

**Antecedents to Student-Based Brand Equity:  
Student Brand Loyalty  
And  
Perceived Quality in Higher Education**

**PhD**

**School of Management  
Centre for International Corporate Governance  
Research  
Faculty of Business and Law**

**2007**



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CIT THESIS  
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Antecedents to student-based  
brand equity : student brand  
loyalty and perceived

## Abstract

It is clear that postgraduate business students are becoming increasingly analytical in their course and university selection. MBA and other Master of Business students are more aware of the risks involved in choosing the right course and university to study at. For Australia the higher education industry has been one of the fastest growing service exports and Australia's third largest behind tourism and transportation and is worth \$4 billion. With the increasing global competition of university degrees the ability of countries like Australia to continue to capture these benefits over the longer term is unclear. The aims of this thesis was first to enable manager's within non elite branded universities to better understand what steps are needed to enhance student-based brand equity and secondly, to contribute to the understanding of how consumer-based brand equity is created and maintained within a unique service environment of a university.

Following an examination of the literature on brand equity, perceived organisational support, organisational citizenship, cultural values/national culture, university good teaching, and university learning community, six empirically-driven propositions were developed. These were: P<sub>1</sub>, Postgraduate business students' perceptions of their university's reputation affect their perceptions of student-based brand equity (quality, value and loyalty); P<sub>2</sub>, Postgraduate business students' perceptions of a supportive university learning environment affect their perceptions of quality; P<sub>3</sub>, Postgraduate business students' perceptions of a supportive university learning environment affect their perceptions of value for cost and loyalty; P<sub>4</sub>, Postgraduate business students' perceptions of value for cost affect their perceptions of loyalty; P<sub>5</sub>, Postgraduate business students' perceptions of a supportive university learning community affect their perceptions of supportive teaching and supportive administrative services; and P<sub>6</sub>, Postgraduate business students' culturally-anchored value: uncertainty avoidance, affects their perceptions of a supportive university learning environment.

An opportunity sample of postgraduate business students attending a large non elite branded, new generation university based in Melbourne, Australia was selected. A total of 600 students were asked to participate in this study from a range of Master of Business programs being offered through the Faculty of Business and Law. A 91% return rate yielded a final sample of 548 with 510 usable questionnaires. Students

responded to a series of empirically-driven questions relating to: culturally-anchored values; supportive university learning environment; university reputation importance in university and course selection; and student-based brand equity. Descriptive statistics and more advanced statistical analyses were conducted. The latter involved the creation of a measurement model using congeneric factor analyses and structural equation modelling using calibration and validation samples.

This thesis identified the antecedents to student-based brand equity for non elite branded universities which comprised of: students' perceptions of their course and course related experiences; and pre-course related factors. The course and course related experiences, the supportive university learning environment dimensions: learning community; administrative support (helping); and academic support (good teaching); were found to both directly and indirectly influence student-based brand equity: students' perceptions of quality, value for cost and loyalty. There were also two pre-course related factors that were examined within this thesis: university reputation importance at the time of course and university selection; and students' uncertainty avoidance culturally-anchored value orientation. Students' perception of the university's reputation importance at the time of course and university selection both directly and indirectly influenced student-based brand equity. Students' uncertainty avoidance culturally-anchored value orientation, indirectly influenced student-based brand equity through students' perceptions of course and course related experiences.

Postgraduate business students' perception of quality also directly and indirectly relate to their perceptions of loyalty through value for cost. Students' course and course related experiences, explained additional variation in students' perceptions of student-based brand equity: quality, value and loyalty beyond that explained by perceived pre-course related factors, such as university reputation at enrolment and students' culturally-anchored value of uncertainty avoidance. The thesis concludes by firstly identifying some steps available to managers within non elite branded universities to enhance student-based brand equity, and secondly, by noting that this research has only identified some of the ways consumer-based brand equity is created and maintained within the unique service environment of a university and that more research is needed.

## Acknowledgements

This is an opportunity for me to thank the many wonderful people in my life that have provided so much love and support during my research. I would like to acknowledge the support I have received from my supervisory team: Professor Anona Armstrong and Associate Professor Patrick Foley. Professor Anona Armstrong, thankyou for your insight, research expertise and feedback throughout my PhD, it has been greatly appreciated. Your guidance and ability to always make time to discuss my thesis has always been highly valued. Associate Professor Patrick Foley, I thankyou for the confidence and encouragement you placed in my ability to further my research capacity. I still look back fondly at the journey to my PhD enrolment and remember the many chats we had from the year 2000 about my minor thesis research aspirations and your encouragement to extend to a PhD. I honestly feel very privileged and honoured to have had such an exceptional supervisory team throughout my PhD journey.

I would also like to acknowledge all of the love and support I have received from my family throughout my PhD journey. To my parents Paul and Lucy, my gratitude to you both for always being there for me and making the rest of my life a stress free affair. The strength you both possess is truly inspirational and I cannot quantify how much your love and support throughout my PhD journey has meant to me. To my dear brother Dean, or should I say my own personal computer technical expert, what can I say; you are also an inspiration to me. Dean thankyou for your love, support and the technical assistance you have provided me throughout my PhD. Your cheeky sense of humour always brought a smile to my face even in stressful computer glitch situations.

Finally, I would like to acknowledge and thank the Faculty of Business and Law staff who welcomed my research into their classrooms and all of the postgraduate business students who so passionately participated in this research.

## Declaration

I, Ann Mitsis, declare that the PhD thesis entitled Antecedents to Student-Based Brand Equity: Student Brand Loyalty And Perceived Quality in Higher Education is no more than 100,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature



Date 22/3/2007

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# Chapter 1: Thesis Overview

*A higher education institution, like any other business institution, needs to satisfy its clients in order to survive in the business...Specifically, a prospective student comes to know about a higher education institution and/or forms expectations about the quality of service he/she would receive from the institution, from others who have attended and/or are attending the institution, parents, friends, relatives etc...Managing service quality is essential to induce potential students to enter or enrol in a university. Once they are enrolled, it is essential to manage each service encounter in a manner that will result in student satisfaction overtime, in positive word-of-mouth recommendations about the university (Athiyaman 2000, p. 50 ).*

This study explored the antecedents and their direct and indirect relationship to student-based brand equity<sup>1</sup>. This will be examined within this thesis through an investigation of the antecedents of student-based brand equity in an Australian university's Master of Business courses. The antecedents examined will include the importance of students' culturally-anchored value orientation, and how this relates to their perceptions of a supportive university learning environment and to what extent these factors create student-based brand equity.

## 1.1 Objectives and Structure of the Chapter

The purpose of this chapter is to provide an overview of this thesis and its organisation. This chapter is presented in five sections. The first section presents a detailed discussion on the context of this thesis. Specifically it examines the increasing competition within the global higher education sector and its impact on the globalisation of the higher education sector within the industrialised world, in particular Australia. An overview of the brand equity literature is also presented.

<sup>1</sup>*Student-based brand equity comprises of postgraduate business students' perceptions of the brand loyalty and quality domains of consumer-based brand equity.*

Within the area of consumer-based brand equity a particular focus is placed on students. It is this student stakeholder group that is of particular interest within this thesis. The label 'student-based brand equity' is also presented within this section, which identifies the consumer-based brand equity dimensions relevant to a university context for this customer group. Other customer groups of a university such as governments, employers and professional bodies are not being examined in this thesis. The first section concludes with a theoretical introduction into what this thesis will be examining.

The second section of this chapter provides the theoretical introduction and key concept definition by reviewing the relevant literature domains and providing a broad overview. This discussion presents the initial rationale for the consumer-based brand equity elements brand loyalty, and quality. The literature concerning how certain culturally-anchored values and a supportive university learning environment might explain variation in student-based brand equity is also initially presented. Section three of this chapter presents the thesis aims. This section discusses the main aim of this thesis which is to explore the antecedents to student-based brand equity within a university postgraduate setting. It will specifically examine why brand loyalty and the two dimensions of quality (perceived quality and value for cost) may be the relevant elements of consumer-based brand equity for the customer stakeholder group, postgraduate business students. Results from this thesis may not be representative for all postgraduate students within the higher education sector, as the nature of postgraduate business courses investigated in this thesis are vocational. The research questions to be addressed within this thesis are also presented within this third section.

The fourth section of this chapter outlines the significance of this research and section five concludes this chapter by outlining how the remainder of this thesis is organised. It presents an overview of Chapters 2 and 3 both of which are theoretical chapters. Chapter 2 focuses on student-based brand equity and Chapter 3 explores the role of a supportive university learning environment on the creation of student-based brand equity and how a student's culturally-anchored value orientation may shape their perception of a supportive university learning environment. An overview of Chapters 4, 5 and 6 is also presented. Chapter 4 presents the conceptual model measurement and the methodology used in this thesis. Chapter 5 presents the principal findings of

this thesis and Chapter 6 is the discussion, which also addresses the limitations, future research directions and concludes this thesis by summing up the contribution to knowledge in this area.

## **1.2 Context of Thesis**

Gary (2006, p. 134) states that: *The need for well-trained executives worldwide is growing exponentially. And as the MBA becomes a near prerequisite for managerial positions globally, how – and where – executives are educated is changing dramatically.* Maintaining the relevance of postgraduate courses for their potential students is high on the agenda for business school deans in the United States as they struggle to maintain and increase their market position, given the increasing levels of competition (Gary 2006). Postgraduate business students (MBA and other Master of Business specialisations) are also becoming more conscious, discriminatory and aware of the risks in their course and institution selection (Joseph & Joseph 1997). Higher education as a service export has been one of the fastest growing global industries and one from which many industrialised countries, like Australia, have been well positioned to benefit (Orr 2000). However, with the growing global competition in the provision of MBAs and other Master of Business specialisations, the ability of countries like Australia to continue to capture these benefits over the longer term remain unclear.

Given the high percentage of international students to total enrolment in Australia's higher education sector it is not surprising that education is Australia's third largest service export after tourism and transportation, and in 2003 was growing at a faster rate than tourism (an increase by 2.9% in the 2002 financial year) (Way 2003). In the two years ending in 2004 there has been a recorded increase of 29,136 international student enrolments within the Australian higher education sector to 844,480 students (Department of Education 2005). Roach (2003) also states that education exports are forecast to grow from \$4 billion to more than \$38 billion by the year 2025. Though such estimates may be optimistic and the eventual revenue is generated from non-domestic students, they will nevertheless remain important.

Within the globalised higher education arena it has been claimed that there are two types of universities, the elite branded and the non elite branded (Twitchell 2005). Elite branded products or services benefit from top of mind brand associations, images and brand awareness (Keller 1998). Twitchell (2005) adds that there are clearly more universities in the global university sector that do not benefit from elite branding. Most universities have been identified as non elite branded universities, that is they have no or very limited brand identification at a national and international level (Twitchell 2005).

The Australian Vice Chancellors' Committee: the council of Australia's university presidents (2006) has identified a 'new generation universities' category which appears to be a subgroup of what Twitchell (2005) has labelled non elite branded universities. Mahony (1994) describes the creation of Australia's new generation universities as the disbandment of the binary system of universities and colleges of advanced education to a unitary system. Universities in Australia were characteristically different from colleges of advanced education in that universities offered research degrees and were funded for research activity. The colleges of advanced education, however were developed as undergraduate teaching institutions with courses generally at a sub-degree level (Mahony 1994). Over time undergraduate courses at colleges of advanced education became increasingly similar to that of universities' with parallel degrees in: arts; business; education; law; science; and applied sciences. The colleges of advanced education were established from the technical and teachers' colleges, and were increasingly searching for greater equity in funding. This led to the dissolving of the binary system from 1987 onwards (Mahony 1994).

