishment of supportive research communities comes through strongly.

The supervisor–student relationship is a dynamic one. Students are aware of the tremendous pressures supervisors are burdened with. These include a heavy supervision load; normal day-to-day duties and responsibilities; meeting their own research output targets, all whilst balancing it all with family responsibilities. Hence, additional support structures are seen as relieving the supervisor from taking on the sole responsibility.

Feedback and communication are yet again identified as the cornerstone of students' expectations. These service quality determinants were prominent in the challenges and the critical incidents that were mentioned. These quality determinants that influence customer satisfaction levels cannot be delegated to the supervisor alone. The responsibility rests on the entire institution to promote and practice a MO.

The following section addresses the integration of the qualitative and quantitative data sets.

6.6   Integration of Data Sets

The following mixed methods question was answered by integrating the quantitative and qualitative datasets.

Mixed methods question: What is the relationship between Customer Experience (CX) and Market Orientation (MO)?

A joint display table was created (Table 33) to merge the two datasets. This juxtaposition of the qualitative findings and the quantitative results provides an opportunity to see if the databases converge, complement, conflict or diverge (Creswell, 2015). Meta-inferences can be drawn (Guetterman et al., 2015), providing additional insights into the relationship between CX and MO.

TABLE 33: Joint Display of Qualitative Findings and Quantitative Results

QUANTITATIVE: Supervisor Results Market Orientation factors		QUALITATIVE Student Findings Critical Incidents-Positive/Negative
1.Supervisor Response 86,4 % agreed 7.5% neutral 6.1% disagreed		
2. Alumni Feedback 47,1 % disagreed 23,2% neutral 29,7% agreed		**Funding Support** **Registration** **Online Digital System** **Infrastructure Provision/ Servicescapes** **Supervisor-Student Relationship**
3. Information Dissemination 49% agreed 21% neutral 30% disagreed		
4. Encouraging Student Feedback 71,5% agreed 15,5% neutral 13% disagreed		
5. Programme Relevance 61,6 agreed 17,4 neutral 21% disagreed		**Faculty Research Platforms**
6. Industry Interaction 48,4% agreed 12,9% neutral 23,8% disagreed		**Supervisor-Student Relationships**
7. Measuring Student Satisfaction 47,2% agree 18,4% neutral 34.4% disagree		
8. Social Media Usage 46,1 agreed 11,8 neutral 42,1 disagreed		

(Source: Derived from the Study)

Table 33 presents the linkages between the quantitative results and the qualitative findings. In the quantitative study, eight (8) factors emerged from the Exploratory Factor Analysis that

described the level of MO of individual supervisors. The qualitative findings presented the student experience, and critical touchpoints were identified. These touchpoints were either viewed as either enablers or inhibitors. The joint table provides greater insight into how supervisor behaviour influenced the master's students' experience at University X. Three (3) key joint findings emerged from the joint analysis. Each of these findings are explained in greater detail below.

Market Orientation factor

Alumni feedback - Factor 2

Encouraging Student Feedback - Factor 4

Student Experience

Funding Support
Infrastructure provision
Registration Process
Online Digital System
Supervisor-Student Relationship
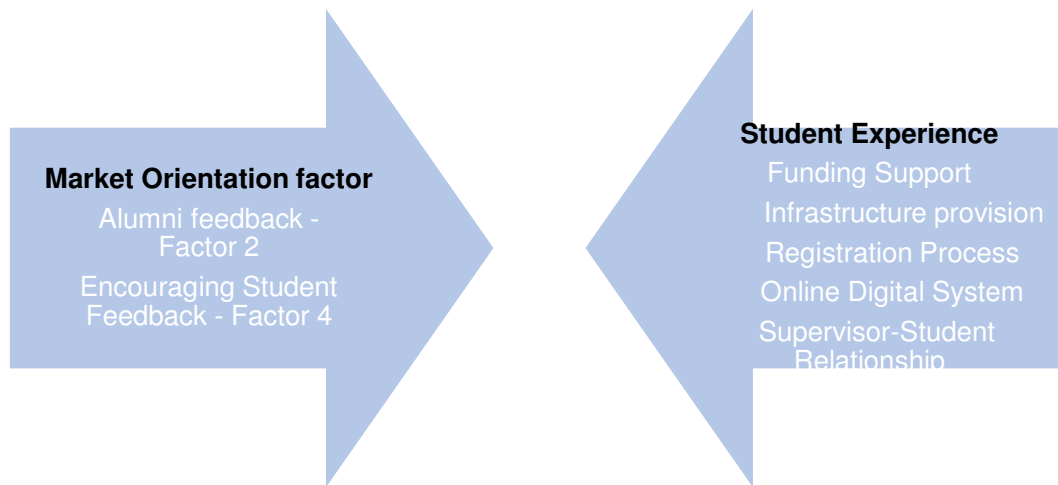
FIGURE 19: Joint findings 1 - MO factors: Alumni feedback and Encouraging Student Feedback

MO Factor 2 and 4 were related to market intelligence generation or information acquisition. Only one-third of supervisors agreed that they had contact with alumni students to solicit their feedback on their overall experience of the programme. This suggested that there is no alumni evaluation protocol in place by the institution that allows new graduates to share their overall experience of the master's programme. It thus could be inferred that once students graduate, their connection with the University and the supervisor terminates. This raises the question, is it solely the supervisor's responsibility to solicit alumni feedback? Does this indicate that supervisors are responsible for every aspect of their student's journey?

Around 71.5% of the supervisors responded positively to MO Factor 4, which relates to encouraging student feedback. This implies that supervisors encouraged students to share their experiences and communicate their thoughts both on how to improve the programme and how best to meet the diverse student needs. It is further assumed that this feedback was expected to

161

be communicated at the student-supervisor meetings, given the absence of a formal feedback mechanism.

Students identified the registration process, issues of funding, infrastructure provision and the online digital system which manages the administrative process on the master's programme, in a negative light. The student–supervisor relationship questions also evinced a greater number of negative experiences than positive ones. These critical touchpoints were seen as dissatisfiers by students, inhibiting progress. Future, present and alumni students all hold a wealth of information that can be shared with the institution. This information can be used to review these critical areas and the processes that govern them.

The institution also loses the opportunity to retain or encourage students to choose University X for future postgraduate studies. Many students choose to pursue their PhD studies at other universities. The combined findings thus support one another. Students' negative experiences with institutional-related touchpoints, a student- supervisor relationship that lacked a formal feedback instrument, and the lack of capturing alumni feedback all speak to a system that is not geared towards being market-oriented.
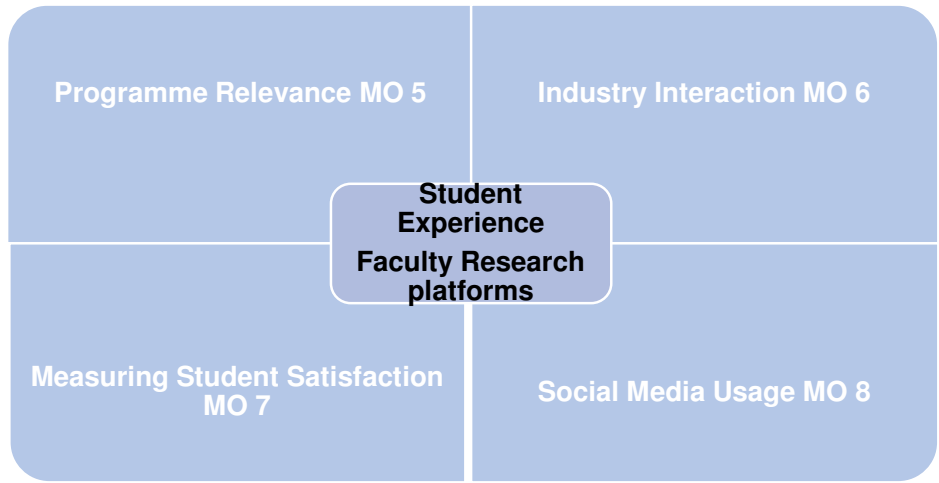
FIGURE 20: Joint Finding - MO Factors 5,6,7 and 8

Only two (2) faculties were identified as offering support to students through research co-ordinators who facilitated weekly or monthly meetings with master's students. The value in these sessions were recounted as being safe spaces to share their work and to let their voices

be heard. Supervisors were not always present at these sessions, due to their heavy schedules. Faculty research platforms presented great opportunities for those involved in the master's programme to share their best practices; instead, supervisors are seen as operating in silo's. These platforms also provided great opportunities to generate feedback in terms of the challenges that students faced, both academically and personally. Technology in terms of social media usage was not fully embraced by all supervisors. Here, social media refers to online platforms that allow users to communicate with one another virtually. Only 46% of supervisors acknowledged the use of social media to maintain contact with current and future students.

MO factors 6 and 8 are linked to information acquisition, whilst factors 5 and 7 are linked to co-ordination of strategic response. Looking at MO factors 6 and 8, what is of significance is that just under 50% of supervisors have "actioned" social media usage and interactions with industry to generate information. MO factor 5 indicates that just under two-thirds of supervisors engage with colleagues and students on issues of programme relevance, whilst factor 7 indicates that less than half of the supervisor's measure student satisfaction. Both these factors point to an average co-ordinated response by supervisors.

This suggests that that these MO factors are moderately implemented by supervisors on the program. It also indicates a possible disconnect between the supervisor and the research sharing platforms hosted by the faculty, if these exist at all. These platforms can be useful for gleaning valuable information from students and to test possible strategic responses that could be implemented. It can therefore be deduced that these results diverge to some degree.
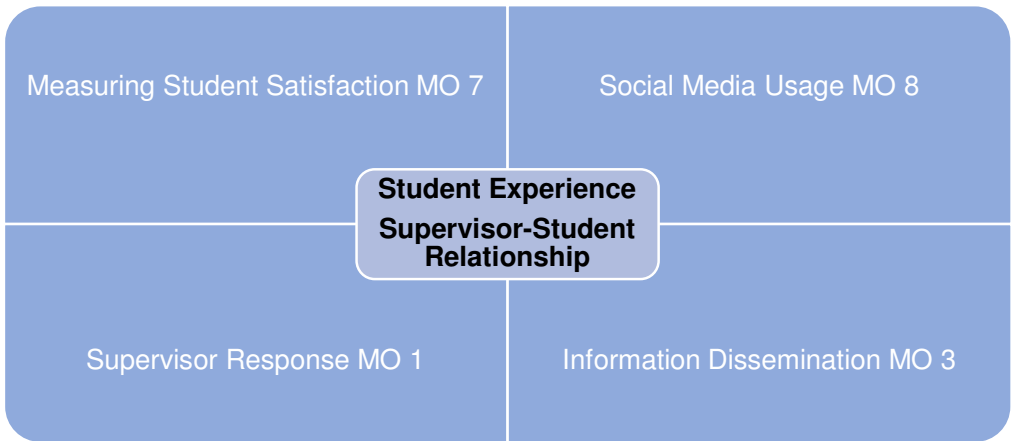
FIGURE 21: Joint Finding 3 - MO Factor 1,3,7 and 8

163

The student-supervisor relationship is one that is fraught with numerous challenges. These challenges co-exist within a system, process and programme that sometimes either inhibits or enables progress for both students and supervisors.

MO factor 8 is related to generating market information, factor 3 relates to information dissemination and factor 1 and 7 are the supervisor's co-ordination of strategic response. These factors together encapsulate supervisors' collating of information, sharing this information and finally responding in an appropriate manner that brings about solutions for students.

Supervisors were in agreement (86,4 %) that they responded to student's diverse needs, offering potential solutions. Other areas, where just under 50% of supervisors responded positively, were related to MO factors 3, 7 and 8. The contradiction presents itself when it is shown that students experienced far greater negative (18 incidents) than positive experiences (13 incidents). Student evaluations were conducted at the discretion of the supervisor, since no formal evaluation process was in place. Inexperienced supervisors themselves were unsure of the channels available to provide feedback and share information, etc. Thus, the joint analysis suggests that seasoned supervisors were probably more au fait with "how" things worked.

Nearly 54% of supervisors agreed that they did not use social media to communicate with current and potential students. Communication, which underpins the student-supervisor relationship, is not being practiced optimally as expected by students. Thus, these joint findings do not align with each other since students cited feedback and supervisor response as their main negative experiences. Thus, it can be inferred that much is still needed to strengthen the MO actions of supervisors and other role players within University X.

To summarise the findings of Joint Display Table 33:

- **Joint finding 1:** The combined findings support one another. Students' negative experiences with institution-related touchpoints, the lack of a formal feedback mechanism for students and the lack of capturing alumni feedback all confirm that the current system is not geared towards being market-oriented.
- **Joint finding 2:** The results diverged to some degree, as there is a possible disconnect between the supervisor and the research sharing platforms. Furthermore, only two (2)

faculties hosted support to students through research co-ordinators who facilitated weekly or monthly meetings with masters' students.

- **Joint finding 3**: Results did not align with each other. Communication, something that underpins the student-supervisor relationship, is not being practiced optimally as expected by students, thus impacting on MO being practised optimally.