*The former colleges of advanced education were absorbed, usually through institutional amalgamation, into the university system. Australian higher education is now dominated by one type of institution, the generally large, multi-campus metropolitan university, with each, including the new ones, having the same range of functions (Mahony 1994, p. 124).*

Ten universities within Australia that are new generation universities based on the amalgamation of the colleges of advanced education during the late 1980s are: the Australian Catholic University; Central Queensland University; Charles Darwin

University; Edith Cowan University; Southern Cross University; University of Ballarat; University of Canberra; University of the Sunshine Coast; University of Western Sydney; and Victoria University (AVCC 2006). Therefore it may be suggested that the new generation universities in Australia are still developing their brand. This thesis is investigating the antecedents to student-based brand equity within the non elite branded subcategory 'new generation' university's postgraduate business courses.

### **1.2.1 Student Populations and the University Experience**

Australia, like many English speaking countries with developed universities, is still facing the phenomenon of increasing numbers of non-domestic students if the trends of the past decade are to continue. According to the Meeting of OECD Education Ministers held in Athens (2006) the percentage of foreign students to total enrolment in higher education during the year 2003 ranged from one percent to nineteen percent within OECD countries. Australia had the highest percentage of international student enrolments to the total enrolments in 2003 with 19%. Other Anglo-Saxon countries with well established universities had a lower foreign student to total higher education enrolments with New Zealand, the United Kingdom and the United States having an international student to total enrolment percentage of 13, 11 and 3 respectively.

The income generated from international students will be important not only for Australian universities but also for many other universities in countries with a large non-domestic cohort of students. Australia like many other multi-cultural countries has domestic students with a wide cultural heritage that is often similar to non-domestic students. Therefore non-domestic students, often called international students, may share many culturally-anchored values similar to students who are citizens or permanent residents in culturally diverse countries like Australia. This thesis will concentrate on how a student's culturally-anchored value orientation might shape their perception of their course and course related experience. Values are seen as culturally-anchored when a certain configuration of values is more likely to occur in a person from one country, or group of culturally related countries than another.

All students who enter university have knowledge acquisition and learning behaviours. These have been shaped by students' personalities, abilities, and previous educational experiences (Ballard & Clanchy 1997). Ballard and Clanchy (1997) also stated that different cultural traditions embody different attitudes to knowledge that vary significantly among different cultures. Biggs (1996), Chan and Drover (1997), Ballard and Clanchy (1997), and Watkins and Biggs (2001), described international students from Asia as characteristically taking a low profile, rarely asking and answering questions, and rarely making public observations and criticisms. Therefore, do students' culturally-anchored values influence their student course and course related experience and their overall ability to refer others to the university and or willingness to repurchase another course? It is of increasing importance for Australian universities to embrace cultural differences in course design and implementation, as the majority of Australia's international student intake is from Asia where a 'Confucian' heritage is high (Barron & Arcodia 2002).

Morrison (2001, p.617) clearly states that *Being a student can be stressful*. She identifies three key reasons for student stress, 1) Living away from home; 2) Making the transition to adulthood; and 3) Coping with a course of study. There are numerous studies conducted on student stress (see: Lo 2002; Mailandt 1998; Sarafino & Ewing 1999). Gazella, Masten and Stacks (1998) found that students' stress experiences are related to students' learning styles, assessment (testing) and their everyday decision making. These learning and assessment (testing) components highlighted by Gazella, Masten and Stacks (1998) are related to students' course experiences. In other words students' course experiences equate to the academic study components of a course. Course related experiences however, capture the support service areas related with studying a course at university, which includes: interactions between students; and between students and: academic staff; administrative staff; and other specialist (library and information technology) support staff.

As identified above there are a number of problems that international students face when studying abroad and these include social-cultural adjustment, language, and learning/teaching problems due to culture (Biggs, J. 2000). Therefore universities need to develop an understanding of different perceptions of a supportive university learning environment, to ensure students' course and course related experiences

remain satisfactory. This is also of importance to universities as there is evidence that satisfaction with course and course related experiences leads to loyalty, specifically in the form of referral behaviours. Mavondo, Zaman and Abubakar (2000) state that there is a positive relationship between student satisfaction both directly and indirectly with students' referral behaviours towards that course/institution. Athiyaman (2000) also states by satisfying individual customers, it generates positive word of mouth, and this is essential to attract potential customers to the institution. This highlights the importance and implications of the student course and course related experience, in dictating their willingness to refer and their repurchase behaviours. It also raises the question how might a student's culturally-anchored value orientation influence their course and course related experiences and subsequent perceptions of the quality of their course and course related experience, and loyalty to their university.

Harris and Uncles (2000) state that past experiences are positively associated to perceptions of performance and future intentions in the airline industry. They found that situational influences, like word of mouth also affect future intentions, and that future intentions are positively related to reuse which is similar to Athiyaman's (2000) findings on student satisfaction and referral behaviours. Therefore student past experiences may shape perceptions of course quality and satisfaction. These may include an individual's: cultural background and previous educational experiences and how they might shape their perceptions of a supportive university learning environment. Therefore these background (culture and previous educational experiences) and course and course related experiences (a supportive university environment) may also be directly associated with student willingness to refer and repurchase behaviours.

There is also the influence of word of mouth of others as described by both Athiyaman (2000) and Harris and Uncles (2000) which acts as a mediating factor in reuse behaviour in the higher education and airline industries respectively. Thus, positive student course and course related experiences with positive word of mouth from others increase the likelihood of service reuse in the higher education industry. Athiyaman (2000) found that even when a student has a negative course and course related experiences but hears positive word of mouth from others, there is a tendency that such student will also increase the likelihood of service reuse. As expected,

negative student course and course related experiences with negative word of mouth from others will decrease the likelihood of service reuse. Therefore a student's group membership or identification can shape both how they experience a course and interpret that experience. As suggested by Schiffman et al. (2005) and Kotler and Keller (2006) cultural value orientation can influence consumer perceptions. This may also apply within a university setting where different cultural value orientations may affect consumer perceptions and interpretations of these perceptions about their course and course related experience as well as their willingness to repurchase or refer the university to prospective students.

### **1.3 Theoretical Introduction and Key Concept Definition**

Little research has been conducted in Australia and abroad on the antecedents to consumer-based brand equity within universities and even less has focused specifically on postgraduate students. An indicator of this is that an examination of the Academic Search Premier database and the Emerald database covering approximately 8043 and 100 journals respectively in the: social sciences, humanities, education, computer sciences, engineering, physics, chemistry, language and linguistics, arts and literature, medical sciences, ethnic studies, management, marketing, and information management fields as at the middle of August 2006, yielded no results using the following search terms: *consumer-based brand equity and university, universities, higher education, and tertiary education*; and *brand equity and tertiary education*. The search terms: *brand equity and: higher education; university; and universities*, yielding no results in the Emerald database, however in the Academic Search Premier database these terms yielded four results all of which focused on institutional culture and brand equity in the ASHE Higher Education Report of 2005 (see: ASHE 2005a, 2005b, 2005c, 2005d).

The marketing literature identifies a wide range of definitions of brand equity which are examined in greater detail in Chapter 2. However three definitions which are central to the thesis argument are those of Aaker (1991), Biel (1992) and Keller (1993) and will be introduced here. Aaker (1991) defines brand equity as a set of brand assets and liabilities linked to a brand, its name and symbol that add to or

subtract from the value provided by a product or service to a firm and/or to that firm's customers. Biel (1992) defines brand equity in a similar way to Aaker (1991). Biel (1992, p.11) describes brand equity as: *value, usually defined within economic terms, of a brand beyond the physical assets associated with its manufacture or provision.*

The relevance of the concept of brand equity to universities can be clearly seen in the definition offered by Keller (1993). Keller (1993) defines customer or consumer-based brand equity as a *differential effect* between the knowledge of the brand and its market position. Furthermore Keller (1993, p.2) states: *Customer-based brand equity occurs when the consumer is familiar with the brand and holds some favourable, strong and unique brand associations in memory.* This raises the questions: what are the benefits of customer-based brand equity for organisations generally and what are the benefits of customer-based brand equity for universities specifically? Keller (1998, p.53) states that there are many benefits which include:

*greater loyalty; less vulnerability to competitive marketing actions; less vulnerability to marketing crises; larger margins; more inelastic consumer response to price increases; more elastic consumer response to price decreases; greater trade cooperation and support; increased marketing communication effectiveness; possible licensing opportunities; and additional brand extension opportunities.*

Aaker (1991) agrees with Keller (1998) about these benefits of consumer-based brand equity. Aaker (1991) identified five dimensions of consumer-based brand equity and he labelled them: brand loyalty, name awareness, perceived quality, brand associations and other proprietary assets and his model is discussed in greater detail within Chapter 2.

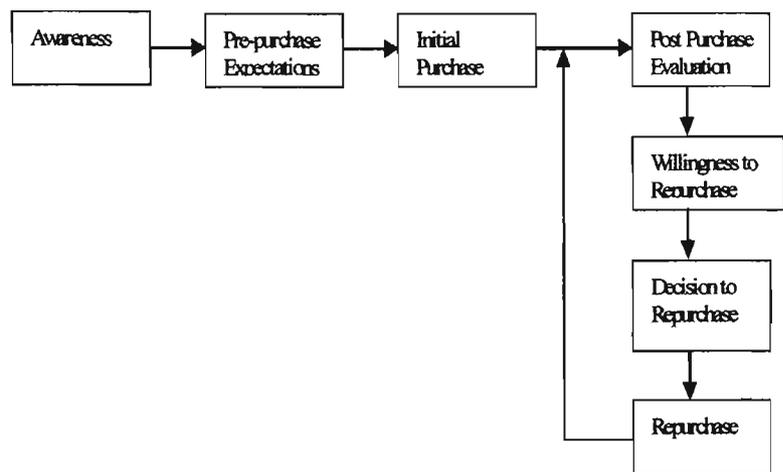
Biel (1992) presented a model of consumer-based brand equity which has two antecedents: brand image factors and non-brand image factors. His brand image concept incorporated three areas: the image of the maker or corporate image, the image of the product, and the image of the user. According to Biel (1992), all other factors that affect consumer-based brand equity that are not related to the image of the maker, product or user are clustered together as non-image factors. Though consumer-based brand equity may have benefits for a firm, and as Keller (1993, p.2) states: *Customer-based brand equity occurs when the consumer is familiar with the brand and holds some favourable, strong and unique brand associations in memory, a*

question rarely examined is: How does familiarity and experience with a brand translate into favourable, strong, and unique brand associations in the consumer's memory? This is a key question examined in this thesis within a university context.

In Chapter 2 it will be argued that important elements of student-based brand equity within universities are brand loyalty and quality (Aaker 1991). Griffin (2002) defines brand loyalty through the purchase cycle. Figure 1.1 depicts the purchase cycle within a higher education setting.

**Figure 1.1: Purchase Cycle in a University Context**

*(Modified from: Griffin 2002, p.18)*



There are similarities between Figure 1.1 above and Aaker's (1991) consumer-based brand equity framework and Biel's (1992) brand image concept. The awareness and pre-purchase components of the purchase cycle in a university context can be seen as equivalent to Aaker's (1991) consumer-based brand equity framework elements: name awareness and brand associations, as well as Biel's (1992) brand image concept. The similarities between these concepts will be elaborated in greater detail in Chapter 2. Within this thesis the awareness and pre-purchase components of Figure 1.1 will be gauged through the existing reputation of a university from a postgraduate business student perspective. In Biel's (1992) model the existing reputation of a university would be considered a brand image factor.