6.7   Joint Analysis of Supervisor and Student Challenges

Table 34 is the Joint Display of tabulated findings of the perceived challenges experienced by both students and supervisors alike.

TABLE 34: Challenges Across the Four Stakeholders

THE CHALLENGE	INSTITUTION	FACULTY	SUPERVISOR	PERSONAL/Student
Funding related to Master's Programme	Students felt that the institution is responsible for subsidising registration, tuition fees, subsistence, operational costs… General student sentiment was that University X was not doing enough to support postgraduate students financially.	Resources constraints in research labs Departmental budget constraints	Access for Funding for well-resourced Labs to cover research costs are not easily accessible Seek Grant Funding, Wheels turn slowly once projects are registered.	Lack of funding in terms of tuition fees, research costs, personal expenses while studying. Forced to take up part-time employment to support themselves while studying
Academic Transition			Supervisors perceived challenges in terms of a lack of Student-Preparedness for the master's programme. Added to that is are students' expectations, which rests the responsibility on the supervisor to fill. Lack of academic literacy expected of postgraduate research. Students were not properly prepared during undergraduate studies for the postgraduate research process.	huge challenge was the gap in skills between their degree and the master's program. It was expected that supervisors would "fill" this gap.
Online Digital System	Supervisors and students felt that the Online Digital System that administers the master's programme is set up by the institution – a centralised system that is perceived as bureaucratic not user-friendly.	Strong overlap between faculty and institution-related challenges, especially with the online digital system that governs the postgraduate process.	Online administrative process, and particularly compliance, was a challenge they faced.	General consensus was that the system was not really working as efficiently as expected. Instead of being enabling, the system posed a major challenge. Students acknowledged the need for a system that oversees the authenticity and integrity of the degree, however, this same system was also viewed as a challenge in terms of progress.
Overall Post Graduate Support		Students expressed that there was no proper Postgraduate Community/Peer Support at faculty level.	Supervisors, especially those who were new to the job, also felt unsupported. Students felt that the entire support system rests on supervisors alone.	Students experienced these challenges on the programme: Research skills gap, language barriers for international students. Workshops that did not take into account students who were employed etc. Student expectations, which were not fully met.
work-life balance			Workloads often over-burdened supervisors.	The main personal challenge identified by most students

			This impacted on their work-life balance.	interviewed was related to work-life balance. Especially part-time students who battled with time management.
Infrastructure	Institutional challenge: under-resourced labs, under-resourced library services available on smaller campus sites, and the lack of designated work-spaces for postgraduate students			
Expectations of the Supervisor			Supervisory work for the master's programme was not considered in their workload allocation, nor are they financially incentivised to take on this additional responsibility.	Supervisor workloads impacts on their time and availability. It also impacts on feedback, causing delays in feedback.
Communication Channels	Disconnect between the online system and the application office: The feedback mechanism was seen as "poor". This in turn made it a back-and-forth process for the student, who needed to do the follow up.		Students who worked expected supervisors to avail themselves after hours and on weekends.	Sometimes, no face-to-face contact with supervisor at all. Communication via email.

(Source: Derived from the study)

This Joint Display reflects a composite view of the perceived challenges experienced by students and supervisors. These shared experiences highlight the predicament of both students and supervisors at University X.

The challenges experienced at an institutional level included funding support and the negative experiences associated with the online digital system that supports the master's programme. Students' challenges included certain expectations of supervisors that were not met. This gap in expectations set students up for a false sense of what the master's programme actually entailed. This was exacerbated by the challenge of not being properly equipped to deal with the academic transition from their degree programme onto the master's programme. Students' expected the same hand-holding, however the master's programme required a greater autonomy and independent focus.

Students' personal challenges related to the notion of work-life balance, time management and a lack of academic preparedness. Supervisors bore the fallout of the students' challenges in terms of having to deal with unacceptable levels of academic writing, and in some cases, the general level of apathy students exhibited towards their studies. A possible explanation for students' expectations not having been met are the heavy workloads supervisors were straining

under. This suggests that supervisors were over-burdened, thus not being able to fully support each student as was expected of them.

These challenges are nested within a greater challenge that relates to a lack of communication and information sharing. If both parties shared similar perceived challenges, then the triad of students, supervisors and the institution can benefit from a more participatory, consultative, co-creating environment.

6.8   Conclusion

This data was collected to gain insights into master's students' experiences; the emotions that were involved; the impact of the experience on their progress; and finally, the Wishlist items that were suggested by them.

A snapshot survey reflected the 'students' overall experience at University X as being good. These results suggest a general level of positive experiences and support. The two (2) key areas identified, where challenges were predominantly experienced, were within the categories of institution and department/supervisor.

The CIT methodology allowed for greater probing into students' experiences, and critical incidents that shaped students' overall experience were expressed. Not every student could provide four (4) anecdotes, thus resulting in a total of 87 incidents: 40 positive and 47 negative. Overall, the negative experiences were marginally greater in number than the positive experiences. Analysis of the data revealed three core categories: (a) student experience with institutional performance, (b) student experience with their research supervisor and, (c) students' own personal experience whilst on the master's programme.

The six (6) critical touchpoints or areas of significance were identified as: online registration and funding, personal Influences, supervisor-student relationship, acceptance onto the master's programme, the online digital system and the overall research support that was experienced. These were all underpinned by two crucial service quality determinants: communication and responsiveness. Additionally, students' wish-list items were probed. The findings suggest that an integrated, holistic approach with input from all the major stakeholders would be useful in enhancing the overall customer experience (CX). Students expressed a willingness to

contribute their thoughts, suggestions and feedback on the programme and the processes involved. This would then mean that students would need to be embraced as co-creators of the master's programme.

This chapter culminated in a Joint Display Table where both qualitative and quantitative results were presented. The results of this Joint Table indicated Finding 1 as being confirmatory, Finding 2 displayed a degree of divergence, whilst the final results did not align with each other. The next chapter will discuss the composite findings of both the qualitative and quantitative data.

CHAPTER 7: DISCUSSION

7.1   Introduction

This chapter will focus on interpreting the findings from the data and the implications thereof. The main goal of this study, the research questions that guided it, as well as the major findings will first be revisited before moving on to the discussion. The purpose of this research was to examine the role of Customer Experience (CX) in influencing Market Orientation (MO) initiatives in a Higher Education (HE) setting. Consequently, the objective of this study was to highlight that focusing on CX rather than just evaluating customer satisfaction levels can be a greater source of information for guiding MO objectives and their implementation. Both research supervisors and master's students participated in this study, which employed a mixed methods research design. The quantitative data in this study was generated from a survey that supervisors completed, the results of which were able to indicate the degree of Individual MO that they practiced. Master's students shared their rich, diverse experiences of the master's programme, through semi-structured interviews using the Critical Incident Technique method.

The central question that guided this study was as follows:

"How does Customer Experience influence the implementation of Market Orientation at Higher Education institutions?".

In addition, 3 sub-questions were also focused on:

1] To what extent do supervisors of postgraduate students implement a Market-Oriented strategy?

2] What are the experiences of students on the postgraduate program at Higher Education (HE) institutions?

3] What is the relationship between Customer Experience and Market Orientation?

A holistic view ensured an integrated approach to answering the research questions. The discussion will be augmented with the inclusion of relevant literature on MO and CX. The discussion will begin with revisiting the research background, then follow with the findings of the three (3) research sub-questions. Sections 7.3 to 7.5 discuss the findings of the 3 research sub-questions in relation to the relevant extant studies This will follow with the discussion of

the adapted conceptual model, and the key findings/results of this study. Finally, this chapter will end with the concluding remarks.

7.2 Revisiting the Research Background and Conceptual Model

A marked increase in the competitive landscape of HE institutions globally, coupled with the transformation of the student as a customer, have left universities with little choice but to evolve into market-based customer models (Davis & Farrell, 2016). South African HE institutions, serving a diverse student population, are also faced with fierce competition for market share (Mokoena & Dhurup, 2016), thus compelling HE institutions to become more market oriented (Vaikumthavasan et al., 2019).

The MO construct has been focused upon by numerous scholars from an organisation level, most notably by Kohli and Jaworski (1990), and Narver and Slater (1990). Researchers have subsequently looked at the contributions of individuals and their market-oriented behaviours. Previous studies have focused on Individual MO, in multiple contexts, in relation to: impact on selling and customer orientation (Baber et al., 2020); innovation (Vaikumthavasan et al., 2019); work performance and future intentions of employees as consequences of individual MO (Ho et al., 2011); professionalism (Hampton et al., 2009) and individual antecedents of individual MO (Schlosser & McNaughton, 2007). There has been a dearth in studies that looks at Individual MO within the HE sector, especially academics and senior academics (Vaikumthavasan et al., 2019).

Waqas et al. (2021) posit that developing countries present a rich ground for future research, as there are several facets of CX that are yet to be discovered there, due to their unique cultural and economic structures. South Africa was thus fertile ground for a deepened understanding of CX. Moreover, the role of employees (in the case of this study, research supervisors) in creating a better CX should also be explored, especially in a context, where customers co-create the experience (Lemke et al., 2011).

Section 7.3 to 7.5 now discusses the results/findings of each research sub-question in greater detail.

7.3 Discussion: Sub-Question 1

The main objective of this question involved understanding to what degree individuals (research supervisors) contributed to the MO of a postgraduate programme at a HE institution.

The individual MO survey signified a major shift in the accountability for MO actions from the institution to the research supervisors. The use of "I" in each item is clearly different from Jaworski and Kohli's original seminal measure of MO (Schlosser and McNaughton, 2009). In order to determine the relationship between MO and CX, it was first necessary to assess the degree to which research supervisors practiced the concept of MO within the postgraduate programme. Exploratory Factor Analysis (EFA) was performed, resulting in a factor structure that comprised eight (8) elements of MO. A reliability analysis using Cronbach's alpha coefficients demonstrated that the factors had a good internal consistency of reliability. The factors presented as valid constructs through convergent and discriminant validity analysis.

Table 35 displays the 8 factors that emerged:

TABLE 35: 8 MO Factors

Information Acquisition/Generation	Information Dissemination	Co-ordination of Strategic Response
• Alumni Feedback - Factor 2 • Encouraging Student Feedback - Factor 4 • Industry Interaction - Factor 6 • Social Media Usage - Factor 8	• Information Dissemination - Factor 3	• Supervisor Response - Factor 1 • Program Relevance- Factor 5 • Measuring Student Satisfaction - Factor 7

Table 35 situates each of the eight (8) factors in the original conceptual model of MO by Jaworski and Kohli (1993). Four (4) of the factors are related to Information Acquisition/Generation (factors 2, 4, 6, and 8); one factor was related to Information Dissemination (factor 3), and three factors were related to Co-ordination of Strategic Response (1, 5, and 7). The results provide evidence that supervisors do indeed practice a certain degree of MO at University X. The factor means of 1,4 and 7 suggest a moderate to strong implementation of MO, whilst the factor means of 3,5,6 and 8 presented an average/moderate implementation. Factor 2 – Alumni Feedback –presented a mean (3.537) at the lower end of

the continuum, with only a third of supervisors making contact with their students who had graduated.

7.3.1   Co-ordination of Strategic Response

The factor "Supervisor Response" exhibited the strongest positive response (mean =5,48). This factor points to the level of support students are expected to receive from their research supervisors, the action response to the market intelligence captured and the speed at which these actions respond to student needs (Bugandwa Mungu Akonkwa, 2009). The majority of respondents (86.4%) were in agreement, suggesting that supervisors engaged in timely practices of being responsive to students' needs and finding solutions to issues that the latter might have encountered. Supervisors hence displayed a strong sense of MO behaviour when faced with co-ordinating their responses. This timely action or "responsiveness" (Tran, et al., 2015) determines the degree of implementation of MO strategy (Kohli & Jaworski, 1990; Narver & Slater, 1990). This finding suggests that the "student voice" is being acknowledged by supervisors, however their interventions/actions were not being fully supported by the institutional system and processes.

Factors 5 and 7, Programme Relevance and Measuring Student Satisfaction both exhibited moderate means of 4.649 and 4.755 respectively. Programme Relevance encompasses satisfying student needs, aligning the programme with industry requirements and reviewing the current programme offering. Two-thirds of the supervisor respondents were in agreement that they were responsive to this factor. It can thus be inferred that engagement and reflection does occur amongst supervisors, with their colleagues and with students.

Another strategic response and crucial MO factor was the measurement of student satisfaction levels. The respondents that were interviewed (47.2 %) indicated that they complete timely and systematic student satisfaction surveys. This result does not tally with the response from supervisors at the beginning of the survey, where they were asked if they completed master's students' evaluation forms. Almost two thirds (64%) of respondents agreed that no formal evaluation protocol was in place. This disparity in results could be attributed to supervisors carrying out their own, informal student satisfaction surveys. In the absence of an institutional postgraduate student satisfaction survey, it is left to individual supervisors' own discretion to gather this information and respond accordingly. This confirms the view that supervisors often

173

operate from their individual silos whilst trying to juggle their many responsibilities. The issue that arises is whether this information, which is collated from supervisors, students and colleagues, is being relayed back to institutional level where this information can inform the programme review and relevance. Does University X provide for a timely, accurate feedback mechanism that can inform MO practice at University X? It is important to note that if HE institutional strategic responses are to be at all effective, then the inherent differences in motivations of student groups (i.e., international versus domestic) ought to be acknowledged (Ross, Grace, and Shao, 2013).

Supervisor respondents who conducted student evaluation forms on an annual basis [Mean (M) = 5.031, Standard Error (SE) = 0.359] showed more favourable attitudes to measuring student satisfaction attitudes versus those who had never evaluated (M = 4.190, SE = 0.308). Student satisfaction is based on students' needs and expectations being met. Measuring student satisfaction can inform supervisor practice, but more importantly, this information can feed into the programme evaluation which should take place annually. Student expectations and needs are not static; they are ever-changing, as are their personal circumstances that impact their studies. Supervisors did express their willingness to receive valuable student feedback that would allow them to be more responsive to student needs and to reflect on their current practices. Strong emphasis was placed on the need for a formal, more engaging feedback mechanism, and not just relying on a tick-box exercise.

Employees may be unwilling to act in market-oriented ways if they perceive an organisation to contribute at a low level or less than the employee expects (Schlosser & McNaughton, 2007). Supervisors, in general, expressed positive sentiments of the master's programme, conceding, however, that there was room for improvement. Negative perceptions of the programme included battling with a system that was fragmented and burdened with bureaucracy; an online digital system that added to the administrative burden, a need for infrastructure upgrades and the need to develop a more structured student support system (roadmap of the programme). These sentiments were shared by supervisors' and students'. Furthermore, the current system does not financially reward supervision efforts. Previous research (Jaworski & Kohli, 1993) has found that the strongest driver of individual MO is a market-based evaluation and reward system.

7.3.2   Information Dissemination

Information Dissemination (M=4.298) is critical in MO strategy, measuring the degree to which information is shared within departments and across the institution. Coates et al. (2016) speak of "data siloing", meaning the lack of interoperability between systems and the non-collection of data. This study's results reflect that less than 50% of supervisors across the 6 faculties of University X participating in this study practiced dissemination of information. Hakimi et al. (2010) had found that information flow and action-oriented decision-making could increase where the organisational structures were found to be flexible via employee empowerment, flatter hierarchies and cross-functional teamwork (O'Connell et al., 2001). Narver and Slater (1994) and Hemsley-Brown and Oplatka (2006), on the other hand, found that an integrated application of organisational resources was required by HE institutions to synthesise and disseminate market intelligence. This required putting processes in place to build and maintain strong relationships with customers. In the case of University X, the structures and processes would need to support this information dissemination, otherwise hindering its own progress if it stymied the effective use of integrated information on the student experience. This involves both formal and informal practices of sharing relevant, important information about master's students throughout University X. MO success is contingent upon information exchange within departments and at inter-departmental levels, resulting in better operational performance (Tran et al., 2015). Siu and Wilson (1998) confirm that open channels of communication across the institution is enabling in formulating solutions to students' needs and expectations. Therefore, information dissemination by supervisors can be seen as a key driver of success of University X's MO strategy, providing opportunities for understanding ongoing situations and problems, thereby enabling more informed decision-making (Quinn, 1992; Glazer, 1991).

Supervisor respondents who provided student evaluation forms on a quarterly basis (M=4.953, SE=0.556) and every six months (M=4.981, SE=0.457) showed more positive Information Dissemination compared to those who had never evaluated (M=4.086, SE=0.284). These results indicate that certain supervisors were continuously evaluating students' progress, expectations and their levels of satisfaction. This practice endorses positive levels of MO behaviour amongst some of the supervisors but is not reflective of the majority. Supervisors acknowledged the need for a process flow, a guiding document that can detail what has to be done and who is responsible. A further request by supervisors indicated a need for clear policies

that addressed the monitoring of student progress. This finding then supports the view that if the institution provided the proper MO support, supervisors would be more willing to engage in higher levels of MO.

7.3.3 Information Acquisition

HE institutions need to be aware of their students' present and future expectations. This requires the collection and collation of critical information, enabling the institution to gain greater insights into their customers, competitors and industry stakeholders. This ability to collect and process information results in the institution being able to predict their capabilities, adapt their responses and create value for customers (Pelham & Wilson, 1996). Academic leadership lies at the heart of any strategic transformation and includes a variety of sources: management, academics, support and advisory personnel, the environments established, and learners themselves (Coates et al., 2016). Research supervisors are thus in a good position to glean this information from their interactions with students. The results of this study found the following (four) 4 factors related to Information Acquisition:

- Alumni Feedback   (M=3.537)
- Encouraging Student Feedback   (M=5.042)
- Industry Interaction   (M=4.142)
- Social Media Usage   (M=3.919)

The means of the four (4) factors above range from being significantly positive to slightly positive. These results suggest that supervisors practice a strong MO when it relates to encouraging student feedback, whilst industry interaction and social media usage are moderately practiced. Alumni Feedback reflects the lowest mean, indicating a low or weak level of MO practice.

"Encouraging Student Feedback" (M=5.042) was the second most significant MO factor. Approximately two-thirds of the supervisor respondents indicated that they not only encouraged their students to share their experiences, but also engaged with other supervisors within their departments to predict students' future needs. This suggests that supervisors were open to listening to student feedback during their contact sessions. Encouraging individual student feedback is thus important, given that every postgraduate student requires a different

supervisory relationship, ranging from a high level of dependency to a high level of autonomy (McClure, 2005). Supervisors further expressed their willingness to receive valuable student feedback that allowed them to be more responsive to student needs and to reflect on their current practices. These findings signify a strong practice of MO behaviour by research supervisors. This response action is a behavioural element of MO; however, if no action is taken, very little can be accomplished (Kohli & Jaworksi,1990). Thus, continuous monitoring of the students' reactions to interventions is needed, by the institution and supervisors', to establish if they are contributing to more positive or negative experiences.

The factor "industry interaction", displayed a moderate level of MO, however it is unclear if this information is generated formally or informally. Less than half of the respondents were involved in this MO practice. This factor is important in terms of the relevance of the research output that is generated; whether the master's programme is aligned with various stakeholder needs. These industry interactions are necessary to build institutional reputation, secure external funding sources and to focus on areas of research that align with the National Development goals of South Africa. What is also questionable is whether this information is conveyed to the institution's research directorate for input at a strategic level.

The use of social media was embraced by just under half of the respondents, Social Media Usage (factor 8) and Measuring Student Satisfaction (factor 7) were found to be moderately positively correlated, suggesting that social media could be used as a platform to measure student satisfaction levels, but furthermore, also as a platform to reach out to students, to create research communities, and track alumni. This view is affirmed by Chi et al. (2012), who view social media platforms as enabling feasible long-term contact with alumni. Given the extant era of technology, social media cannot be ignored as a valuable platform to connect with prospective, current and past students. Nguyen et al. (2015) also confirm that the use of social media facilitates the search and identification of customers' needs, both expressed and latent, more comprehensively than does the traditional practice.

At the 99% level of confidence there is sufficient evidence to reject the null hypothesis and conclude that Alumni Feedback displays a significant effect. The factor with the most negative response (i.e., Alumni Feedback) was found to be most significant, whilst the least significant factors were those with highest means. Alumni are considered the most important assets of a

University (Chi et al., 2012), bringing invaluable contributions to the university community: financially, by sharing their experience(s) and their professional networks (Jepps et al., 2019). Since 2005, universities have begun incorporating feedback from alumni in performance and accountability systems (Borden, 2005; Ewell, 2005).

Alumni Feedback reflected a slight level of positivity, indicating that it was not fully embraced by all supervisors. This was further confirmed by under a third of supervisors agreeing that they engage with alumni on their experience of the master's programme. This indicates that just under half of the supervisors surveyed do not make any contact with students that have graduated to solicit their feedback on the master's programme. This finding supports that of Vanderlelie's (2015), in which over 80% of alumni were found not to actively engage with their institutions. Supervisors' heavy workloads, coupled with no financial incentive to supervise and exacerbated by issues of time management and unrealistic expectations of them, coupled with no financial incentive to supervise, could contribute to their inability to track alumni students. These results also suggest that once a student graduates from University X, there is no formal mechanism in place to track their career trajectories or to identify which industries they find employment in. HE institutes are increasingly viewing their alumni as valuable sources of both information and financial support, with alumni offering valuable perspectives for academic programme evaluations and student support services. Alumni are also often used to help recruit new students and mentor existing ones (Volkwein, 2010). Furthermore, results imply that supervisors or departments are not actively tracking where students who are interested in pursuing doctoral studies, apply. If they do not choose University X, where do they go – and why? University X could therefore be losing out on the opportunity to include alumni in activities that target current students (Chen, 2018), thereby losing out on an opportunity to strengthen their value proposition.

It also raises the question that given the tremendous workloads of supervisors, why are they still the ones expected to track alumni students? The results suggest that the institution needs to be more supportive of these MO initiatives, thereby fostering a stronger alumni community which in turn supports the university across its endeavours (Jepps et al., 2019). Supervisors expressed that they cannot cope alone, requiring additional student support from the institution and the faculty. These results do not reflect current trends in HE, where alumni surveys include both institutional and departmental questions, thereby promoting multiple purposes from one

data collection (Volkwein, 2010). Furthermore, alumni studies are most useful when characterised by centralised data collection and decentralised use of the data. This further supports the notion that alumni feedback systems be implemented at institutional level (Postgraduate Centre), with supervisors being co-creators of the process. Jepps et al. (2019) recommend building alumni communities during the course of the programme, not leaving it until after graduation, where it is likely to be a case of "too little, too late". This view adds credence to the need to build stronger student/customer experiences at HE institutions.

Alumni Feedback (factor 2) and Supervisor Response (factor 1) were found to be strongly negatively correlated. This negative relationship suggests that whilst supervisors agreed that they were responsive to student needs (most positive response), their responses to collecting alumni feedback were rated the lowest. This relationship suggests that masters' students who have graduated are not consulted to share their experiences of the programme, and that the student-supervisor relationship ceases upon graduation. It is important that students are seen as future alumni to improve the likelihood of long-lasting engagement (Gillan, 2018). This further implies that supervisors could only be focused on their current students' needs and hence respond to them only. Employees may not feel obligated to develop strong customer relationships if they believe that in general the company does not fulfil its obligations (Eddleston et al. (2002). Alumni are a rich source of information, having been through the entire journey. This relates to the reflective element of CX, where recently graduated students transitioning from study to employment are able provide immediate and realistic insights to students on the cusp of the same transition (Jepps et al., 2019). Therefore, Alumni feedback plays an important role in informing MO practice at University X.

The results further indicate that supervisors who supervised 7–12 students (M=5.161, SE=0.363) showed more favourable Alumni Feedback responses compared to those who supervised 0–6 students (M=4.015, SE=0.363). These results suggest that more seasoned supervisors were more likely to be in touch with their alumni students. This could imply a greater level of confidence to ask students what their perceptions of the overall programme were. Vanderlelie (2015; 2017) stresses the importance of building an alumni community whereby academic staff acknowledge their role in supporting alumni during the initial stages of their career development.

Alumni Feedback was also favoured by those supervisor respondents who handed out student evaluation forms annually (M=4.541, SE=0.336) compared to those who had never evaluated (M=3.748, SE=0.288). These findings suggest that supervisors who evaluated their students were more receptive to engaging alumni student feedback that could inform or improve their supervisor-student relationships. This information then needs to feed back to the institutional level, where decision makers can action the changes at a more strategic level.

7.3.4 The Role of Age as a Moderator

Scott (2009) noted a chasm between students and academics in relation to age and the manner in which both groups function. Supervisors function in a world of written language, whilst the younger generation operate in a world of social connectivity and social media. (e.g., mobile phones and social networks such as Twitter and Facebook). This study found that age played a moderating role in terms of seeking alumni feedback and the level of Industry interaction that supervisors displayed. The results point to older supervisors (aged 56–65 years, M=5.444, SE=0.348) being more inclined to generate information from past students than younger supervisors. This could suggest that older supervisors are more au fait with the master's programme and hence in a better position to ask students relevant questions pertaining to it, and their experience. The challenge though, relates to the method that is implemented. Older supervisors might possibly rely on conventional methods of acquiring this information, whereas the younger generation of students would respond much better to the use of social media- or technology-based feedback mechanisms. In wanting to bring these two worlds together, it is perhaps appropriate to look into more structured training programmes to develop effective supervisors not only in terms of academic leadership, but to train and develop supervisors as mentors and counsellors (Scott, 2009), as well as train them in new technologies apropos of the current times.

Supervisor respondents aged 36–45 (M=5.873, SE=0.389) and 46–55 (M=5.407, SE=0.399) showed more favourable industry interaction attitudinal responses in comparison with those aged 25–35 (M=4.658, SE=0.543). Only 10% of the sample were in this age category (25-35), which could indicate that they were more interested on focusing on building their careers than building their research profiles. This was further affirmed by newer, younger supervisors, who found themselves feeling overwhelmed because they were not properly inducted on the processes that drove the programme, which affected their confidence to supervise.

7.4 Discussion of Research Sub-Question 2

The research question was as follows:

What are the experiences of students on the postgraduate programme at Higher Education (HE) institutions?