The post-purchase evaluation component of Figure 1.1 above mirrors Aaker's (1991) perceived quality construct which also includes a second dimension of value for cost. In Chapter 2 it will be argued that Aaker's (1991) brand loyalty construct appears to

be very similar to the willingness to repurchase and decision to repurchase components of Griffin's (2002) purchase cycle. Biel's (1992) consumer-based brand equity framework has similarities with the post purchase, willingness to repurchase and decision to repurchase constructs of Griffin's (2002) purchase cycle. Biel (1992) has labelled these constructs brand equity. Justification for this argument will be established in Chapter 2. Therefore the brand image construct of consumer-based brand equity: reputation importance and the brand equity components of brand loyalty and quality will be investigated in this thesis within a postgraduate business student population.

Brand loyalty and quality within a university postgraduate setting can be seen to be formed by students' course and course related experience. This course and course related experience could be conceptualised as non-brand image factors that shape student-based brand equity. If this is the case then brand loyalty and quality may be influenced by differences in students' backgrounds, experiences and expectations. This is consistent with both Aaker's (1991) consumer-based brand equity framework and Griffin's (2002) purchase cycle. Therefore this thesis will build on previous empirical studies of consumer-based brand equity (see: Netemeyer et al. 2004; Washburn & Plank 2002; Yoo & Donthu 2001) and will also examine the relevant importance of a student's culturally-anchored value orientation and how this might shape their perception of a university learning environment as being supportive and whether these factors act as antecedents to consumer-based brand equity within a postgraduate business student population.

Within a university context this thesis will argue that Aaker's (1991) brand loyalty dimension is an appropriate way of gauging students' willingness to refer the course and institution to others. Chapter 2 will provide the rationale for why the quality construct of Aaker's (1991) consumer-based brand equity framework, which contains two subcomponents: perceived quality and value for cost, is an acceptable way to measure the quality of a student's course and course related experience. Perceived quality measures the quality of the university's courses and the consistency of its provision of high quality outcomes compared to other universities' courses. The perceived value for cost component of quality however focuses on the worth of the course in respect to price, time and effort outlaid for the knowledge gained. The brand

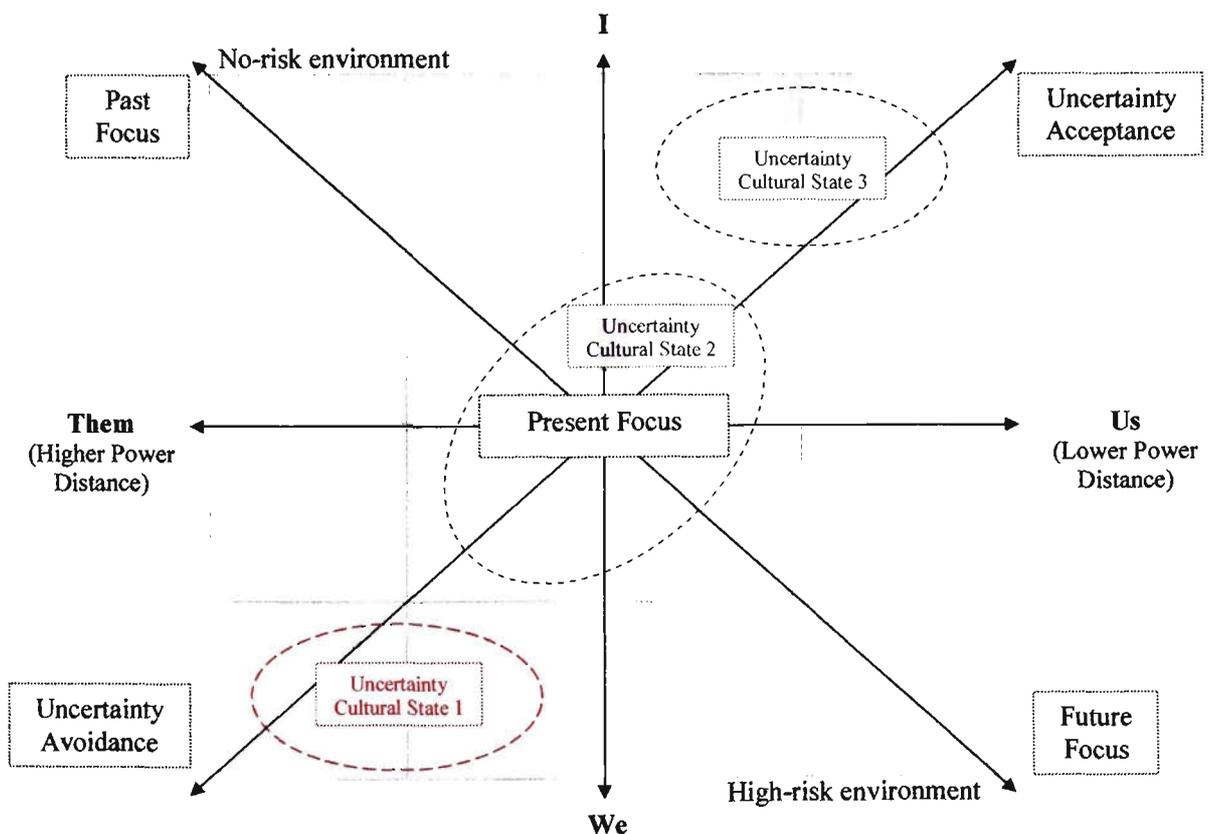
loyalty and quality (perceived quality and value for cost) components of Aaker's (1991) consumer-based brand equity framework will constitute the components of the construct student-based brand equity that is used in this thesis. The theoretical justification for this stance and how this relates to the work of Aaker (1991) and Netemeyer et al. (2004) will be made in Chapter 2.

Kotler and Keller (2006) state that most brands need to be adapted in some form in order to reflect the significant differences in consumer behaviour, brand development, competitive forces, and the legal or political environment in different countries and regions. They (2006, p. 677) add that: *Satisfying different consumer needs and wants can require different marketing programs* and that cultural differences impact on consumer needs and wants. Within marketing it has long been seen that an understanding of a consumers' cultural value orientation is particularly important as this can influence their buying behaviour (Kotler & Keller 2006). Schiffman, Bednall, O'Cass, Paladino and Kanuk (2005) contend that specific cultural values and beliefs affect attitudes and can explain why consumer groups from different cultural value orientations can experience the same situation differently.

A commonly used measure for cultural value orientations is Hofstede's five cultural dimension model (see: Cho et al. 1999; Dorfman & Howell 1988; Goodwin & Goodwin 1999; Gray & Marshall 1998; Harvey, F. 1997; Kuchinke 1999; Lu, Rose & Blodgett 1999; Redpath & Nielsen 1997; Robertson 2000; Tsui & Windsor 2001; Yeh & Lawrence 1995). Hofstede (1991) measured cultural value orientations in terms of five dimensions: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity and short-term/long-term orientation. Power distance measures the equality or inequality within society. The individualism/collectivism dimension has two opposite poles. The first is individualism where the relationship between individuals are loose, with collectivism being its opposite. Masculinity/femininity also has two opposite poles where masculine societies reinforce traditional masculine values and feminine societies are opposite. The short-term/long-term orientation gauges the extent of a culture's focus on short-term or long-term objectives. Uncertainty avoidance gauges the extent that members of a culture feel threatened by unstructured situations. For students the unstructured nature of the university experience can be seen as either a source of excitement or a cause of stress (see:

Brown, B. 1998; Chwee, Jiansan & Perez 1998; Edwards et al. 2001; Gazella, Masten & Stacks 1998; Hudd et al. 2000; Kranz, Cook & Lund 1999; Lindop 1999; Lo 2002).

Within a consumer behaviour perspective, Schiffman et al. (2005) discuss Hofstede's framework as a set of culturally-anchored values which can manifest themselves even at the level of a household. They used Hofstede's individualism/collectivism, power distance, uncertainty avoidance/acceptance and past/future culturally-anchored value dimensions to create a cultural dimensions segment map. In Schiffman et al.'s (2005) cultural dimensions segment map there are four axes. Four of the five Hofstede's dimensions act as axes, these are: individualism/collectivism (I/We) axis; power distance (Us/Them) axis; short-term versus long-term orientation (Past/Future focus) axis; and Uncertainty Avoidance/Acceptance axis. It is this last axis that is represented in Figure 1.2.



**Figure 1.2: Cultural Dimensions Segment Map**

(Adapted from: Schiffman et al. 2005, p.387 & 390)

Schiffman et al. (2005) (as shown in Figure 1.2 above) suggest that there are three explicit states when focusing on the uncertainty avoidance cultural dimension which

may be relevant to our understanding of how culturally-anchored values may affect a university student's perception of their course and course related experience. The first state is high uncertainty avoidance where consumers tend to be very price conscious and are more likely to find uncertain situations stressful. These consumers are more likely to have a no risk environment preference. The second state, according to Schiffman et al. (2005), falls in between the uncertainty avoidance/acceptance continuum. These consumers, they suggest, focus on the present and tend to be more aspirational in nature, and generally have a preference for an environment which has moderate risk. The third state in the cultural segment map framework as seen by Schiffman et al. (2005) are trend developers. This trend developer segment is more likely to be uncertainty accepting. It is this ability amongst postgraduate business students to accept a high risk environment or prefer a low risk one which is of particular interest within this study. This study will explore the degree to which a culturally-anchored value such as uncertainty avoidance shapes postgraduate business students' course and course related experiences and their subsequent perception of the quality of their university experience and levels of loyalty to the university. This is a relevant construct for this study due to the multi-cultural (non-homogeneous) background of both the domestic and international student subpopulations within Australian universities. This thesis will explore not only how students' course and course related experiences shape student-based brand equity but how prior course and course related factors such as perceived reputation of the institution and culturally-anchored values such as uncertainty avoidance may affect this relationship?

## **1.4 Thesis Aims**

The aim of this study is to explore the antecedents to student-based brand equity for universities within a university postgraduate setting. Specifically it will examine the brand loyalty, and the two dimensions of quality: perceived quality and value for cost elements of consumer-based brand equity as perceived by one customer stakeholder group of the university, Master of Business students. These Master of Business students are undertaking their courses within Australia, in an on-campus mode. Four main questions that this thesis addresses are:

1. What are the non-brand image factors (course and course related experiences) that enhance students' brand loyalty, that is, their willingness to refer the course and university to others?
2. Are the non-brand image factors (course and course related experiences) that enhance student-based brand equity (brand loyalty and quality) the same for students with different uncertainty avoidance value orientations?
3. Are the non-brand image factors (course and course related experiences) the same for the loyalty and quality domains of student-based brand equity? and
4. Do non-brand image factors (course and course related experiences) explain variation in the loyalty and quality domains of student-based brand equity even when pre-existing brand image factors like reputation importance are controlled for?

## **1.5 Significance of Research**

Knowledge about how to increase student-based brand equity is becoming increasingly important due to the globalisation of the tertiary education market and its growing importance as an export income generator for the Australian economy (Orr 2000). This research is significant for several reasons. Firstly, it will focus on students' perceptions of brand loyalty and quality (perceived quality and value for cost) through investigating students' willingness to refer and their reuse habits of higher education within Australia. Secondly it will examine the direct and indirect associations between students' culturally-anchored value orientation, and perceptions of a supportive university learning environment which includes: the university's learning community, as well as academic and administrative supports, and their willingness to refer and reuse. This thesis will also examine the direct and indirect effects of students' perceptions of the university's reputation importance on their willingness to refer and reuse. This information can be used to inform the marketing of Australian higher education to different cultural groups.

## **1.6 Thesis Outline**

This thesis is organised as follows: Chapter 2 provides a detailed theoretical introduction to the concept of brand equity and consumer-based brand equity. This chapter also presents the literature supporting the refinement of the consumer-based brand equity construct labelled student-based brand equity. The definition of student-based brand equity and the development of four propositions are also justified in Chapter 2. Chapter 3 extends on Chapter 2 by presenting the literature on the supportive university learning environment and student cultural value orientation. Specifically Chapter 3 presents the literature on the perceived organisational support domain drawing parallels between this literature and a supportive university learning environment. What constitutes a supportive university learning environment is also defined in Chapter 3. Chapter 3 also presents the justification of a further two propositions. Chapter 4 builds on the theoretical chapters and develops the conceptual model. Specifically Chapter 4 presents the justification and selection of scales to measure the student-based brand equity and the supportive university learning environment constructs. The items of all the scales selected are also presented in Chapter 4. Chapter 4 concludes by outlining the methods to be used in this thesis, specifically the sample, the non statistical and the statistical procedures. Chapter 5 presents the results of this thesis. Specifically it examines and reports on the sample overview, the measurement model, the calibration model and the validation model. Chapter 6 presents a detailed rationale on this thesis' findings and future research directions. It discusses the overview of results and the implications of the four research questions addressed in this thesis. Chapter 6 also outlines the limitations and future research directions. Chapter 6 concludes this thesis by summarising the contribution to knowledge in this area.

## Chapter 2: Student-Based Brand Equity

*Brands not only furnish the environment in which I live, but they also enrobe me, and by so doing, help define who I am not: if I were to tell you which brands I avoid, you would learn still more about me...They form a kind of shorthand that makes choice easier. They let me escape from a feature-by-feature analysis of category alternatives, and so, in a world where time is an ever diminishing commodity, brands make it easier to store evaluations (Biel 1992, p.10-11).*

*In educational services...the student's presence and participation are often required in the service delivery process. Therefore, contact elements such as faculty members, other employees and facilities on campus may be ...critical factors which determine the student's perception of ...higher education institutions (Nguyen & LeBlanc 2001, p.309).*

### 2.1 Objectives and Structure of the Chapter

This chapter's focus is upon what constitutes 'Student-Based Brand Equity'. The relevant literature concerning brand equity is reviewed and presented below. This chapter is divided into three broad sections. Section one discusses branding of universities. It presents an overview of elite branded and non elite branded universities as well as the strategies employed by both elite and non elite branded universities. Section two discusses 'what brand equity is' by reviewing the literature broadly. Specifically this section is presented through two subsections. The first addresses the concept of brand equity and the second subsection presents an overview of the literature on consumer-based brand equity. Within this consumer-based brand equity subsection the benefits of consumer-based brand equity are also presented with regards to a university postgraduate setting.

Section three of this chapter discusses Aaker's (1991) Consumer-Based Brand Equity Framework, which comprises of five distinct segments. These are: Brand Loyalty, Brand Awareness, Perceived Quality, Brand Associations and Other Proprietary Brand Assets. Within this section, each of Aaker's (1991) consumer-based brand equity framework elements are discussed in relation to a university context. The discussions presented on each of Aaker's (1991) framework elements establishes whether or not they will be explored within this thesis. This is presented via three

subsections. Subsection one specifically presents two of Aaker's (1991) elements (brand awareness and brand associations) in relation to the brand image and reputation literature in a university context. This is followed by subsection two which presents a detailed discussion on the quality domain. Subsection three discusses the brand loyalty construct.

## **2.2 Branding: Elite and Non Elite Branded Universities**

This section discusses the notion of branding within the higher education sector. Specifically this discussion is presented through three subsections. Subsection one details what makes elite branded universities. It presents the outcomes of three prestigious university listings that avid postgraduate business students are highly likely to consult prior to enrolling in postgraduate business courses. The second subsection outlines the strategy that elite branded universities are highly likely to employ. A detailed rationale is also presented in subsection two to support the strategy outlined. Subsection three presents a detailed overview of non elite branded universities and their strategies. This third subsection also details a strategy that non elite branded universities can employ which may lead them to creating a competitive advantage.

### **2.2.1 Elite Branded Universities**

Universities that appear in the 2006 Academic Ranking of World Universities (ADRW 2006), MBA business schools that appear in the Financial Times (2006) top 100 MBA rankings, and Australian business schools that appear in the Australian Financial Review's (2005) Boss Survey band 1 classification are examples of universities that are benefiting from top of mind brand associations, images and brand awareness. Therefore these universities can be considered elite branded. Table 2.1 below presents the 2006 Academic Ranking of World Universities top 500 methodological selection criteria. As illustrated below in Table 2.1 the 2006 Academic Ranking of World Universities has four criteria: quality of education, quality of faculty, research output and institution size.

**Table 2.1: 2006 Academic Ranking Of World Universities Criteria**

Criteria	Indicators	Weight
Quality of Education	Alumni of an institution winning Nobel Prizes and Field Medals	10%
Quality of Faculty	Staff of institution winning Nobel Prizes and Field Medals	20%
	Highly cited researchers in 21 broad subject categories	20%
Research Output	Articles published in Nature and Science	20%
	Articles in Science Citation Index-expanded, Social Science Citation Index	20%
Size of Institution	Academic performance with respect to the size of an institution	10%

(Source: ADRW 2006)

Table 2.2 below presents the top 20 universities on the 2006 Academic Ranking of World Universities top 500 list, as well as the rankings of the Australian and New Zealand universities. The majority of the universities that have been ranked in the top 20 are prestigious American universities. Prestigious British universities are also evident in the top 20 and one prestigious university from the Asia Pacific region. These universities clearly benefit from what Aaker (1991) describes as name and symbol awareness which leads to enhancing customer value nationally and internationally. Other universities that appear on the top 500 list also benefit from name and symbol awareness identified by Aaker (1991). The leading universities within Australia (the group of eight: The University of Adelaide, The Australian National University, The University of Melbourne, Monash University, The University of New South Wales, The University of Queensland, The University of Sydney, and The University of Western Australia) (GO8 2006), all appear in the 2006 Academic Ranking of World Universities top 500 list and have had the time and resources to establish themselves as elite branded universities within Australia. Other universities listed in the top 500 are also more likely to have many brand image factor associations linked to the university's name and symbol. Biel's (1992) framework suggests that for elite branded products or services there are enhanced associations linked to the brand through the image of the organisation, the image of the product and user. Therefore the universities listed in the top 500 are likely to have many image associations of the university itself, as well as of its courses and what it means

to study at the university. These top 500 universities can be more important in international student selection as it is a way to reduce the uncertainty of the course selection process. It is also of importance to domestic student cohorts from a belongingness perspective, that is, identifying with the prestige in studying at the university and being a graduate from that institution. Universities that do not appear in the top 500 listing are less likely to have as many brand image factors (university image, course image and student/alumni image) associated to its name or symbol.

**Table 2.2: 2006 Academic Ranking Of World Universities Listing**

World Rank	Institution		World Rank	Institution	
1	Harvard University	U S A	54	Australian National University	A U S
2	University of Cambridge	U K	78	University of Melbourne	
3	Stanford University	U S A	102-150	University of Queensland	
4	University of California			University of Sydney	
5	Massachusetts Institute of Technology			University of Western Australia	
6	California Institute of Technology		151-200	University of New South Wales	
7	Columbia University		201-300	Macquarie University	
8	Princeton University	Monash University			
9	University of Chicago	University of Adelaide			
10	University of Oxford	U K		University of Auckland	
11	Yale University			University of Otago	
12	Cornell University	U S A	301-400	La Trobe University	A U S
13	University of California – San Diego			University of Newcastle	
14	University of California – Los Angeles		401-500	Murdoch University	
15	University of Pennsylvania			University of New England	
16	University of Wisconsin			University of Tasmania	
17	University of Washington			Flinders University South Australia	
18	University of California – San Francisco			James Cook University	
19	Tokyo University	J A P		Massey University	N Z
20	Johns Hopkins University	U S A		University of Canterbury	
				Victoria University Wellington	

(Source: ADRW 2006)

The Financial Times MBA 2006 top 100 business schools, as outlined in Table 2.3 below also has its 20 criteria focusing on career impact measures such as salaries of participants and percentage salary increases.

**Table 2.3: 2006 Financial Times Global MBA Rankings Criteria**

Criteria	Descriptors	Weight
Weighted Salary	The average 'salary today' with adjustments for salary variations between industry sectors. The figure is a weighted average of salaries three years after graduation from the 2004, 2005 and 2006 surveys.	20%
Salary Percentage Increase	The percentage increase in salary from the beginning of the MBA to three years after graduation. The figure is a weighted average of the increases from the 2004, 2005 and 2006 surveys.	20%
Value for Money	The value for money criterion is a short-term indicator calculated using the salary earned by alumni three years after graduation and course costs, including the opportunity cost of not working for the duration of the course.	3%
Career Progress	The degree to which alumni have moved up the career ladder three years after graduating. Progression is measured through changes in level of seniority and the size of company in which they are employed. The data in this field has been combined with career progress results from the MBA 2005 and MBA 2004 surveys.	3%
Aims Achieved	The extent to which alumni fulfilled their goals or reasons for doing an MBA. This is measured as a percentage of total returns for a school.	3%
Placement Success	The percentage of alumni, who graduated in 2002, that gained employment with the help of career advice. The data is presented as a rank. The figure behind the rank is a weighted average of the placement success results from MBA 2004, 2005 and 2006.	2%
Alumni Recommendation	Alumni of 2002 were asked to name three business schools from which they would recruit MBA graduates. The figure represents the number of votes received by each school. The data is a weighted average from the 2004, 2005 and 2006 surveys and is presented as a rank.	2%
Employed at three months	The percentage of the most recent graduating class that had gained employment within three months.	2%
Women Faculty	Percentage of female faculty.	2%
Women Students	Percentage of female students.	2%
Women Board	Female members of the advisory board, as a percentage.	1%
International Faculty	The percentage of faculty whose nationality differs from their country of employment.	4%
International Students	The percentage of international students.	4%
International Board	The percentage of the board whose nationality differs from the country in which the business school is situated.	2%
International Mobility	A rating system that measures the degree of international mobility based on the employment movements of alumni between graduation and today.	6%
International Experience	Weighted average of four criteria that measure international exposure during the course.	2%
Languages	Number of additional languages required on completion of the MBA. Where a proportion of students require a further language due to an additional diploma, that figure is included in the calculations but not presented in the final table.	2%
Faculty with Doctorates	Percentage of faculty with a doctoral degree.	5%
FT Doctoral Rating	Number of doctoral graduates from the last three academic years with additional weighting for those graduates taking up a faculty position at one of the top 50 schools in MBA 2005.	5%
FT Research Rating	A rating of faculty publications in 40 international academic and practitioner journals. Points are accrued by the business school at which the author is presently employed. Adjustment is made for faculty size.	10%

(Source: FT 2006)

The top 20 business schools identified in the Financial Times MBA 2006 top 100 business schools and the Australian business schools listed are presented in Table 2.4. Thirteen of the prestigious, elite branded business schools that are ranked in the top 20 of the global MBA programs are American. There is also representation from two elite branded British business schools, two elite branded Spanish business schools and one elite branded business school from: France/Singapore; Switzerland; and Canada respectively in the top 20. Two elite branded Australian business schools appear in the third quarter of this listing, Melbourne Business School (ranked 69) and the Australian Graduate School of Management (ranked 75). These business schools also clearly benefit from name and symbol awareness which is also highly likely to lead to customer value enhancement (Aaker 1991), and may be more likely to have many brand image factors (university image, course image and student/alumni image) (Biel 1992), associated with it than business schools that do not appear on this listing. Both international and domestic students may refer to the global MBA top 100 listing to reduce the uncertainty in university selection. This may be more prominent with international students and their selection process.