This phase was inductive in nature, thus a thorough understanding was needed to describe and explain the phenomenon of Customer Experience (CX). The CIT method was effective in studying this phenomenon for which no a priori variables were established (De Ruyter et al., 1995). Within the university context, master's students who were at the time enrolled for the postgraduate programme, were asked to share their overall experience of the programme. Master's students are considered the recipients of the MO behaviour that supervisors practice. The purpose of these face-to-face interviews were to capture their stories in order to build a composite picture of the critical factors/touchpoints that were enabling positive experiences and those factors/touchpoints that contributed to negative/dissatisfying experiences.

The findings (critical incidents and challenges) were predominantly situated between the institution and the research supervisor. The incidents, moreover, were related to a greater number of dissatisfying experiences than positive, satisfying ones. This corresponds with findings by the Council on Higher Education Report (CHE: SASSE, 2010), where students at universities of technology were found to be significantly less satisfied than students at other types of HE institutions (CHE, 2010b). The findings indicate a strong overlap between the challenges experienced by students and the critical incidents that they shared. The discussions in this current study highlight the importance of student engagement by delivering student-centred experiences through a participative approach. The findings, in line with previous studies, highlighted the need to understand affective states and emotions associated with student experiences (Jeleniewski Seidler, 2012).

Analysis of the data revealed three core categories that influenced the customer/student experience: (a) students' experience with institutional performance; (b) students' experience with their research supervisor and; (c) students' own personal experience whilst on the master's programme. Each category will be discussed in greater detail in terms of the key findings.

7.4.1   Student Experience with Institutional Performance

4 (four) key areas, which fell under institutional responsibility, emanated from the findings. These critical touchpoints have the potential to affect the institution's performance in terms of student retention, loyalty and levels of customer satisfaction. These four (4) areas were related to registration and acceptance onto the programme, funding, the online digital system and the overall research support provided. These four (4) areas were considered critical touchpoints by students on the master's programme. These touchpoints were identified as possible inhibitors of progress, lengthening the duration of study time, contributing to students' negative emotional states and ultimately leading to a poor measure of customer satisfaction. Nichols and Miller (1994) have shown that students' academic preparedness for postgraduate studies, their prior learning experiences and their academic success affected their self-belief, which then influenced their motivation and willingness to engage in learning.

The positive aspects of the student experience were related to the sense of pride that students experienced; the use of the word "our" was indicative of the sense of pride that was associated with University X. University X was found to be competitive in terms of their fees model; this in turn attracted both local and international students to the institution. This signified the heterogeneity of master's students: their varied language abilities, their differing cultural identities, their diverse socio-economic backgrounds and the varied expectations of each individual student. Dollinger et al. (2018) established that as the HE market grows more competitive and diverse, student experiences may continue to be an important performance mechanism for understanding the quality of the service.

The registration process was marred with negative feedback from respondents. The lack of flow, transparency and accountability in the process model applied at University X left students having to chase down their applications, often in person. This left students highly frustrated, especially new, incoming students who were not familiar with how things "worked" at the institution. The fundamental issues underpinning all the problems cited were around the lack of communication and responsiveness from the institution. Guilbault (2018) posits that when HE institutions develop retention strategies, a supportive campus environment assists and increases student retention, whilst Ghosh et al. (2001) considered student trust key

to retention and recruitment. Significantly, these retention strategies are the anticipated outcomes of HE institutions that embrace MO.

The online digital system, which is meant to be a repository of information that streamlines the administrative aspect of the master's programme was tagged by students and supervisors as being another great source of anguish because of the inefficiencies of the system. System delays or submission delays resulted in students sometimes having to extend their duration of study, which left them feeling "prejudiced *[against]*", "worried", "disappointed", and "frustrated". The online digital system was perceived to work against progress, resulting in economic, emotional, psychological and social costs that students were left to deal with. A lack of recourse for their grievances, together with the lack of a platform/mechanism where they could "voice" their concerns and suggestions etc., emerged strongly from the findings. The institution was ultimately held accountable for their levels of dissatisfaction that students experienced outside of the supervisor relationship. Previous studies have included affective aspects because what matters most to students is the delivery of the total student experience, which is also a key factor in the assessment of quality in higher education (Baird & Gordon, 2009; Harvey & Knight, 1996).

Students' experience of the overall institutional research support was related to the lack of funding and physical, more tangible support structures. Funding included tuition fees, research costs and subsistence needs. Issues with funding then acted as a catalyst for students to find employment to subsidise the financial shortfalls. This in turn affected their commitment to their studies and left them having to balance their many priorities. The infrastructure requirements and servicescapes that student's cited all spoke to the need for the physical environment to support the postgraduate student differently to the way it does the undergraduate student. Postgraduate students' articulated their specific needs as follows: designated workspaces that were fully equipped with proper ablution and kitchen facilities; 24-hour access to the library – with wi-fi and other postgraduate resources; and well-equipped labs that supported research needs. These were again assigned as institutional responsibility. This finding is supported by previous scholars who suggested a holistic approach that would ensure synergy between the physical infrastructure and the educational and operational strategies of the institution (Baird & Gordon, 2009; Cahill et al., 2010; Gosling & D'Andrea, 2001; Nair et al., 2011).

7.4.2   Student Experience with their Research Supervisor

Here students cited 13 positive incidents and 18 negative incidents related to their experiences with supervisors. The positive incidents were related to supervisor support in terms of developing research skills, creating research communities amongst their students, being empathetic to students' personal issues that were impacting on their studies, and the feedback mechanisms that were in place. Students' expression of their emotions associated with these positive incidents ranged from "really happy", to feeling "really special" and "proud". Every positive experience had a positive impact on students' overall levels of confidence and enhanced their levels of progress.

Students perceived supervisors as mentors, guides, psychologists, role models and counsellors. Their expectations of supervisors in some cases extended beyond an academic relationship to that of "guardian". This was evident when the relationship involved international students who were away from home and experienced isolation, stress and loneliness. These findings provide strong support for a social media strategy connecting students with a virtual alumni community, where students could be provided with additional support from others who had been through the programme (Jepps et al., 2019).

The 18 negative incidents cited were focused on three (3) key areas: supervisor power, roles and responsibilities, and feedback. The findings highlighted the emotional impact these negative incidents had on students' wellbeing and levels of progress in their studies. The term "supervisor power", summarises students' experience in terms of the influence a supervisor can exercise. Language and communication barriers added another layer of complexity to the student-supervisor relationship.

When a student signs up for the master's programme, a memorandum of understanding is expected to be signed by both parties – the student and the supervisor. It is to be expected that during this discussion clarity on the roles and responsibilities of both incumbents would be negotiated and finalised. This would then prevent any future unrealistic expectations to arise. The findings of this study suggest that this happens in theory; however, the prevailing reality that supervisors are faced with does not match the students' expectations. Supervisor and student surveys in Australia, South Africa, and the UK suggested that postgraduate students held a variety of views about research, but they also found contradictions between students' ideas of research and those of their supervisors, consistent with this study (Mullins & Kiley,

2002). These results seem to hold true to date. Darso (2011, p. 154) highlighted the importance of communication if one wishes to lead processes of change through dialogue, whereby "we create the world here and now". This alludes to students being passive customers in their meetings with supervisors, that is, true dialogue is not taking place.

Supervisor feedback was another area where students cited dissatisfaction. Their main discontent was the lack of timeous feedback and the tone supervisors used when providing feedback. Delays in feedback were perceived as leading to a loss in momentum, as well as "hurting" the pocket. Feedback received at the last minute resulted in the student experiencing great stress to meet submission deadlines, and in some cases the student missed the deadline completely. What is of greater importance was that the students had to accept this fate, pull themselves up and continue on their journey. Students expressed their discontent with the lack of accountability on the part of research supervisors and the lack of a platform/ communication mechanism where their own "voices" could be heard. On reflection, many students found their inner strengths when going through these adversities, bringing them the reality check that they, as "the student", were responsible for driving the master's journey; supervisors were just facilitators of the research process.

7.4.3 Students' Own Personal Experience of the Master's Programme

The findings suggest that whilst students' personal experiences were beyond the control of the institution, they did indeed impact greatly on the master's students' experience of the programme. A similar conclusion was reached by the PGSE Study conducted in Australia (Kinash, et al., 2016), where it was found that the postgraduate student experience reflected the journey of a student in multiple domains (e.g., academic, personal, professional, and social). The CIT interviews prompted students to reflect on their journeys, and many were surprised by the level of personal growth that they had experienced. For many it was about self-discovery, their ability to adapt, the embracing of new challenges, the achievement of goals, and a sense of accomplishment. Students did not attribute their personal growth and development to the institution, or even their supervisors. The use of the word "I "reflected this. Peer support was another enabling touchpoint for students, albeit it being informal and self-directed. Senior students (3-7) years on the programme) showed a greater propensity to produce research output that impacted on society and the country at large. Finding the balance was part of every student's journey: juggling their studies with work, families, and other responsibilities.

185

These findings affirm that the master's journey it is not a linear process, but rather, it requires a much more iterative, consultative approach.

The wish-list items provided insightful, student-centred suggestions on how the current programme can be improved. These insights can be a valuable resource towards developing University X's value proposition in terms of its master's programme offering. The wish-list items were primarily situated within the responsibility areas of the institution [University X] and the supervisor. This corroborates the findings of the critical incidents, which were predominantly associated with the institution and the supervisor. Students called for a more participatory approach that would provide the opportunity to share their feedback, inputs and challenges throughout the master's journey. This can be achieved via co-creation initiatives, where the voices of students, supervisors and other stakeholders are heard. A similar conclusion was reached by Baranova et al. (2011), where they found that involving students in the design stage of HE services may also help to improve student experiences. S-D Logic argues that organisations no longer solely provide value, but rather, institutions and customers (in this case, students) both play active roles in their interactions as a joint process to co-create value (Díaz-Méndez & Gummesson, 2012).

7.5   Discussion: Research Sub-Question 3

The third question was important to establish the relationship between MO and CX in a HE setting. Hence, it reads as follows:

What is the relationship between Customer Experience (CX) and Market Orientation (MO)?

The overall findings confirm that CX can influence the implementation of IMO at HE institutions, provided students and other stakeholders are all involved through a process of co-creation. This means that the stronger the MO levels of supervisors, the more positive the student experience and the greater the impact on their customer satisfaction levels. The outcome of this relationship would then translate into greater levels of customer satisfaction, retention and loyalty, which are understood as performance indicators in the HE context. The next section will look at how the data collected in this study supports the idea of co-creation at University X.

7.5.1 Co-Creation

HE is shaped by numerous contextual factors which provide a range of opportunities where students can co-create their university experience with staff and the institution. In this study, co-creation sits at the heart of the relationship between CX and MO. Students expressed their intent to be part of the institution's co-creation activities. The current situation bodes well for the institution and research supervisors; however, students and alumni have not been included as participants in the co-creation process, thus they project a weak influence. Co-creation activities can include "students co-creating curriculum through student-led project-based ideas; students co-creating publications and media for the university; students serving as peer mentors or learning advisors for other students; and student representatives within internal quality assurance activities, e.g., focus groups *[and]* workshops" (Dollinger and Lodge, 2019, p. 1). All the listed activities serve as conduits for student voices and perspectives to be heard and incorporated.

Students expressed their desire to be co-creators on the masters' programme, whereby their inputs and feedback could be used to review the current programme offering. In addition, students viewed co-creation as an opportunity to support student retention, especially for those students wanting to drop-out from their studies. Students cited the following platforms where their voices could be heard: research colloquiums where alumni students shared their experiences of the master's programme, formal opportunities to provide their feedback on the supervisory experience, and research workshops where students and supervisors were involved and best practice could be shared. At an institutional level, students' can be useful resources in terms of programme review and building brand reputation. In their research, Dollinger and Lodge (2019) highlight the need for university leadership to stimulate and support student-staff co-creation throughout all levels of the university.

S-D Logic defines individual students as providers of operant resources in their interaction with products and services, with co-creation as the outcome (Vargo & Lusch, 2004). Chi et al. (2012) describe alumni as the most significant assets of a university The quantitative results confirm that alumni students have not been regarded as operant resources at University X: approximately 50% of research supervisors do not make contact with past alumni, whilst 30% of respondents agreed that they engaged with alumni. No formal mechanism exists at University X whereby alumni can share their recent experience of "transitioning from study to

employment*, [thereby]* giving immediate and authentic insights to students on the cusp of the same transition" (Jepps et al., 2019, p. 1). Hence, the construct co-creation is at the core of the adapted model, facilitating inputs from all stakeholders.

Three important sub-findings emanated from the mixed-method questions results.

- Joint finding 1 (section 7.5.2: found the combined findings supporting one another;
- Joint finding 2 (section 7.5.3): results diverged to some degree;
- Joint finding 3 (section 7.5.4): results did not align with each other.

7.5.2   Relationship between Alumni Feedback and Student/Customer Experience

The combined findings support one another. Students' negative experiences with institution-related touchpoints and the lack of capturing alumni feedback both speak to a system that is not geared towards MO.