**Table 2.4: 2006 Financial Times Global MBA Rankings List**

<b>World Rank</b>	<b>School Name</b>	
1	University of Pennsylvania: Wharton	USA
2	Harvard Business School	USA
3	Stanford University GSB	USA
4	Columbia Business School	USA
5	London Business School	UK
6	University of Chicago GSB	USA
7	New York University: Stern	USA
8	Insead	FRA/SIN
9	Dartmouth College: Tuck	USA
10	MIT: Sloan	USA
11	Yale School of Management	USA
12	Instituto de Empresa	ESP
13	Iese Business School	ESP
14	IMD	SUI
15	University of Michigan: Ross	USA
16	UC Berkeley: Haas	USA
17	Northwestern University: Kellogg	USA
18	York University: Schulich	CAN
19	UCLA: Anderson	USA
20	University of Oxford: Said	UK
69	Melbourne Business School	AUS
75	Australian Graduate School of Management	AUS

*(Source: FT 2006)*

The Australian Financial Review's 2005 Boss Survey had fewer criteria than the 20 criteria used by the Financial Times. The Boss Survey 2005 used 11 criteria: first year of MBA offered, tuition fees for domestic full time students, average class size, the percentage of teachers with PhD (full time academics), the percentage of all teachers with PhD, the average years in paid work (students), average (in years) management experience (students), the percentage of overseas students, the percentage of female students, the percentage of offers accepted and the percentage of students with Bachelor and above qualifications. As illustrated in Table 2.5 below Australian business schools were classified into four bands.

The Australian business schools identified in the band 1 classification are considered to be the elite branded business schools/universities. Universities that appear in

classification band 2 are considered to have some brand identification and the universities that appear in classification bands 3 and 4 are the non elite branded business schools/universities. As highlighted in Table 2.5 below there appears to be a significant difference in the fees charged between the elite branded universities (band 1 classification) and the non elite branded universities (bands 3 and 4). Within the non elite branded (bands 3 and 4) categorisation of Australian MBA's, there are two new generation universities that also appear. As discussed earlier in Chapter 1, these new generation universities have only been operating in their current form since the late 1980s (see: AVCC 2006; Mahony 1994) and are therefore still in the process of developing their brand. The elite branded universities are charging almost double the tuition fees of the non elite branded universities and its new generation universities subgroup. The price difference between elite branded and non elite branded universities may also impact on students who are price conscious consumers. This raises the question are some universities better positioned and therefore more likely to benefit from the globalisation of higher education?



## **2.2.2 Elite Branded Universities' Strategy**

Elite branded universities like those that appear in the: 2006 Academic Ranking of World Universities Listing (see Table 2.2); the 2006 Financial Times Global MBA Rankings List (see Table 2.4); and the 2005 Australian Financial Review's Boss MBA Survey Classifications (see Table 2.5) are examples of universities that have many brand image factors as discussed earlier. The criteria used within the: 2006 Academic Ranking of World Universities Listing (see Table 2.1); the 2006 Financial Times Global MBA Rankings List (see Table 2.3); and the 2005 Australian Financial Review's Boss MBA Survey Classifications (see Table 2.5) suggests that elite branded universities seem to employ common strategies.

Treacy and Wiersema (1993; 1995; 1997) have conceptualised a value disciplines model, where they suggest that there are three generic value disciplines: operational excellence; product leadership; and customer intimacy; which provide guidelines for organisations to remain competitive within their industries. Treacy and Wiersema (1993; 1995; 1997) have described the operational excellence discipline as excellent operations and execution. This is characterised by: providing reasonable quality at a very low price; a focus on efficiency; no frills; and quantity is important. It has been noted that most large global organisations have adopted this discipline. The product leadership discipline has been discussed by Treacy and Wiersema (1993; 1995; 1997) as having very strong: innovation; branding; and are dynamic. This discipline's focus is on: development; innovation; design; time to market; and high margins within the short run. The organisations that predominantly excel in this discipline have flexible cultures. The final value discipline within Treacy and Wiersema's (1993; 1995; 1997) value disciplines model is customer intimacy. They describe customer intimacy as organisations excelling in customer attention and customer service. This is where organisations tailor their products and services to individual or almost individual customers. In other words there is a large variation in the organisation's product assortments. The customer intimacy discipline focuses on: delivering products and services in a timely manner that exceeds customer expectations; life time value concepts; reliability; and being close to the customer.

Treacy and Wiersema (1993; 1995; 1997) also state that any organisation must choose to excel in one value discipline where it aims to be the best. However they also note that this doesn't mean that the other two value disciplines can be ignored, but rather the organisation should aim to be okay in these other two disciplines. Wolfe (2005) had defined Treacy and Wiersema's (1993; 1995; 1997) value disciplines model within a university context. He (2005, p. 1) had described operational excellence in a university setting as: *Offering low cost, low-hassle learning products/services, keeping the experience simple, convenient and hassle-free.* Wolfe (2005, p. 1) defines the product/service leadership discipline as: *Offering the best, most innovative learning products by becoming a product leader. Choosing this driver means learning innovation will be an ongoing priority with a strong push toward cutting-edge learning products and services.* The customer intimacy discipline within a university setting according to Wolfe (2005, p. 1) is: *Supporting the establishment of long-term internal customer relationships in order to provide learning solutions tailored to specific needs. With this choice, the internal customer becomes the key driver of the learning function...offering custom solutions, rather than simply supplying an off-the-shelf product or service.*

Using the elite branded university criteria of the: 2006 Academic Ranking of World Universities Listing (see Table 2.1); the 2006 Financial Times Global MBA Rankings List (see Table 2.3); and the 2005 Australian Financial Review's Boss MBA Survey Classifications (see Table 2.5) appear to align with Treacy and Wiersema's (1993; 1995; 1997) product leadership discipline. In other words the product leadership discipline seems to be the value discipline chosen for elite branded universities to excel in. This also suggests that elite branded universities are okay at the operational excellence and customer intimacy disciplines.

### **2.2.3 Non Elite Branded Universities**

Twitchell (2005) claims that there are many more universities within the globalised higher education sector that are non elite branded. As discussed earlier in this chapter and in Chapter 1, within Australia a subgroup of non elite branded universities are new generation universities (see: AVCC 2006; Mahony 1994). These universities have been operating under their current name for less than two decades and

undoubtedly are still developing their brand. In other words there are more universities that do not have any or very limited brand associations at a national and international level in comparison to the number of elite branded universities. These non elite branded universities do not appear in prestigious academic listings like the 2006 Academic Ranking of World Universities, the 2006 Financial Times Global MBA Rankings or in the Band 1 Classification in the 2005 Australian Financial Review's Boss MBA Survey. It is clear that non elite branded universities are not excelling in what Treacy and Wiersema (1993; 1995; 1997) have called the product/service leadership discipline. These non elite branded universities are not excelling at: *Offering the best, most innovative learning products by becoming a product leader. Choosing this driver means learning innovation will be an ongoing priority with a strong push toward cutting-edge learning products and services.* (Wolfe 2005, p. 1), as they do not appear on elite listings.

This suggests that non elite branded universities are simply okay in regards to the product/service leadership discipline to have remained in the highly competitive globalised higher education sector. Similarly, these non elite branded universities to have remained in the globalised university arena are deemed to be also okay in regards to the operational excellence discipline: *Offering low cost, low-hassle learning products/services, keeping the experience simple, convenient and hassle-free* (Wolfe 2005, p. 1). What is unclear within non elite branded universities is whether or not they excel in what Treacy and Wiersema (1993; 1995; 1997) have identified as the customer intimacy discipline: *Supporting the establishment of long-term internal customer relationships in order to provide learning solutions tailored to specific needs. With this choice, the internal customer becomes the key driver of the learning function...offering custom solutions, rather than simply supplying an off-the-shelf product or service* (Wolfe 2005, p. 1). Clearly non elite branded universities may benefit by excelling in a customer intimacy discipline perspective.

Treacy and Wiersema (1993; 1995) state that there are four critical points in being successful with a customer intimacy discipline perspective: understanding customer needs and expectations; decision making powers need to be decentralised to front-line employees; management needs to focus on niche clientele; and the organisation needs to embrace a culture of specific rather than general solutions to create lasting client

relationships. The customer intimacy discipline is also consistent with what Kotler and Keller (2006) describe as the modern customer oriented organisation where managers and organisation staff regardless of their status must be personally involved in knowing, meeting and serving customer needs. Therefore in a university context, non elite branded universities and its new generation university subgroup may need to focus on creating long term relationships with their students. This in turn may increase the student loyalty effect towards their university. In other words the customer intimacy discipline discussed by Treacy and Wiersema (1993; 1995) can influence the perceptions students have about their course and course related experiences. These experiences can be gauged through Reichheld's (2006) net promoter score which is able to identify the percentage of promoters an organisation has.

In a university context this can be conceptualised as the percentage of students who are willing to engage in positive word of mouth recommendations about the university, its courses and course related experiences. For universities to create long term meaningful relationships with students they need to understand their students' needs and expectations and create individual solutions for their student population. By doing so this in turn is highly likely to enhance the university's net promoter scores, which in turn is highly likely to result in many, many students engaging in positive word of mouth recommendations about the university and its course and course related experiences. This in turn may also lead to a competitive advantage for non elite branded universities and the new generation university subgroup, which may provide a more effective way for them to compete against elite branded universities in the highly competitive globalised higher education sector.

## **2.3 Overview of Brand Equity**

Kotler and Keller (2006, p.276) define the concept of brand equity as *...the added value endowed to products and services*. This endowment of value may be perceived from a consumer or an organisational perspective. The added value from a consumer's viewpoint may include how they feel, think or act with respect to the brand, where added value from an organisation's perspective may be enhanced market

share and profitability that the brand commands and the price premium that can be asked for the product or service. *Brand equity is an important and intangible asset that has psychological and financial value to the firm* (Kotler & Keller 2006, p. 276).

Kotler and Keller (2006) have noted that various perspectives to study brand equity has been used by marketers and researchers. A commonly used categorisation is the consumer and organisation perspectives. Within the organisation perspective, one cluster of research focuses on the key benefits of brand equity for the organisation. Included in the long list of benefits of brand equity for organisations are: improved perceptions of product performance, greater loyalty (both customers and channel partners), less vulnerability to competitive marketing actions, less vulnerability to marketing crises, larger profit margins, more inelastic consumer response to price increases, more elastic consumer response to price decreases, greater trade cooperation and support, increased marketing communications effectiveness, possible licensing opportunities, and additional brand extension opportunities. This thesis does not directly examine these benefits of brand equity within a university context.

In contrast to the organisation perspective, the underlying principle of the consumer-based brand equity approach is that: *...the power of the brand lies in what consumers have seen, read, heard, learned, thought, and felt about the brand over time. In other words, the power of a brand lies in the minds of existing or potential customers and what they have experienced directly or indirectly about the brand* (Kotler & Keller 2006, p. 276). This is the focus of this thesis. Positive customer-based brand equity means that when a product is marketed customers will react more favourably toward the product. Within a university context this means when information about a course reaches a student this is more likely to be favourably received and responded to due to prior positive associations about the brand. Customer-based brand equity can therefore be seen as the differential effect of knowledge of the brand on a customer's response to the marketing of that brand (Keller 1993; 1998).

This consumer-based approach to brand equity has three key ingredients according to Kotler and Keller (2006) and it is these ingredients that will be investigated in detail within this thesis. The first is consumer response differences, second is consumers brand knowledge, and third, is consumers' differential responses. The first key

ingredient according to Kotler and Keller (2006) is that brand equity arises from differences in consumer response and if there is no differences then brand named product or service can essentially be seen as a commodity and treated as a generic version of the product. Within a university context this would mean that an MBA program from one university is simply seen as a generic substitute for an MBA program from another university and the competitive criteria that leads to selection of one over the other is price.

The second key ingredient is that there are differences in consumers' response as a consequence of the consumers' knowledge about the brand. This brand knowledge consists of all the images, experiences thoughts and feelings that have become associated with a brand. This brand knowledge can enhance or decrease brand equity. Within a marketing perspective brands aim to create a strong, favourable and unique brand association with customers so as to generate loyalty. One of the key areas being investigated in this thesis is the differences in postgraduate business students' responses towards their university course. University postgraduate students brand knowledge which includes their: thoughts; feelings; images; beliefs; and their associations about their experiences. It will be argued that postgraduate business students' course experiences will create differential responses which are reflected in their perceptions, preferences and behaviours related to the marketing of the brand. One example of this is their willingness to refer the university and its courses to others.

The final key ingredient according to Kotler and Keller (2006), is the differential responses by consumers that makes up the brand equity and this is reflected in the perceptions of such things as quality and value for cost as well as their preferences and behaviour, related to all aspects of the marketing of the brand. Within a university setting, this is reflected in students' belief that their course and course related experiences are perceived as ones of high quality that also provided good value for money. As Kotler and Keller (2006, p. 277) state: *Customer knowledge is what drives the differences that manifest themselves in brand equity.*

This consumer-based approach of brand equity has been extensively researched (see: Aaker 1990, 1991, 1996b, 1996a; Aaker & Keller 1990; Ambler 1992; Brown, G.

1992; de Chernatony & McDonald 1992; Doyle 1994; Keller 1993, 1998). Kim and Kim (2004) state that strong brands aid customers in visualising and having an improved understanding of intangible products and services. An improved understanding of the intangible products and services through strong brand aids can also be seen to reduce customers' perceived monetary, social or safety risks when buying services which are difficult to evaluate before purchase. This may also be the case when selecting a postgraduate business degree. Wood (2000) adds to this by stating that brands and their associations in consumers' minds are often the primary points of differentiation between competitors and therefore brand management should be approached strategically. Strong brands reduce the perceived risk in purchasing intangible products/services (Kotler & Keller 2006) and this may be of particular importance to the university sector as the brand image of postgraduate university degrees are an intangible product and service. A strong university brand image in turn may benefit universities by increasing potential consumer confidence in the university and the courses it provides.

### **2.3.1 Customer-Based Brand Equity**

*Customer-based brand equity occurs when the consumer is familiar with the brand and holds some favourable, strong and unique brand associations in memory (Keller 1993, p.2).*

Keller (1993; 1998) describes customer-based brand equity as a *differential effect* between brand knowledge and market positioning of the brand. He emphasises that the key to creating brand equity is through brand knowledge. Dawar (1999) discusses customer-based brand equity as the psychological associations between brand knowledge and consumer responses to marketing of the brand. Kim et al. (2003) state that when consumer-based brand equity is operationalised it falls into two categories: consumer perceptions (brand awareness, brand associations and perceived quality) and consumer behaviour (brand loyalty, and willingness to pay a high price).

Brand awareness and brand image are usually seen as components of brand knowledge (see: Arpan, Raney & Zivnuska 2003; Ataman & Ulengin 2003; Belen del Rio, Vazquez & Iglesias 2001; Biel 1992; Dawar 1999; Dobni & Zinkhan 1990; Keller 1993, 1998). Aaker (1991, p.61) defines brand awareness as: *the ability of a*

*potential buyer to recognise or recall that a brand is a member of a certain product category. A link between product class and brand is involved.* He also describes brand awareness as a continuum ranging from uncertainty of brand recognition to certainty, being the only one within the product class. Brand awareness as a component of consumer-based brand equity depends on the context and level of awareness. Aaker (1991), states that there are four levels of brand awareness, as depicted in Figure 2.1.



**Figure 2.1: Awareness Pyramid**  
(Source: Aaker 1991, p.62)

The lowest category of brand awareness according to Aaker (1991, p.62) is based upon the aided recall test. In practice this is often identified in a survey of respondents who are asked to identify what brands they have heard before from a list of brands within a product category. Thus the brand recognition stage establishes minimal brand awareness. The next category level is brand recall (see Figure 2.1). This is usually identified by asking consumers to name the brand in a product category. Consumers are not prompted in any way and responses are unaided. This stage is more difficult to achieve in consumers than recognition and is an indicator of a stronger brand positioning (Aaker 1991). Aaker (1991, p.62) also states that:

*The first named brand in unaided recall... has achieved top of mind awareness, a special position. In a very real sense, it is ahead of the other brands in a person's mind.*

Keller (1993; 1998) describes brand awareness in a similar way to Aaker (1991). Keller (1993; 1998) discusses the brand awareness concept as the ease of recalling or recognising a brand in different situations. He adds that brand awareness comprises of

brand recall and brand recognition which is also consistent with Aaker (1991). Brand recall, occurs when consumers retrieve the brand when given a cue like product category. Brand recognition can be described as when consumers are able to confirm prior exposure to the brand (Dawar 1999; Keller 1993, 1998). Aaker (1991) also mentions that an organisation with a dominant brand creates a strong competitive advantage for the organisation. Examples of such brands can include Band-Aid adhesive bandages, Kleenex Tissues, Philadelphia Cream Cheese and Vegemite. In many decisions made by customers it means that only the dominant brand will be considered. In a university setting only a select few universities may benefit from top of mind awareness as identified in Aaker's (1991) awareness pyramid. Prestigious universities like those listed in the top 500 Academic Ranking of World Universities Listing, the top 100 global business school rankings, and the Australian MBA classifications (see Tables 1.2, 1.4 and 1.5) are examples of Universities that may benefit from top of mind awareness. While different levels of brand awareness as defined by Aaker (1991) are not being identified within this study, the brand image factor of university reputation importance which indirectly measures higher levels of brand awareness among students, is.

Aaker (1991) also implicitly raises the importance of brand associations in relation to the brand awareness and brand image literature. This connection is briefly outlined below. Further theoretical clarification and justification for a university setting is presented in section 2.3.1 of this chapter. Aaker (1991, p.109) depicts a brand association as *anything linked in memory to a brand*. He also claims that this association has a level of strength, therefore the greater the experiences or exposure to a brand the stronger the link. This link will gain greater strength when supported by further links. An example that Aaker (1991, p.109) uses to highlight this association is:

*... if the link between, kids and McDonald's were based only on some ads showing kids at McDonald's, it would be weaker than if the link involved a complex mental network involving birthday-party experiences at McDonald's, Ronald McDonald, McDonald's games, and McDonald's dolls and toys.*

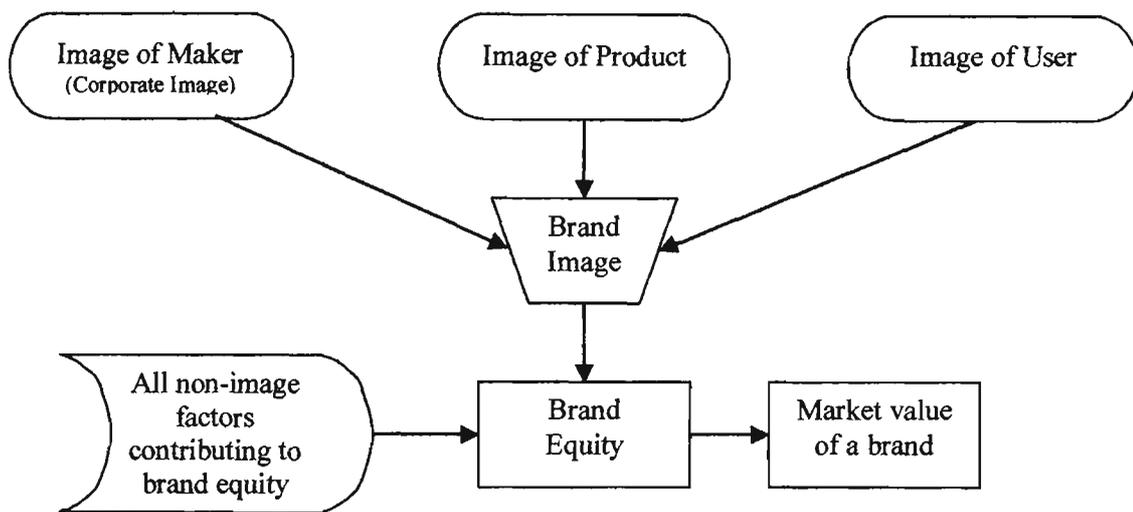
Using Aaker's (1991, p.109) definition of brand associations: *...anything linked in memory to a brand*, as a guide for the university sector, then links need to be made

between the university and its many associations like: its courses; its industry accreditations; professional associations; employability; alumni functions etc. As suggested by Aaker (1991) the more links developed the greater the strength these associations become.

Keller (1993; 1998) extends on Aaker's (1991) description of brand associations by stating that brand associations form three major categories and these are: attributes, benefits and attitudes. Belen del Rio, Vazquez and Iglesias (2001) describe attitudes as descriptive features that characterise a brand. This includes consumer perceptions about what a brand is or has, and what is involved with its purchase or consumption. They present benefits as the personal values consumers attach to the brand attributes, in other words what can the brand do for them? Brand attitudes are the overall evaluations of the brand and brand image. Positive evaluations of the brand and its image results in greater brand value (Belen del Rio, Vazquez & Iglesias 2001).

James (2005) discusses brand associations in a similar way to Aaker (1991), Keller (1993; 1998) and Belen del Rio, Vazquez and Iglesias (2001). James (2005) states that brand associations and their meaning are derived by what consumers' perceive to be the associations they make with the brand. Subsequently these associations provide cues for information retrieval (see: James, D. 2005; Janiszewski & Van Osselaer 2000; Van Osselaer & Janiszewski 2001). Brand associations have been described as anything about the likeableness of a brand which then helps in forming that brand's image (see: Aaker 1990; Biel 1991; James, D. 2005; Keller 1993). James (2005) states that strong brand associations can affect usage situations. Biel (1991) further states that brand image comprises of the attributes and associations that consumers' connect to a brand can be specific tangible and functional attributes of the brand, or soft emotional brand attributes like trustworthiness. In a university setting, brand image factors would comprise of students' perceptions of the attributes and associations they connect with the university. These factors may be intangible and functional attributes like: skill development and employability; as well as the emotional link of trustworthiness of service quality provision as well as being a graduate from the institution, and a part of the bigger tradition.

Therefore it can be suggested that consumers' perceptions about a brand and how they associate with it depicts brand image (Biel 1992; Dawar 1999; Keller 1993, 1998; Kotler 1991; Kotler & Keller 2006). Attitudes towards the brand and perceptions of quality are two common traits associated with brand image by consumers. Some examples cited by Keller (1993; 1998) and Dawar (1999) include McDonalds for *value*, *Ronald McDonald House* and *fast food*; and Coca Cola for *taste* and *availability*. Biel (1992) claims that the concept of brand image consists of three elements. These are provider image, user image and product/service image. He summarises the concept diagrammatically, see Figure 2.2.