7.5.3   MO and Faculty Research Platforms

Four (4) MO factors (5,6,7, and 8) were all linked to the relationship with Faculty Research platforms. This suggests that all 4 of these MO factors are moderately implemented by supervisors on the programme. It also indicates a possible disconnect between the supervisor and the research sharing platforms hosted by the faculty, if these exist at all. It can therefore be inferred that these results diverge to some degree.

7.5.4   MO Influencing the Student-Supervisor Relationship

MO factors seven (7) and eight (8) are related to generating market information; factor three (3) relates to information dissemination, and factor one (1) is the supervisor's co-ordination of strategic response. These factors together encapsulate supervisors' collating of information, sharing this information and finally responding in the appropriate manner that brings about solutions for students.

The contradiction presented itself when students' reported far more negative (18 incidents) than positive experiences (13 incidents) in their relationships with their supervisors. Student evaluations were conducted at the discretion of the supervisor, since no formal evaluation

process was in place. New supervisors were themselves unsure of the channels available for providing feedback or sharing information etc., if any. Thus, the joint analysis suggests that seasoned supervisors were probably more au fait with how things "worked', but this did not necessarily translate into a better supervisory relationship.

More than half of the supervisors agreed that they did not use social media to communicate with current and potential students. Social Media can be seen as a complementary tool to traditional communication methods. Communication, which underpins the student-supervisor relationship, was not perceived by students as being optimally practiced. Thus, these joint findings do not align with each other, since students cited feedback and supervisor response as one of their main negative experiences. Therefore, it can be inferred that much is still needed to strengthen the MO actions of supervisors and other role players within University X. The next section will now focus on the adapted model that was derived from the study based on the consistencies and differences that were found from a merging of both the qualitative and quantitative findings.

7.6   Adapted Model Derived from the Study

MO exploration in the context of HE is a developing area of research at both the conceptual and operational level (Ross et al., 2013). This study aimed to gain a deeper insight into master's students' experiences and their ability to better inform MO implementation at institutions of HE. The conceptual model proposed that CX has the potential to influence MO implementation at HE institutions. Furthermore, research supervisors were seen as operationalising the MO concept, resulting in Individual MO (IMO). Master's students were viewed as the recipients of this IMO behaviour enacted by their research supervisors. An increased level of IMO is seen to improve the response strategy of the organisation whilst expanding its ability to satisfy customers consistently (Carlos and Rodrigues, 2012), ultimately resulting in greater student satisfaction levels. The nexus of this cyclical relationship was the concept of co-creation, theorised as a process that inspires continuous and quality interactions between students and institutions (Prahalad & Ramaswamy, 2004). Two key theories underpinned this research, namely, the resource-based theory (RBV), and Service-Dominant Logic (S-D Logic). RBV theory dealt with institutional issues of funding, infrastructure challenges, access to technology, well-equipped labs, etc. The effective delivery of these factors is compromised when institutional resources do not meet demand. This in turn impacts on the competitive advantage

of the institution. The construct co-creation was borrowed from S-D Logic theory, whereby the CX of students, plus supervisors and the institution work together to create a more meaningful, joint outcome of student experience.

The adapted model, Figure 22, will now be discussed in terms of the overall findings related to MO and CX. This adapted model consolidates the results (the quantitative aspect) and the findings (the qualitative aspect) of this study in the context of a HE institution. This model represents an adaptation of the earlier conceptual model that was developed and evaluated during this study.

The rationale behind the adapted model follows below Figure 22

Potential Moderators

Institutional Bureaucracy

Age

Personal Experience

Customer
Satisfaction

KEY: Z = DISCONNECT

Not measuring customer
satisfaction

Relationship with alumni

Potential Moderators

Funding

Feedback disconnect

STRONG

WEAK

W
E
A
K

Alumni

Customer
Experience
Master's student

WEAK

Students' influence

CO-CREATION

STRONG
Institutional

Market Orientation
Institution

**Expectations of
academic transition**

Implementation of IMO

**Supervisor's
influence**

S
T
R
O
N
G

WEAK

WEAK

Restrictive framework

Individual Market
Orientation
Research Supervisor

191

FIGURE 22: Adapted Model

In this new model the drivers/influencers of each of the constructs are included, together with the challenges that impact on the strength of these influential drivers. Furthermore, potential moderators of the relationship between MO and IMO and CX and customer satisfaction (CS) have been added. A brief discussion will follow on the adapted model. This will then be followed by the 4 key findings in relation to the new adapted model.

7.6.1   The Adapted Model Explained

This cyclical model highlights the need to keep the cyclical flow of MO, CX and S-D Logic (co-creation) – all requiring a stakeholder participative approach – in motion for HE institutions to remain relevant and competitive. An argument could be made for relationships in the alternate direction, but this diagram is for illustration purposes as guided by S-D Logic, rather than testing the directions and strengths of the relationship.

The MO of the participant HE institution in this study, University X, was found to be a weak driver of IMO. An influencing challenge that weakens this relationship was found to be the restrictive framework that supervisors were exposed to. This restrictive framework challenged the implementation of MO at the individual level (IMO). The ability of the institution to embrace MO was found to be moderated by two (2) factors, namely: Funding, and the Feedback disconnect. Both these moderators' impact on the degree to which MO is being embraced by HE institutions. A further discussion on these moderators' will follow in the key findings.

Individual MO (IMO) was reflected in how research supervisors implemented MO on the master's programme. The relationship supervisors had with their students and the resulting student experience was found to be weak as a result of MO not being practiced optimally and the expectations of supervisors not being met with regard to students' academic transition into postgraduate studies. Students also held unrealistic expectations of their research supervisors, whilst supervisors had to balance their numerous responsibilities, including that of research supervision. This was not an easy task, given the various challenges that both student and supervisors faced.

The qualitative findings provide strong support for CX as a strong influencer of CS (Customer Satisfaction). Despite students expressing a greater number of negative incidents of their CX,

they shared a great interest in participating as co-creators of the master's programme. Furthermore, students' wish-list items indicate a strong desire for a more participatory approach between the institution, the supervisor and the student. This relationship between CX and CS was found to be moderated by the following qualitative factors: institutional bureaucracy, age, and personal experiences. Institutional bureaucracy was viewed as an impediment to student success and the time taken for completion of the master's degree. Postgraduate students' age and personal experiences played influential roles in terms of their perceptions, coping mechanisms and CX. The ultimate effect was on the level of CS that students experienced.

The final relationship in the new model is between CS and MO. The results predicate a weak influence between CS and institutional MO. The influencing challenges contributing to this weak relationship were identified quantitatively as the absence of a formal measurement of CS by the institution, and a weak relationship with alumni. Both students and supervisors were in agreement that a formal system needed to be implemented to systematically measure and monitor student satisfaction levels and keep track of alumni. Engagement with alumni was viewed as an institutional function.

The crux of this model is the construct of co-creation. Co-creation is placed centre stage, touted as being strategically important when seeking to strengthen human relationships and creating shared value in spite of innumerable differences. HE institutions in particular need to look towards including co-creation as a strategic imperative. The findings of this study suggest that University X and research supervisors currently have strong levels of influence in terms of co-creation. University X together with research supervisors have the power of influence to introduce various co-creation practices (discussed in section 7.5.1). The findings further suggest that students and alumni exert a weak influence. This means that the 'student voice" is not being heard, due to alumni and current students not being part of any co-creation initiatives at University X (sections, 7.4.3 and 7.5.1 discusses this in depth).

The process of value co-creation allows for institutions and students to work together to improve the student experience, where students' differing knowledge and resources can jointly interact with university staff and faculties to promote more integrated, superior outcomes, as

opposed to only one party (i.e., the institution) trying to satisfy the needs of the other (Frow et al., 2015; Von Hippel, 2009; Zwass, 2010).

This study resulted in four (4) key findings in relation to the adapted model.

7.6.2   FINDING 1: Funding as a Nemesis (Potential moderator)

Powell and Mckenna (2009) have argued that the move from Technikon to University of Technology [UoT] arose more out of a "reputational marketing ploy" than a fundamental change in identity, resulting in many of the previous features of the old Technikons still evident today. This change in status to "University" impacted funding: where previously, the old Technikons had operated within their own funding model, the new funding system, operational since 2007, treats all Universities in terms of one set of rules (CHE, 2016, p. 325). The implication of this was that UoTs could now include a stronger research focus despite having neither the background, skills nor resources to do so. The research impetus was further fuelled by the availability of higher levels of funding for postgraduate qualifications for students who submitted within the minimum time (Garraway & Winberg, 2019). Institutional funding is contingent on these Governments' subsidies, which influence resource allocation to infrastructure and servicescapes, distribution of staff workloads and funding for research supervision, among other things.

Funding is viewed as the nemesis of MO being embraced optimally by UoTs, since all resources, incentives and support are linked to the ability to fund these MO enablers. From a student's perspective, this new funding model could explain their experiences with the lack of proper infrastructure, servicescapes, well-resourced labs, and designated workspaces to support postgraduate needs. The current model provides funding for South African nationals only, and all funding is for tuition only, not covering master's students' ancillary costs. Students' access to the available funds are via their respective research supervisors. This is indicative of the tremendous responsibility supervisors are burdened with.

Supervisors are at the core of the increasing student demand for acceptance onto postgraduate programmes. The issue that arises here is the short supply of supervisors to match these needs. Furthermore, it is expected of supervisors that they meet the diverse needs of postgraduate students without any financial reward. The student and supervisor experience both highlight

the consequences of the funding constraints UoTs are faced with. It can further be inferred that these constraints will indeed impact on the institutions' ability to support MO initiatives by research supervisors.

Funding is an institutional function that is outside the locus of control of both student and supervisor. Access to this funding is dependent on supervisor co-operation, and the student's willingness to apply. Prior research had found that the higher the degree of MO by a university, the higher the institution's ability to obtain non-traditional/nongovernmental funding (Mainardes et al., 2014).

7.6.3   FINDING 2: Disconnect in Feedback Loop

A strong MO (the absolute ideal) would indicate that the cyclical flow of information acquisition, dissemination and strategic response would be part of all employee routines. De Jonghe and Vloeberghs (2001) reiterate this point when they say that MO ought to be practiced at HE institutions; however, this is not always possible in the ideal manner. The various challenges universities and their employees face do not allow for the optimum practice of MO behaviour. University X presents evidence of responding to student needs; however, the "ideal" operationalisation of MO is not fully trickling down to all research supervisors. It has been suggested that a MO strategy creates a value co-creation ecosystem with both the internal and external actors, and knowledge acquisition is used to make the institution more competitive (Cai et al., 2015). The results of this study indicate a disconnect in the feedback mechanisms between the student and supervisor, supervisor and faculty/institution dyad which could be attributed to resource constraints, bureaucracy, centralised systems, and the hampered flow of information throughout University X. However, what is clear is that this disconnect in the feedback due to systems and processes inhibits MO being practiced optimally.

This research study further highlights the value that can be reaped from universities striving to implement more efficient and effective channels of communication with all their various stakeholders. Student voices are not fully being heard, given that a formal feedback mechanism does not exist and Alumni Feedback is also not practiced formally. Supervisors indicated that their students were given opportunities during meetings to express their feedback; however, the findings indicate that students did not share this sentiment. They preferred a more formal mechanism in place to express their views. They believed that, given the opportunity, their

voices could add value to the program. Students also had no choices in terms of "choosing" their own supervisor. They needed to make the relationship work irrespective of the challenges they might have faced. Many students felt isolated and alone, and searched outside of the student-supervisor relationship for support and guidance. Students also felt that supervisors were not being held accountable for their inactions and even lack of research mentorship.

These results complement the views expressed by Elsharnouby (2015), wherein the results strongly suggested that perceived faculty/supervisor competency was critically important in shaping students' satisfaction with their university experience. The results provide insights into students' views' of the desired qualities supervisors should display. The Australian PGSE report (2016) found that universities have not placed sufficient focus on the postgraduate experience, and that it is only through the application of more equitable resources that a greater degree of understanding, improvement and strategic action can be realised.

7.6.4 FINDING 3: Restrictive Framework

According to Kohli and Jaworski (1993), the consequences of MO affect employees, customers and performance in organisations. The findings of this study suggests that in certain areas, University X has embraced the MO philosophy. However, this philosophy has not fully trickled down to all research supervisors. Akonkwa (2009) highlights the role of institutional autonomy if institutions are to be flexible and responsive to their markets: in adapting their educational offerings to industry, and to new students' requirements (adult, lifelong learning, distance learning, etc.). The online digital system that manages the administrative aspect of the master's programme was unanimously agreed upon by both supervisors and students as being dissatisfying, bureaucratic, and not user-friendly. Centralisation, which limits delegation of decision-making authority in an organisation, negatively affects MO by inhibiting a firm's information dissemination and utilisation (Matsuno et al., 2002). The centralised online administrative system, which was meant to support a smoother flow of information dissemination, appeared to inhibit MO practice because of it being perceived as non-user-friendly and even onerous at times. The faculty meetings that dealt with ethics were also viewed as inflexible as its meetings occurred on a quarterly basis only.