**Figure 2.2: Brand Image**  
(Source: Biel 1992, p.17)

As illustrated in Figure 2.2 above, Biel (1992) highlights that there are an array of attributes that influence brand image including: corporate image, product image and user image. Some examples include: personality, leadership, character, service, technology, lifestyle, and occupation. He also states that other significant impacts upon brand equity are the image of competing brands and market growth. Graeff (1996) and Hogg, Cox and Keeling (2000) describe the impact of brand image in a similar way to Biel (1991; 1992), Kotler (1991), Keller (1993; 1998), Dawar (1999) and Kotler and Keller (2006) through consumer identification. This involves personal identification, where consumers can identify themselves with some brands and therefore develop affinity towards them. Therefore it can be suggested that people can enrich their self image through the images of the brands they buy and use (Belen del Rio, Vazquez & Iglesias 2001; Graeff 1996; Hogg, Cox & Keeling 2000). Therefore postgraduate business students as the consumer group of interest within this

thesis are likely to identify themselves with the university they select or attend and develop an affinity through identification with the university and its courses. The images of the university as a brand can also be used by students to enrich their self image for example the student may start calling themselves “a Cambridge University man or woman”.

Andreassen and Lindestad (1998) present another view of brand image which shares an underlying similarity with Biel (1991; 1992), Kotler (1991), Keller (1993; 1998), Dawar (1999) and Kotler and Keller (2006). Andreassen and Lindestad (1998, p. 9) state that organisation image functions as: *...a filter in the perception of quality, value, satisfaction and as a simplification of the decision process when consumers choose where to purchase...* Therefore students’ perceptions of a university’s image may be used as a filter about the quality and value of their courses. This in turn may be used to simplify the university and course selection process.

Andreassen and Lindestad (1998) also found that customer retention is influenced by corporate image and customer satisfaction. In other words customer loyalty is affected by the consumer’s perception of the organisation’s image and their satisfaction with the product/service mix received from the organisation. In a university context student loyalty may be driven by students’ perceptions of the university’s image as well as their satisfaction with their course and course related experiences. This assertion is one that is being examined within this thesis. A relationship was also found between corporate image and perceptions of quality by Andreassen and Lindestad (1998). Another interesting finding was that consumer perceptions of quality influenced their perceptions of value. Therefore if Andreassen and Lindestad’s (1998) assertions are correct in a university context, then students’ perceptions of quality are influenced by the university’s image, and that students’ perceptions of quality in turn influence their beliefs about value received for the cost outlaid. Andreassen and Lindestad (1998) also claim that for complex and infrequently purchased services, corporate image was the main predictor of customer loyalty. As the purchase of a postgraduate business degree is an infrequent purchase by students, then as suggested by Andreassen and Lindestad (1998) the main predictor of student loyalty towards the university would be the image of the university. Andreassen and Lindestad’s (1998) assertions are also consistent with Kotler (1991),

and Kotler and Keller (2006), where they suggest that a direct positive effect exists between brand image and sales.

Belen del Rio, Vazquez and Iglesias (2001) has described brand image in a similar way to Biel (1992), Kotler (1991), Keller (1993; 1998), Dawar (1999) and Kotler and Keller (2006) who have described the concept as a type of consumer identification. Belen del Rio, Vazquez and Iglesias (2001, p. 411) define brand image as: *...perceptions about a brand as reflected by the cluster of associations that consumers connect to the brand name in memory.* This is also consistent with Biel's (1992) brand image factors outlined in Figure 2.2. Therefore it can be stated that students' perception about a university's brand image are influenced by the associations they connect with the university. As illustrated by Biel (1992) in Figure 2.2 these associations manifest themselves in students' perceptions of the university's corporate image; the image of the courses they provide; and the image of themselves as students studying a course within the university. Ataman and Ulengin (2003) agree with Biel's (1992) brand image factor descriptions. Ataman and Ulengin (2003) have described brand image factors as a combination of the following attributes: its name, its main physical features and appearance (packaging and logo), and its main function. The attributes outlined by Ataman and Ulengin (2003) are related to two of the three brand image factor categories presented by Biel (1992) in Figure 2.2. The first is the corporate image category that Ataman and Ulengin (2003) call 'its name'; the other brand image category that Ataman and Ulengin (2003) describes is Biel's (1992) product image. Ataman and Ulengin (2003) call product image factors physical features and product function descriptors. They also explicitly claim that changes in perception in any brand image factors may lead to changes in brand preference.

This thesis is examining both brand image factors and non-brand image factors as components of student-based brand equity. This is also consistent with Figure 2.2. The brand image factor being investigated within this thesis is students' importance ratings of the university's image in course selection. This incorporates students' perceptions of all of the brand image categories raised by Biel (1992): corporate image, product image and user image. Students' perceptions of these brand image components will also be a reflection of the associations that students connect to the university and its courses and how they identify with the university. This is consistent

with previous research (see: Belen del Rio, Vazquez & Iglesias 2001; Biel 1992; Dawar 1999; Keller 1993, 1998; Kotler 1991; Kotler & Keller 2006). This thesis is also examining the non-brand image factors of student-based brand equity which is consistent with Figure 2.2, Biel's (1992) brand image framework of brand equity. The non-brand image factors being investigated in this study include student uncertainty avoidance culturally-anchored value orientation and its effect on course and course related experiences.

## **2.4 Aaker's "Consumer-Based" Brand Equity Framework**

Even with a consumer-based approach to brand equity, there is still some confusion within the literature domain with some frameworks of consumer-based brand equity being labelled 'brand equity', even though the frameworks are driven from a consumer perspective (see: Aaker 1991; Biel 1992). Aaker's (1991) framework of brand equity has been labelled a consumer-based brand equity framework within this thesis as it is driven from a consumer perspective. There have been many studies which have been based on Aaker's (1991) framework and they also have a consumer perspective.

Aaker (1991) and Keller (1993) have provided brand equity conceptual frameworks where there are links between brand equity and consumer response variables. Aaker's (1991) model identified five major consumer-related bases for brand equity: brand loyalty, name awareness, perceived quality, brand associations and other proprietary associations. Keller (1993) however proposed a knowledge-based framework comprising of: brand associations and brand image. Attitudinal brand equity measures seem to be the most common when assessing customer-based brand equity. Aaker's (1991) five dimensions of brand equity: brand loyalty, brand awareness, perceived quality, brand associations and other proprietary assets. He describes: brand loyalty as: *The loyalty of the customer base* (Aaker 1991, p.19); name associations as: *... there may be an assumption that a brand that is familiar is probably reliable, ... and of reasonable quality* (Aaker 1991, p.19); perceived quality as: *A brand will have associated with it a perception of overall quality not necessarily based on knowledge of detailed specification* (Aaker 1991, p.19); brand associations as: *The underlying*

value of a brand name often is based upon specific associations linked to it (Aaker 1991 , p.20); and other proprietary assets as: ... represents such other proprietary brand assets as patents, trademarks, and channel relationships (Aaker 1991, p.21). Netemeyer et al. (2004) added that value for cost is a subcomponent of the quality domain of consumer-based brand equity. This value for cost subcomponent of quality can manifest itself into the perceived quality dimension in some industries. This assertion is also supported by Andreassen and Lindestad (1998). Andreassen and Lindestad (1998) found that perceived quality impacts on consumer's perceptions of value. This supports the suggestion that there are two dimensions of quality which are related: perceived quality and value for cost; and that perceived quality is an antecedent to value for cost. This is discussed in greater detail within the quality and loyalty sections of this chapter, sections 2.3.2 and 2.3.3 respectively.

Some of the many studies conducted on brand equity from a consumer perspective which have been based on Aaker's (1991) consumer-based brand equity conceptual framework are outlined below in Table 2.6.

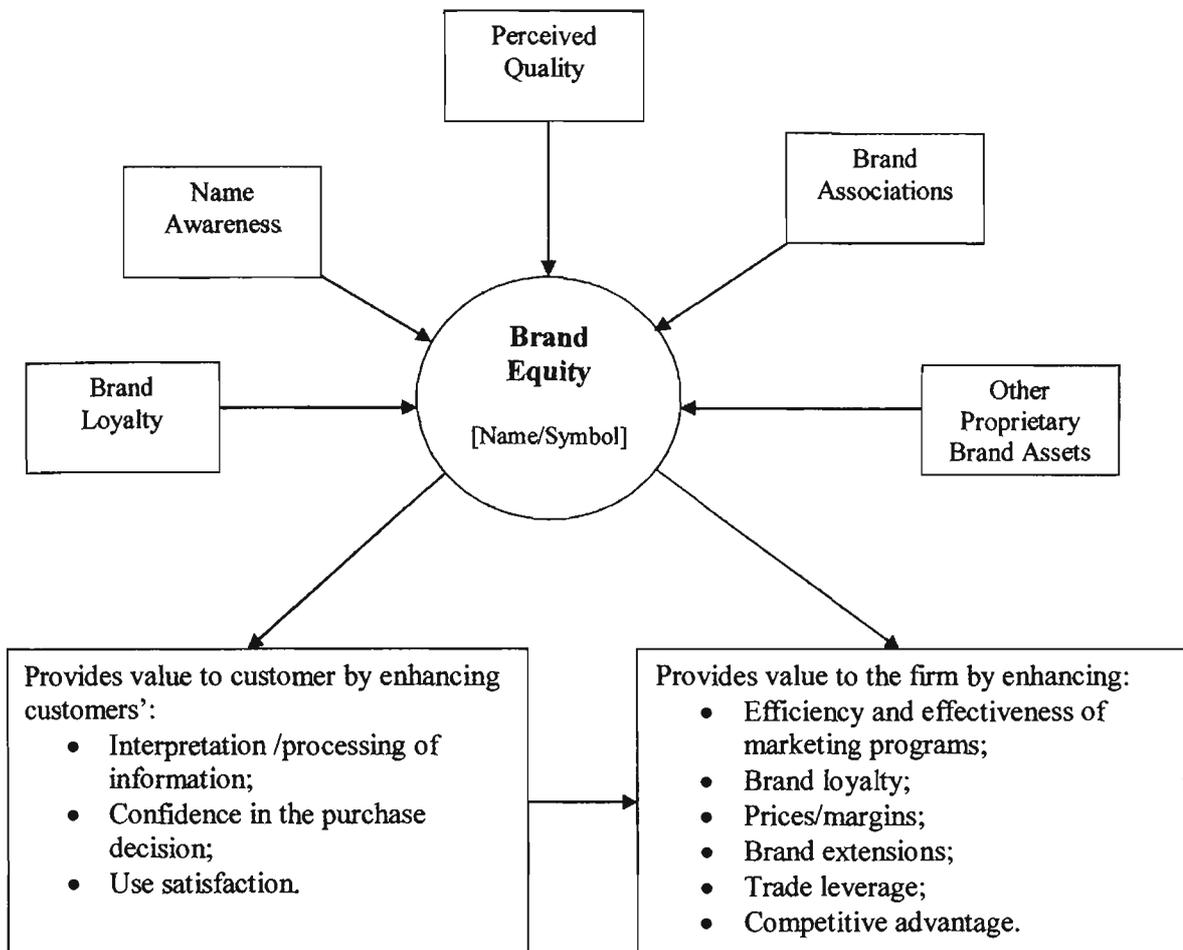
**Table 2.6: Examples of Consumer-Based Brand Equity Measures**

Measures of Consumer-Based Brand Equity	Authors in the Area
The brand dependence scale (Bristow, Schneider & Schuler 2002)	Studies based on Aaker's (1991) Consumer-Based Brand Equity Framework (see: Baldouf & Cravens 2003; Bamert & Wehrli 2005; Christodoulides & de Chernatony 2004; Delgado-Ballester & Munuera-Aleman 2005; Eagle & Kitchen 2000; Faircloth, Capella & Alford 2001; Grace & O'Cass 2005; James, D. 2005; Kim, H.-B., Kim & Jeong 2003; Krishnan & Hartline 2001; Netemeyer et al. 2004; Orth et al. 2004; Sweeney & Soutar 2001; Washburn & Plank 2002; Yoo & Donthu 2001)
The perceptions of brand benefits or perceived value for durable consumer goods (PERVAL) (see: Orth et al. 2004; Sweeney & Soutar 2001)	
Consumer-based/customer-based brand equity (see: Netemeyer et al. 2004; Washburn & Plank 2002; Yoo & Donthu 2001)	