It is the supervisor, through his/her behaviour and responses, that operationalises the MO concept. Buy-in from all employees is a pre-requisite for MO to be embraced through all layers of the university. The findings suggest that at a strategic level, efforts are being made to

embrace the concept of MO. However, the operationalization of these strategic imperatives in the master's programme is not being implemented as expected. The latest Council on Higher Education Annual Report (2019) indicates that the research output of a University of Technology academic staff member is approximately one-third of that of an academic at a research-intensive university (CHE, 2019). This statistic provides further evidence that research supervisors at UoTs cannot be viewed in the same way as supervisors at other types of HE institutions.

7.6.5   FINDING 4: Expectations of Academic Transition

Master's students' experiences at University X identified the areas that were critical to student success rates. Students are viewed as the recipients of MO actions. MO is a merging of the efforts and projects of individuals and departments. Therefore, the greater the degree of MO, the greater the customer satisfaction (Felgueira & Rodrigues, 2015).

The findings highlight the following gaps in expectations of both parties in this research relationship.

Supervisors expected students to be aware of what is needed to embark on a master's journey. Facilitating the integration of students into the academic culture of the institution can assist with issues of academic transition (Laboone, 2006). Supervisors viewed their roles as being the "guide", not the teacher, as in undergraduate degrees. Supervisors' expectations included that students would be self-motivated, willing to prioritise their studies, willing to self-learn, and steer their study ship to success.

Students, on the other hand, expected supervisors to be the panacea for all their woes. McCormack (2004) found that one of the complex factors that affected postgraduate completion rates were the tensions between student and supervisor, experienced due to the mismatch between the student's understanding and the institution's conceptualisation of postgraduate research. This study found that students' personal challenges did impact heavily on their studies, more so on their emotional state of mind. Students' expectations of supervisors were often unreasonable; however, this can be easily remedied when taking their wish-list items into consideration.

The results confirm that universities need to cater for students with diverse languages and life experiences in more inclusive ways. Students' intellectual abilities, study habits and methods, sense of responsibility and personality can be seen as valuable resources to universities (Díaz-Méndez & Gummesson, 2012). Prahalad and Ramaswamy (2004) advocated the integration of students' resources with those of institutional resources which enable a range of activities and experiences that encourage exchange and interaction, thereby leading to better practice and innovation.

In this study, student "voices" have provided their resource inputs by requesting the following: a clear document that provides a roadmap of the master's programme together with alumni testimonials; institutional/faculty research colloquiums where students could raise their issues amongst peers and other supervisors, and where part-time students' needs have to be prioritised because of work commitments that might prevent them from attending. It is now incumbent upon the institution to acknowledge these valuable resources to encourage a stronger practice of MO. This would in turn strengthen the value proposition and competitive advantage of institutions.

7.7   Conclusion

This chapter focused on interpreting the findings from the data and the implications thereof. The overall findings suggest that CX can have a positive influence and drive MO under certain conditions, these being the institution's commitment to MO through its systems, processes and ideologies that support such a philosophy. Furthermore, this philosophy has to be consciously filtered down to supervisors so that they also operate from the same level of MO consciousness. Students (prospective, current and past) are an integral part of MO at HE, hence their inclusion as the primary stakeholders in this strategic imperative. The confluence of this tripartite relationship is the notion of co-creation. This study supports the views expressed most recently, by Dollinger and Lodge (2019) where they emphasised the need for university leadership to engender and support student-staff co-creation throughout all facets of the university.

The research questions had to be addressed holistically in order to provide a realistic synthesis. The MO and CX constructs were contextualised within the HE sector, where influencing factors were explored. The quantitative results indicated that overall, supervisors did indeed practice a moderate degree of MO. The qualitative findings presented students' experiences of

the postgraduate programme. The findings brought to the fore the gap in expectations on the part of both parties. Students expressed this as, "a gap between what you want and what they're giving". They further expressed their willingness to partner (co-create) with the institution, which could result in a win-win situation for all parties, seeing that it was their research contributions that added to the university's competitive ratings. Industry partnerships were foregrounded as being instrumental in guiding the relevance of their research output, which could result in additional financial support for the institution.

An adapted model was presented with additional drivers/ influencers, and moderators were added. Four (4) key findings were discussed in relation to the new adapted model. This discussion chapter is now followed by the final chapter, which provides the conclusion to this thesis

CHAPTER 8: CONCLUSION AND RECOMMENDATIONS

8.1   Introduction

This study sought to determine how Customer Experience (CX) influences Market Orientation (MO) in the Higher Education (HE) context. This concluding chapter begins with a short review of the context of the study and then progresses to answer the research questions that were posed at the beginning. The chapter then continues with a discussion of the study's implications for theory and practice. Finally, limitations are noted and suggestions for future research are proposed.

Environmental changes globally have created increasing pressure for institutions of HE. Cuts in government funding, increased competition and changing student expectations require universities to reconsider their markets and competitive environments (Hampton et al., 2009; Sutin, 2018; Dollinger & Vanderlelie, 2020). HE institutes are now viewing MO as a relevant strategy which can help overcome these challenges. However, their missions, culture and structure require special treatment for strategy implementation (Niculescu et al., 2016; Bugandwa Mungu Akonkwa, 2009). Adopting an MO approach places the focus primarily on students to improve the customer-service provider relationship.

The South African HE landscape has its own unique challenges given the legacy of apartheid, hence this study has examined how CX influences the implementation of MO at HE institutions. The objective of this study is to highlight that focusing on CX rather than just evaluating customer satisfaction levels can be a greater source of information to guide MO objectives and its implementation. It is no longer acceptable to treat students as a homogenous group, when transformation and diversity are being recognised as game changers and prior research indicates that there are differences in how different subgroups experience HE in South Africa (CHE, 2010).

This study has important implications for research on MO and CX, especially in the developing country context. The outcomes and findings of this study would equip key HE stakeholders with relevant information for developing effective strategies, processes and systems that would support the practice of MO. Furthermore, institutions would be persuaded to adopt a greater customer participative approach, where students partnered in the co-creation of their

experiences (Marie et al., 2016; Marquis et al., 2017). The key findings from the adapted model will be discussed followed by that of each research question.

8.2 Key Findings of Study

The key finding of this study relates to the development of a model that was adapted from the initial conceptual model. This will now be discussed below.

8.2.1 Development of Model

An adapted model was developed from this research study's qualitative findings and the quantitative results, at University X. The adapted model resulted in four (4) key findings that speak to the situation experienced by supervisors and students at a HE institution in South Africa:

Finding 1: Funding as a Nemesis

Finding 2: Disconnect in the Feedback Loop

Finding 3: Restrictive Framework

Finding 4: Expectations of Academic Transition

The main contributions of this study includes the following: a model was developed and evaluated at University X, a HE institution. Based on the results and findings, an adapted model emerged that identified the interfaces between the various stakeholders and their impact on MO. This adapted model reflects the construct relationship between MO and IMO. The qualitative findings reflect the relationship between CX and CS. In addition, the drivers of these constructs and the challenges that influenced these relationships were highlighted. Finally, the recommendations include how to address MO and CX by including all relevant stakeholders in the co-creation process. Furthermore, it is recommended that the situation at University X can be improved by strengthening the weak drivers, reviewing the challenges proactively, and adopting a more participative stakeholder approach that benefits all parties, especially the student.

The main question that this study proposed to answer is: How does Customer Experience influence the implementation of Market Orientation at Higher Education institutions?

The findings revealed that CX has the potential to drive MO if HE institutions adopt a co-creation approach. This co-creation approach involves the institution and all its key stakeholders. This approach can ensure that Universities remain competitive by serving their key stakeholders, their students, in a much more focused manner. This approach also brings to the universities' attention the value of more collective inputs and where their limited resources can be allocated more effectively.

The three (3) sub-questions were as follows:

8.2.2 Supervisor MO Practice

This question (**To what extent do supervisors of post-graduate students implement a market orientation strategy?**) sought to determine the degree to which research supervisors practiced MO behaviour. The results reflect that supervisors do indeed practice an overall moderate level of MO. The challenges that these supervisors are faced with do impact on their ability to fully practice MO. The role of the institution in promoting positive MO was also found to be instrumental in how MO was adopted by postgraduate research supervisors. The results further indicate that MO is not the supervisor's responsibility alone, but also that of the institution. MO thus requires a synergy between the institution, its employees, industry, students and alumni.

8.2.3 Post Student Experience

This question captured the master's students' experience of the postgraduate programme. The question was as follows: **"What are the experiences of students at Higher Education institutions on the postgraduate programme?".**
This study acknowledged the complexity and diversity of postgraduate student experiences on the postgraduate programme, where their journeys encompassed multiple domains (e.g., academic, personal, professional, and social). The findings indicate that students had experienced a greater number of negative experiences than positive ones. The critical incident technique (CIT) that was used, allowed for students to narrate incidents that were deemed

important to them. The incidents were predominantly situated within two categories, the institution and the supervisor. Three core categories were found to influence the customer/student experience: (a) student experience with institutional performance, (b) student experience with their research supervisor and (c) students' own personal experience whilst on the master's programme. Furthermore, students expressed their wishlist items that were primarily situated within the responsibility of the institution (University X) and the supervisor. The wish-list items provided valuable insights and can be a valuable resource towards developing University X's value proposition with regard to its master's programme offering.

8.2.4 Relationship between Customer Experience and Market Orientation

The overall findings confirm that IMO influences the CX, which ultimately drives customer satisfaction (CS). This is, however, contingent on the institution's ability to promote co-creation initiatives amongst its key stakeholders. This study's findings indicate that the stronger the level of IMO practiced by supervisors, the more likely it is that the student experience would be positive, and the greater the impact on their customer satisfaction levels. The practice of co-creation between the university and all its stakeholders, especially students, would further enhance this relationship. The outcome of this relationship would then translate into greater levels of customer satisfaction, retention and loyalty, which are understood as performance indicators in the HE context.

A detailed discussion of the implications for theory and practice will now follow.

8.3 Implications for Theory and Practice

8.3.1 Theoretical Contribution

This study adopted the resource-based view (RBV) as the overarching theory base, whilst the Service-Dominant Logic (S-D Logic) theory formed the theoretical basis for this study. Both these theories were used to develop the conceptual model. The RBV theory was used to explain the resource constraints that institutions dealt with, especially around issues of funding, infrastructure provisions, and use of technology. This study applied RBV theory by recognising MO factors as important organisational resources, important for HE institutions.

The construct "Co-creation" which stems from the theory of S-D Logic, was used to link the various constructs of the adapted cyclical model. Co-creation is the mutual interface that all the constructs interact with in the process of co-production. The adapted model further suggests

that the institution, research supervisors and master's students can be viewed as the 3 key actors, that bring knowledge, as an operant resource, to the value creation process (Vargo and Lusch, 2004). RBV theory views knowledge as unique, rare, valuable, and inimitable, whilst the three actors in the MO strategy, at University X, can be viewed as resource integrators and co-creators of value (Paswan et al., 2014).

This study adds to the research on the meaning of MO, the performance implications of being market oriented, and the processes for achieving a MO. The current literature on MO offered little understanding of MO perspectives and the behaviours of individuals within service organisations (Schlosser & McNaughton, 2009), hence this study was in response to that call – moreover, within a developing country context where a paucity of research exists. This study contributed to the literature on MO from an individual-level, by identifying eight (8) individual MO dimensions in the context of HE. These behaviours have the potential to improve the antecedents of MO, especially CX and create superior value for students and all other stake holders (Li and Ko, 2021). This study highlights the need for research supervisors to embrace knowledge sharing among academics both internally and externally (Fullwood et al., 2019). Furthermore, this study adds to the understanding of the ideological gap expressed by Ng and Forbes (2009, p. 54). This study's findings stimulated greater insights into the difference between designing the service toward fulfilling students' expectations and designing the service toward what the institution believes the students should experience, which results in a more nuanced understanding of South Africa's HE student market. This study further contributes to the overall understanding of how CX can be used as a co-creation mechanism to inform MO practice, and the key role of employees in creating this better customer experience. This study confirms that postgraduate students view themselves as co-producers of knowledge. Most recently, Waqas et al. (2021), extended a call for research on CX in the context of developing countries like South Africa, among others, which present rich grounds for further research given their unique economic, social and cultural structures. This study is a timely response to that call.

The focus on a postgraduate cohort of students was in response to the call of a special report by Hegarty (2011) who bemoaned the absence of research on postgraduate students. This study affirms the view by Kotler and Keller (2007) that educational institutions that are equipped

with knowledge about their different market segments can target the chosen ones with the right value-proposition strategies.

8.3.2   Methodological Contribution

Previous research indicated a need to integrate methodologies so that a holistic perspective can be shared (Harrison & Reilly, 2011; Liao, 2003; Liao et al., 2011). This study focused on a mixed method design with two (2) sets of respondents. Prior empirical research has measured MO in HE from either a quantitative or a qualitative perspective alone. This study combines both a quantitative and qualitative approach. Qualitative interviews were meant to provide richer sources of data from students' actual experiences with the master's programme. The Critical Incident technique (CIT) was used to evaluate master's students' experiences. Thus, using a mixed method methodology with specific reference to CIT can be seen as having addressed the methodological gap in MO research.

The individual MO questionnaire was adapted from the original work of Felgueira and Rodrigues (2015, p. 3023), in which the authors had suggested that,*"the proposed scale adaptation matters be corroborated by empirical support"*. Previous studies of MO were conducted mainly in developed countries (Niculescu et al., 2013), yet the nature of developing countries is quite dissimilar (Umrani & Mahmood, 2015) and the cultural, economic and societal differences need to be considered. This study has therefore contributed to validating the UNIVERSITY-MARKOR scale in the context of the developing world. The questionnaire was empirically tested within the South African context of HE, thereby validating the research instrument.

8.3.3   Managerial/ Practical Contribution

The Council of Higher Education South Africa (2010) promoted the idea that since HE was becoming more trans-disciplinary and trans-institutional in nature, the need had arisen to break through bureaucratically entrenched barriers and instead look "through the eyes of the student", whereby practical problems related to student experience insights can help shape practice (CHE, 2010). Education is viewed as a service-driven industry, where postgraduate research education is becoming increasingly competitive (Angell et al., 2008). Universities in South Africa have been mandated with having to enhance the intellectual and social development of

the students at those institutions (Wangenge-Ouma & Kupe, 2020). This study contributed to the conversation on how best to serve student/customer expectations within the postgraduate space with value-laden institutional offerings, given their resource constraints. In addition, the proposed conceptual framework adds to the understanding of CX and MO within the context of HE. Enache (2011) identified the need for a framework that provided relevant information and instruments to improve the market presence of any postgraduate institution.

Academics and policy-makers recognise the necessity for South Africa to progress from a resource-based economy to a knowledge-based economy as envisaged by the National Development Plan (Zarenda, 2013). Management at HE institutions are charged with a responsibility to produce well-grounded postgraduate students who complete their research projects timeously and this study offers valuable insights into how this can be made possible. This study also brings to attention the importance of institutional reputation and research service experience in promoting a conducive environment that supports timely output of postgraduate students who can transfer their knowledge and skills into sectors of the South African economy. Moreover, this study highlights the specific dimensions of MO that need to be fortified to enhance the student experience and the quality of the services provided by HE institutions.

This study's findings suggest that co-creation can be viewed as a complementary strategy to MO and CX, where it would facilitate early detection of students' perceptions and perspectives of master's research. This in turn would help alleviate the tension arising from the gap between students' perceptions of research and those of the institution. If managed properly, co-creation can be seen as an effective way to facilitate the on-time completion of postgraduate master's studies.

8.3.4. Societal Contribution

Arvanitakis and Hornsby (2016) coined the phrase Postgraduate Citizen Scholars, where students were not only interested in knowledge production, but were imbedded in the reality of their contexts, showing keen interest in applying their knowledge for the benefit of a society. Given South Africa's legacy of apartheid and the shifting HE landscape, the call to re-create universities as social institutions that address these new realities and contexts is now being echoed (Bawa, 2018). This research study has responded to that call and it is a timely

contribution to address the postgraduate CX as an influencer of more market-driven HE institutions.

Universities of Technology (UoTs), in particular, have had to reposition themselves from a strong teaching focus (a knowledge base focused on principles of practice) to being more research-focused to remain competitive (Garraway & Winberg, 2019). In addition, the South African government's funding model for HE is now dependent on student throughput (DHET, 2012), therefore capacity building initiatives are underway from both a student and staff perspective. The encouragement to focus on research projects with a potential for social impact is now an added responsibility that the institution and supervisors need to promote.

8.4   Practical Implications and Recommendations

Some considerations for practice follow from the results and findings of the current study. The recommendations for University X are structured around the adapted model. The following practical implications for the institution, supervisors and students will be discussed.

The MO of the institution was considered a weak driver of the IMO. A restrictive framework that centralised operations, together with a disconnect in the feedback loop between the institution, supervisors and students, further exacerbated the problem. This issue can be remedied by the institution ensuring that research supervisors play an active role in policy and programme review. This process requires a bottom-up approach where it is driven by supervisors, who are at the frontline of the programme delivery. This will also ensure buy-in from supervisors. However, the current dire conditions that prevail require immediate attention if supervisors are to perform at their optimal levels. Heavy workloads, unrealistic expectations of supervisors, an online digital system that is perceived as being disabling, and the lack of remuneration incentives all add up to a system that is not market-oriented. If supervisors are considered the main custodians of the master's programme, driving students' and their respective research projects, then the institution has to pay closer attention to the needs of supervisors and students alike. Effective MO and co-creation requires a high level of trust and transparency.

The fundamental problem with all the issues cited by research students related to the lack of communication and responsiveness from the institution. University X is encouraged to promote a supportive campus environment that enables student retention through positive student experiences. This in turn will help strengthen the MO of the institution. Furthermore, the university is encouraged to review the bureaucratic processes that disempower staff and students. Leaner, flatter processes with more autonomy assigned to faculties can create an environment more conducive to promoting success.

Alumni tracking and alumni feedback has been neglected at University X. The results imply that supervisors and departments have not been actively tracking where students interested in pursuing doctoral studies, apply. If they do not choose University X, where do they go, and why? It is recommended that University X supports alumni surveys that have space for both institutional and departmental questions, thereby promoting multiple purposes from one data collection (Volkwein, 2010). This supports the notion that alumni feedback systems be implemented at an institutional level (the Postgraduate Centre), with supervisors being co-creators of the process. Furthermore, building alumni communities should take place during the course of the programme, not leaving it until after graduation where it is likely to be a case of "too little, too late" (Jepps et al., 2019). This adds credence to building stronger student/customer experiences at HE institutions.

The results suggest that social media can be used as a platform to measure student satisfaction levels but, furthermore, as a platform to reach out to students; to create research communities; and track alumni. Older supervisors might possibly rely on conventional methods of acquiring this information, when the younger generation of students would respond much better to the use of social media or technology-based feedback mechanisms. In bringing these two worlds together, it is perhaps appropriate to look into more structured training programmes to develop effective supervisors not only in terms of academic leadership, but also the use of appropriate technology to keep in touch with current and alumni students. Social media facilitates the search and identification of customers' needs, both expressed and latent, more widely than the traditional methods.

Students have made an earnest plea for a roadmap or blueprint of the master's journey at University X. This document can be instrumental in paving the path for both students and

supervisors alike. To produce a mutually valuable document, both students and supervisors need to be included and involved in the design process.

Newly recruited supervisors experienced feelings of being overwhelmed because they were not properly inducted on the processes that drove the programme. This affected their confidence to supervise. This needs to be remedied with compulsory induction for new supervisors, together with the appointment of an assigned mentor for the first year.

If University X wishes to improve CX and MO, then practical co-creation initiatives with all stakeholders need to be embraced. These initiatives need to be specific, targeted and confidence building. A practical initiative can include a quarterly research colloquium within faculties, which students can attend in person or via an online platform. Industry professionals together with alumni, supervisors and faculty management need to attend. This would provide an opportunity for all stakeholders to interact, share ideas, experiences and listen to the reality on the ground. The timing is crucial so that staff and part-time students are able to attend.

Funding affects every tier of the institution; hence it is important for faculties and the institution at large to forge industry partnerships where additional funding can be sourced for infrastructure upgrades, especially for postgraduate students. University X cannot treat the postgraduate cohort as a homogenous group or lump them together the undergraduate cohort. Postgraduate students are involved in knowledge production, where research attracts funding, publicity and prospective students. Thus, institutional resources, systems and processes need to support this postgraduate cohort to achieve success.

8.5   Limitations of the Research Study

There were certain limitations that were experienced when conducting this study. Thus, it is important to acknowledge what they were.

Firstly, the postgraduate students who were interviewed reflected their individual perceptions of their experiences at University X. Due to time and budget constraints, only 24 students were interviewed, and their experience may not be reflective of the collective student cohort. Several authors have shared a similar sentiment, where limitations have affected the generalisability of

findings and hampered the ability to cross-reference between diverse stakeholders, institutions and geographical locations (Ning & Downing, 2011; Yeo, 2011; Tam, 2012).

Secondly the use of the Critical Incident Technique (CIT) required that "interview fidelity" checks be fully applied. This was not possible due to time and budget constraints. The researcher did everything possible to ensure that the CIT interview protocol was strictly adhered to and participants were not asked leading questions. It is usually customary to get an expert in the CIT method to listen to every third/fourth interview to check that the CIT method is being adhered to. To mitigate this situation, the researcher completed a self-check after every few interviews to ensure that the CIT guidelines and measures were being adhered to.

A third limitation of this study was not being able to establish within the supervisor cohort who was a full supervisor and who was a co-supervisor. This information would have been useful in the analysis of the data, where the two (2) groups could have been compared.

Fourthly the data that was collected, was based on perceptions, not on measurement. E.g., contact with alumni by supervisors was self-reported, not measured against actual alumni data. This could lead to some bias to reflect a more favourable picture

Finally, this study was conducted at only one university in South Africa, hence the results of this study are unique to University X only. If the adapted model is to be tested at other HE institutions, then it is important to take those specific universities' context and, more importantly, their funding model into account.

8.6 Suggestions for Future Research

Developing countries still present fertile grounds for further research on CX and MO in HE. The unique economic, social and cultural structures of these universities would provide valuable insights into how MO is encouraged and promoted given the resource constraints that all HE institutes are faced with. Further research is needed in the South African context, where supervisors could also be interviewed to gain a more in-depth perspective of the enablers and inhibitors of MO.

This study followed a cross-sectional design, i.e. gathering data from one source at a single point of time. Future research could look at a longitudinal design where interventions are implemented over a period of time and the effects thereof are then tested.

The proposed adapted model would apply to most HE institutions. Thus, it is recommended that this model be tested at other HE institutions (in South Africa and other developing countries), where the strength of the relationship between MO and CX can be tested. In addition, quantitative tests using structural equation modelling can be used to test the veracity of the relationships. This would include testing the strength and the relative influence of the moderators or potential moderators identified in this study.

There is an agreement among authors that student experience is a vital antecedent to many initiatives in HE (Baird & Gordon, 2009; Arambewela & Maringe, 2012).CX is relatively new within the developing country HE context; further research would be beneficial in understanding how employees at HE institutions experienced CX as internal customers of institutions. This could then be compared with the students' experience. The resultant comparative study would be useful in understanding how academics and students experienced the function of knowledge production. The unit of analysis could also be widened to include students from various HE institutions in a specific country (Tan et al., 2016).

Another avenue for further research would be to establish what would be considered best co-creation practices within HE. If this is meant to be inclusive, taking into account the diverse needs of students (due to the declining bearing of national boundaries for students), then what would be an effective way to set-up co-creation opportunities practically?

The use of technology cannot be ignored within the context of HE. Social Media has brought about a higher level of transparency with regard to service quality. Further research can look at how social media is being used within the postgraduate research process: is social media an effective tool for communicating timely information? This will be especially important in developing countries, where the digital divide is a great mediator of access to technology.

Finally, the effects of the global pandemic Covid-19 cannot be ignored. HE institutes have been creative in taking their programmes' online and finding innovative ways of communicating

with students. This opens a plethora of research opportunities, such as how MO is practiced across these online platforms. Or: How have staff and students responded to the new challenges that Covid-19 has presented? And: How is Covid-19 altering the HE landscape globally, and what has institutional response been thus far?

8.7   Conclusion

The primary objective of this study was to highlight that focusing on CX rather than just evaluating customer satisfaction levels can be a greater source of information to guide MO objectives and its implementation. This study examined MO as a whole construct at institutional level, but additionally drilled down further to examine MO implementation at the individual level. The empirical data identified which specific dimensions drove MO at HE institutions, in particular at University X. Overall, University X practiced a moderate level of MO; however, there exists much room for improvement if the results of this study are to be implemented practically. Despite the myriad challenges faced, supervisor's presented a generally positive view of the master's programme.

The current literature depicts the quality of student experience as being student-centric, with the main aim of improving the quality of the HE experience for students (Tan et al., 2016). Previous extant literature placed a focus on identifying factors which influenced student experiences, as well as the relationship between these factors and student experiences. This study looked at the relationship between MO and CX within the developing country HE context. The study focused on the postgraduate's experience of the master's programme. The CIT method ensured that students were able to relate their "own" incidents that they felt either enabled or inhibited their postgraduate experience. The literature also stressed the importance for institutions of HE to include students as co-creators of the student experience (Ng & Forbes, 2009; Yorke, 2000). Thus, the conceptual model was derived from two (2) key theories, resource-based theory (RBV) and Service-Dominant Logic (S-D Logic). This study supported the view that ensuring a holistic approach to creating synergy between physical infrastructure, educational and operational strategies of the institution can be valuable in improving the student experience at HE institutions (Baird & Gordon, 2009; Cahill et al., 2010; Nair et al., 2011). Additionally, this study also found that the total student experience was influenced by economic, social and even political circumstances (McInnis, 2004).

The adapted model presented the scenario at University X in terms of how CX and MO are being perceived and practiced. The major contributions of this study were discussed, together with recommendations and areas for future research.

This study reaffirms the role of the institution, academics/employees and students in building and designing the customer experience at HE institutions. This co-creation process has the potential to inform MO practice at HE institutions, and ultimately impact on improved customer satisfaction levels. Institutions of the future will now be forced to re-evaluate their current practices to be more inclusive in terms of acknowledging students as their main focus, (as their key customers). Finally, developing countries, especially, can no longer put off the development of more relevant and compelling institutional value propositions that meet the changing needs and expectations of students, if they want to compete in the global HE arena.

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Appendix A: UCT Ethics Approval_letter_for_Shameema_Raja

Faculty of Commerce

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@Commerce UCT   UCT Commerce Faculty Office

27th February 2019

Ms Shameema Raja
Graduate School of Business
University of Cape Town

Dear Ms Raja

REF: REC 2019/000/007

CUSTOMER EXPERIENCE AS AN ANTECEDENT TO MARKET ORIENTATION: A MIXEDMETHODS STUDY OF POST GRADUATE STUDENTS

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid for 1 year and may be renewed upon application.

 Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design,questionnaires, or choice of participants.

The ongoing ethical conduct throughout the duration of the study remains theresponsibility of the principal investigator.

We wish you well for your research.

Shandre Swain
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"Our Mission is to be an outstanding teaching and research university, educating for life and addressing the challenges facing our society."

Appendix B: Demographic Profile of Master's Student

Kindly complete this information.   Number ☐

DEMOGRAPHIC PROFILE-Masters Student

Kindly mark the correct option with an X.

Age   21-25   26-35   36-45   46-55   > 55

Nationality: _____

Year of study: 1   2   3   4   5   6   7

If you have exceeded 5 years, please provide a reason why?

_____

Gender: Male   Female   [Prefer not to answer]

Type of Masters: Full Thesis   Course-work/Mini dissertation

INSTRUCTION: Kindly read each statement carefully and indicate your level of agreement by marking with an **X** in the appropriate box. Please give only one response for each statement

1 Very poor
2 Satisfactory
3 Good
4 Very good
5 Excellent

		Very Poor	Satisfactory	Good	Very Good	Excellent
1	My overall experience with the Master's programme thus far :					
1.1	Supervisor	1	2	3	4	5
1.2	Department	1	2	3	4	5
1.3	Faculty	1	2	3	4	5
1.4	Institution	1	2	3	4	5

2	My supervisor's overall knowledge, skills and abilities	**1**	**2**	**3**	**4**	**5**
3	Support that I have received thus far on the Master's programme	**1**	**2**	**3**	**4**	**5**
3.1	Supervisor	**1**	**2**	**3**	**4**	**5**
3.2	Department	**1**	**2**	**3**	**4**	**5**
3.3	Faculty	**1**	**2**	**3**	**4**	**5**
3.4	Institution	**1**	**2**	**3**	**4**	**5**
4	Have you completed a Masters student evaluation form in the last 12 months?	**YES**		**NO**		

Thank You for your participation

Appendix C: Email sent to Masters' Students

Shameema Raja Yusuf shameeyusuf@gmail.com   Tue, Jul 30, 2019, 10:19 AM

Dear Masters student

I hope this email finds you well and blessed!

I am a PHD student with UCT. I am looking at Masters' student's customer experience on the post graduate journey at a University of Technology. I have permission from University X to conduct this research.

I humbly request a face to face interview with you. I would need about 25-35 minutes of your valuable time.

I would like to assure you that all information shared is strictly confidential. At no time will your name, your supervisors or department be used.

Your valued input will indeed help to better understand the current post-graduate experience and provide suitable recommendations to enhance the entire experience.

I am available to interview you at any time from **Monday to Thursday**, even a **Saturday morning** if need be. We can meet at the library in a quiet, safe, space.

Kindly let me know your availability. I am ready to conduct interviews as soon as possible.

I can be contacted via this Gmail address or you can pop me a message via whatsapp on this number: 0681544584

Be Blessed

Shameema

Appendix D: Interview Consent Form

Interview Consent Form

TITLE: Customer Experience as an Antecedent to Market Orientation: A mixed Methods Study of Post Graduate Students

	Please Initial box:
I confirm that I have read and understood the information sheet dated **[insert date…………………………..]** and have had the opportunity to ask questions.	☐
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. Should I not wish to answer any particular question or questions, I am free to decline.	☐
I understand that my responses will be kept strictly confidential. I understand that my name will not be linked with the research materials, and will not be identified or identifiable in the report or reports that result from the research.	☐
I agree for this interview to be tape-recorded. I understand that the audio recording made of this interview will be used only for analysis and that extracts from the interview may be used for a conference presentation, report or journal article developed as a result of the research.	☐
I agree that information will be kept for future research purposes such as publications related to this study after the completion of the study.	☐
I agree to take part in this interview.	☐

Thank you for reading the study information sheet provided. If you are happy to participate then please complete and sign the form below. Please initial the boxes below to confirm that you agree with each statement:

_____   _____   _____
Number of participant   Date   Signature

_____   _____   _____
Researcher Signature   Date   Signature

Copies: *Once this has been signed by both parties, a copy of the signed and dated consent form should be placed in a safe place.*

256

UNIQUE ID:

Interview Protocol

1   Good Day and Welcome. Thank you for agreeing to be interviewed. My name is
     Shameema Raja and I am a Phd student with UCT-GSB.I appreciate you sharing
     your time with me today.
2   This Interview will take about 30-45 minutes of your time. Are you ok with that?
3   Assign unique Identity number to ensure annonimity-FB2
4   Present the consent form for completion and sign off.
5   This research is looking at Masters' students' experiences of the Masters'
     programme in your faculty and department.
6   Before we proceed, I would like to assure you that all information shared today is
     strictly confidential. At no time will your name, your supervisors or department
     be used.
7   Any questions on the study before we proceed?
8   Before we proceed can you tell me a little about yourself

INTERVIEW QUESTIONS

QUESTION 1: What challenges have you experienced thus far as a Master's
student?

Comments: Ask respondent to list them, unpack each one
How did you feel about these challenges?
How did you resolve, overcome these challenges?

QUESTION 2: I want you to think of 2 positive experiences/incidents/something
that happened to you.

Comments:
These incidents are related to your Masters' journey
Take your time, give each one a name/label
Let us take one at a time, what emotions did you experience with this incident?
What did it do for your levels of confidence? Your progress?

QUESTION 3: Now I want you to think of 2 negative experiences that you had

Comments:

These incidents are related to your Masters' journey

Take your time, give each one a name/label

Let us take one at a time, what emotions did you experience with this incident?

What did it do for your levels of confidence? Your progress?

QUESTION 4: In your opinion, how can the master's program in your department, faculty be improved?

Comments: Probes

Why? What? How? When? By Whom?

QUESTION 5 – COMPLETE DEMOGRAPHIC PROFILE

Thank You for your participation

ADDITIONAL NOTES:

Appendix F: Survey Questionnaire for Supervisors

_____

Title of research study for PhD: Customer Experience as an Antecedent to Market Orientation: A mixed Methods Study of Postgraduate Students

This research is being conducted to:

- ▪ Establish the level of individual market orientation implementation

- ▪ Investigate the relationship between Market orientation and customer/student experience

Please note

Any information you provide will be treated with a high level of confidentiality, privacy and anonymity. Your participation is voluntary, and you can choose to withdraw from answering this questionnaire at any point in time. Results from this research shall be published as a whole and not as individual responses.

Contact: Shameema E. Raja, Faculty of Business, Cape Peninsula University of Technology (CPUT) is conducting this research, as part of her doctoral studies being supervised by **Prof. Geoff Bick, UCT- Graduate School of Business.**

Shameema Raja may be reached at mobile number: 0681544584 or email: rajas@cput.ac.za for questions or to report a research related problem.

Consent: *I have read this form and agree to participate in this study.*

Date_____

SECTION A: SUPERVISOR INFORMATION

1. Faculty_____

2. Department_____

3. Age: 25-35   36-45   46-55   56-65   66 and over

4. How many students are you currently supervising? __

5. Indicate the number of students that graduated under your supervision in the last 5 years__

6. Is there a post-graduate program in your department/faculty?   YES   NO

7. Are Masters students given student evaluation forms to complete annually?

         Never   Quarterly   Every six months   Annually

8. What is your overall impression of the Postgraduate Programme that services your students? Please

   explain fully.

9. How does Student feedback inform your supervisory skills? Please explain fully.

10. Kindly indicate 3 challenges that YOU are experiencing as a Supervisor at this Institution. Please name and explain them for clarity

11. Kindly indicate 3 challenges that you aware of that Masters students are experiencing. Please name and explain them fully.

Please note "student" = Masters Student only	1	2	3	4	5	6	7
INSTRUCTION: Kindly read each statement carefully and indicate your level of agreement by marking with an X in the appropriate box. Please give only one response for each statement. **RATINGS** **1** indicates that you strongly disagree with a statement **2** Disagree **3** Somewhat disagree **4** Neither Agree or Disagree **5** Somewhat Agree **6** Agree **7** indicate that you Strongly Agree with the statement.	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor Disagree	Somewhat agree	Agree	Strongly Agree
1. I measure student satisfaction frequently	1	2	3	4	5	6	7
2. I measure student satisfaction systematically	1	2	3	4	5	6	7
3. I interact with industry to find out what students will need in the future	1	2	3	4	5	6	7
4. I interact with industry to find out what organisations will need in the future							
5. In my communication with my colleagues, I periodically review the likely effect of changes in our educational environment, on our students	1	2	3	4	5	6	7
6. I obtain ideas from my students on how to improve the Master's program to better serve our students	1	2	3	4	5	6	7
7. I carry out frequent research on our students in order to know what their future needs will be.	1	2	3	4	5	6	7
8. I review our supervision development efforts with colleagues to ensure that they are in line with what students want	1	2	3	4	5	6	7
9. I contact masters students who have graduated with us in order to learn their perceptions as to the quality of our program	1	2	3	4	5	6	7

Please note "student" = Masters Student only	1	2	3	4	5	6	7
INSTRUCTION: Kindly read each statement carefully and indicate your level of agreement by marking with an X in the appropriate box. Please give only one response for each statement. **RATINGS** **1** indicates that you strongly disagree with a statement **2** Disagree **3** Somewhat disagree **4** Neither Agree or Disagree **5** Somewhat Agree **6** Agree **7** indicate that you Strongly Agree with the statement.	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor Disagree	Somewhat agree	Agree	Strongly Agree
10. I contact masters' students who have graduated with us in order to learn their perceptions as to the quality of our supervision.	1	2	3	4	5	6	7
11. I contact masters students who have graduated with us in order to learn their perceptions as to the quality of our support services	1	2	3	4	5	6	7
12. I keep in touch via social media with current students regularly	1	2	3	4	5	6	7
13. I keep in touch via social media with potential students regularly	1	2	3	4	5	6	7
14. I regularly gather market data/information to be used to improve our masters student experience	1	2	3	4	5	6	7
15. I am able to detect changes in our students' preferences rapidly	1	2	3	4	5	6	7
16. I spend time with other supervisors in the department discussing students future needs	1	2	3	4	5	6	7
17. I encourage our students to make comments /suggestions about their experience at our institution	1	2	3	4	5	6	7
18. I encourage our students to complain if their experience is not positive at our institution	1	2	3	4	5	6	7

Please note "student" = Masters Student only	1	2	3	4	5	6	7
INSTRUCTION: Kindly read each statement carefully and indicate your level of agreement by marking with an X in the appropriate box. Please give only one response for each statement. **RATINGS** **1** indicates that you strongly disagree with a statement **2** Disagree **3** Somewhat disagree **4** Neither Agree or Disagree **5** Somewhat Agree **6** Agree **7** indicate that you Strongly Agree with the statement.	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor Disagree	Somewhat agree	Agree	Strongly Agree
19. I pass on information when something important happens to a student or group of students, such that the entire institution is aware of this information in a short time	1	2	3	4	5	6	7
20. I disseminate data on student satisfaction levels to my department and research heads	1	2	3	4	5	6	7
21. I share data on industry satisfaction of our graduates at all levels at this institution on a regular basis	1	2	3	4	5	6	7
22. I try to circulate documents (e.g. emails,reports,newsletters) that provide information about students to appropriate departments	1	2	3	4	5	6	7
23. I try to bring a student with a problem together with a service or person that helps the student resolve that problem	1	2	3	4	5	6	7
24. I try to help students achieve their goals	1	2	3	4	5	6	7
25. I respond quickly if a student has any problems with the Master's program	1	2	3	4	5	6	7
26. I take action when I find out that students are unhappy with the quality of our supervision.	1	2	3	4	5	6	7
27. I take action when I find out that students are unhappy with the quality of our support	1	2	3	4	5	6	7

263

Please note "student" = Masters Student only	1	2	3	4	5	6	7
INSTRUCTION: Kindly read each statement carefully and indicate your level of agreement by marking with an X in the appropriate box. Please give only one response for each statement. **RATINGS** **1** indicates that you strongly disagree with a statement **2** Disagree **3** Somewhat disagree **4** Neither Agree or Disagree **5** Somewhat Agree **6** Agree **7** indicate that you Strongly Agree with the statement.	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor Disagree	Somewhat agree	Agree	Strongly Agree
28. I jointly develop solutions for students with my colleagues	1	2	3	4	5	6	7

Thank you for your participation