One of those studies is by Krishnan and Hartline (2001) who looked at the relationship between weak brand associations and strong brand associations. Their measure comprised of two quality stand alone items, a value for money item and a trust item. These items were also consistent with Aaker's (1991) brand equity definitions. Sweeney and Soutar's (2001) PERVAL scale: the perceptions of brand benefits or perceived value for durable consumer goods was another based on Aaker's

(1991) framework. Sweeney and Soutar's (2001) PERVAL scale also had four distinct value dimensions: emotional, social, quality/performance and price/value for money. Orth et al. (2004) studied brand benefits using the PERVAL scale by Sweeney and Soutar (2001). The PERVAL scale did remain consistent with Aaker's (1991) brand equity model. Studies conducted by Yoo and Donthu (2001), Kim et al. (2003), Baldouf and Cravens (2003), Netemeyer et al. (2004), Christodoulides and de Chernatony (2004), Grace and O'Cass (2005), Delgado-Ballester and Munuera-Aleman (2005), Bamert and Wehrli (2005) and James (2006) were also based on Aaker's (1991; 1996b; 1996a) conceptual framework. Atilgan, Aksoy and Akinci (2005) state that the conceptual model constructed by Aaker (1991) is the most commonly cited and has been probed in a number of empirical investigations (see: Eagle & Kitchen 2000; Faircloth, Capella & Alford 2001; Netemeyer et al. 2004; Washburn & Plank 2002; Yoo & Donthu 2001).

Aaker (1991) has outlined that the assets and liabilities of the brand must be linked to the brand either through its name and/or symbol. He highlights that the assets and liabilities upon which consumer-based brand equity is formed, is based on context and differences occur. A summary of his framework is presented in Figure 2.3 below.



**Figure 2.3: Consumer-Based Brand Equity Framework**  
 (Source: Aaker 1991, p.17)

Aaker's (1991) model above seems to have slight clarity issues, in the sense of whether this framework of consumer-based brand equity focuses only on the antecedents to the concept or whether this framework describes the consequences of the concept. Aaker (1991, p. 18) has explicitly stated that: *...In some circumstances it might be useful to explicitly include other brand equity dimensions as outputs of brand equity as well as inputs, even though they do not appear in Figure 2.3.* However this seems to be a common problem throughout the brand equity literature. There are some similarities between Aaker's (1991) consumer-based brand equity framework and Biel's (1992) framework illustrated in Figure 2.2 presented earlier in this chapter. Biel (1992) has incorporated three of Aaker's (1991) consumer-based brand equity elements: brand loyalty, perceived quality and other proprietary assets together under the label of *brand equity*. Aaker's (1991) consumer-based brand equity elements of name awareness and brand associations are integrated by Biel (1992) into *brand image*, which can be considered to be existing reputation. Biel (1992) also

discusses what Aaker (1991) has categorised as customer value and organisation value enhancements as the *market value of a brand*. Within Aaker's (1991) consumer-based brand equity framework expressed in Figure 2.3, this thesis is explicitly focusing on the brand loyalty and perceived quality elements within his framework by one customer stakeholder group, postgraduate business students. However, this study is also implicitly examining the impact of name awareness and brand associations through a global item labelled perception of the university's reputation. The brand loyalty and quality domains of consumer-based brand equity and their non-image antecedents (course and course related experiences) and uncertainty avoidance culturally-anchored value orientation within this study is consistent with Biel's (1992) brand equity framework. The brand image component of Biel's (1992) framework is being investigated within this study as university reputation importance ratings.

Greater detail on Aaker's (1991) framework for consumer-based brand equity in a university postgraduate setting is presented below through three subsections. Each subsection will discuss that level of consumer-based brand equity and whether it is being examined within this study. The first subsection will present the literature on two highly related elements of Aaker's (1991) consumer-based brand equity framework: brand awareness and brand associations. Both of these marketing concepts have been extensively researched within the literature and there seems to be an overlap in the literature between these two concepts, image and reputation. The relationships between brand awareness, brand associations and brand image have been presented earlier. This section will discuss these three concepts and its association with reputation in a university setting under the label of reputation. Subsection two presents Aaker's (1991) perceived quality dimension which includes an overview of the quality literature and the value of quality in a postgraduate university setting. The third subsection presents the brand loyalty component of Aaker's (1991) consumer-based brand equity framework. This subsection also provides an overview of the loyalty literature and discusses the value of brand loyalty in relation to the university sector.

The other proprietary brand assets component of Aaker's (1991) consumer-based brand equity framework is not being examined within this thesis. This component of Aaker's (1991) framework includes: patents, trademarks and channel relationships.

Aaker (1991, p.21) presents a description of the benefits of the other proprietary brand assets component:

*...a trademark will protect brand equity from competitors who might want to confuse customers by using a similar name, symbol or package. A patent, if strong and relevant to customer choice, can prevent direct competition. A distribution channel can be controlled by a brand because of a history of brand performance.*

In a university setting this may include patents that have been developed by certain research areas within the university. Therefore these research areas have additional credibility within their industry which in turn may draw potentially large cohorts of high quality applicants.

### **2.4.1 Reputation**

As stated earlier, this section presents two highly related elements of Aaker's (1991) consumer-based brand equity framework: brand awareness and brand associations with respect to brand image and reputation. Rao (1994) described the relationship between image and reputation as sharing a number of components. This section explicitly discusses this literature domain in a university context. Within this study students' perceptions of the university's reputation is gauged by a single item as to how important the university's reputation is to students. Therefore the aim of this study is not to explicitly measure the levels of brand awareness, brand associations, brand image and reputation for universities but to gauge the impact of students' pre-existing perceptions of university reputation (which according to the literature domain discussed earlier, is a result of the perceptions of brand awareness, brand associations, brand image and reputation) and any impact it may have with the student-based brand equity elements of loyalty, perceived quality and value for cost.

Oliver (1980) states that in evaluating the performance of a product or service, customers need to gauge what is good or acceptable and brand name can create certain expectations. Barich and Kotler (1991) discuss image and reputation in a university context. They state that the role of institutional image and reputation in customer buying intentions is important. According to Kennedy (1977) institutional image comprises of two main components and they are functional and emotional.

Nguyen and LeBlanc (2001, p. 303) define the functional component as: *...tangible characteristics that can be easily measured* and the emotional component as: *...psychological dimensions that are manifested by feelings and attitudes towards the organisation*. They further define institutional image as an aggregate result where by the public compares and contrasts the various attributes of organisations. Raj (1985) and Dick and Basu (1994) claim that image and reputation of an institution are important in maintaining customer loyalty which is consistent with Barich and Kotler (1991). Harvey and Busher (1996) acknowledge that there have been ethical questions raised about approaching students as customers, however, if it is correctly understood and applied by professionals in education, it can be beneficial. Jarvis (2000) agrees with Harvey and Busher (1996), and adds that universities are increasingly behaving as corporations as the competition among institutions within the higher education sector intensifies.

Milo, Edson and McEuen (1989) and Weissman (1990) state that institutional image and loyalty are extensively used for positioning in influencing students' choice of a higher education institution. Arpan, Raney and Zivnuska (2003) claim that there are few studies that examine the image of non-profit organisations like universities. Treadwell and Harrison's (1994) study focused on a university's image among students, faculty and staff. Their findings were that a range of factors which included: academic excellence, friendships being formed, whether graduates were proud of their education, the school's national image, image of faculty research, whether cultural contributions to the community were evident, student social events, facilities and the homogeneity of the student population affected university image. Bryant et al. (1996) identified university attributes that may determine enrolment and these factors were: family connections, rankings of the schools, departments or majors, education quality, university size and emphasis on sports. These findings were also consistent with Treadwell and Harrison (1994).

Arpan, Raney and Zivnuska (2003, p. 99) also claim that: *...existence of party-school image; image of the Greek system; existence of a family atmosphere; friendliness of students; and extent of family-related values on campus* are important indicators of the overall university climate when students and family members were assessing a school. Cubillo, Sanchez and Cervino (2006) state that a positive institution image

can strongly influence the consumer's decision to attend an educational institution, which is consistent with Qureshi (1995), Mazzarol (1998), Bourke (2000) and Gutman and Miaoulis (2003). Qureshi (1995) and Price, Matzdorf, Smith and Agahi (2003) state that institutional image is also affected by auxiliary services which include: library facilities, computer availability, quality of library facilities, availability of quiet areas and the availability of self-study areas. Nguyen and LeBlanc (2001) add that an institution's image and reputation may also impact on students' decisions to stay for further studies. However, Nguyen and LeBlanc (2001) further claim that there is little empirical evidence within the management education literature to support the relationship between institutional image and reputation or about the influence of these constructs on customer loyalty.

Building institutional image has been described as a lengthy process related to symbols and values, which is volatile, as it can be destroyed by neglecting the needs of those who interact with it (see: Dichter 1985; Herbig, Milewicz & Golden 1994; Nguyen & LeBlanc 2001). Institutional image has also been described as the result of a process by MacInnis and Price (1987). According to Nguyen and LeBlanc (2001, p. 304) *...institutional reputation has been studied by researchers in the fields of economics, organisational theory and marketing*. Economists analyse the relationship between product quality and price, where as organisational researchers focus on social identity and organisational survival (see: Fombrun & Shanley 1990; Hall, R. 1993; Shapiro, C. 1982). Within the marketing literature reputation is studied through brand equity and they associate it with organisational credibility (see: Aaker 1996a; Herbig, Milewicz & Golden 1994). Hoch and Ha (1986) state that brand, has a dramatic effect on perceptions of quality, when there is ambiguous product information. Dodds, Monroe and Grewal (1991) claim that brand name enhances the product's value. Rao and Ruekert (1994) and Richardson, Dick and Jain (1994) added to the definition proposed by Dodds, Monroe and Grewal (1991) by stating that brand name provides information about product quality. Selnes (1993) agrees with Hoch and Ha (1986) and adds that consumption makes attitudes more accessible and therefore the brand reputation becomes a directive for future behaviour.

Selnes (1993) also states that customer satisfaction and brand reputation are important antecedents of intended loyalty. He adds that brand reputation and satisfaction have

been found to affect loyalty separately. Jacoby and Chestnut (1978) and Selnes (1993) state that marketing researchers have a consensus that there is a strong effect of brand reputation on loyalty. Selnes (1993) also found that brand reputation and perceived quality are two distinct constructs which are correlated and that both brand reputation and perceived quality drive loyalty. His other significant finding is that brand name is important for physical products, services and combined product-service industries when creating loyalty. He also noted (Selnes 1993, p.31) that when: *...customers have limited ability to evaluate product quality, brand reputation ...should be emphasised.* Moorthy (1985) and Herbig and Milewicz (1997) depict the importance of positive reputation in having successful brands. Herbig and Milewicz (1997, p. 28) state: *Buyers tend to use brand names as signals of quality and value and often gravitate to products with brand names they come to associate with quality and value.* Moorthy (1985) claimed that high quality performance on one product can often be transferred to another product because of its brand name.

Selnes (1993) further defines brand reputation as a perception of quality associated with the name. Therefore within a university setting the perceived brand of the university may be used by prospective students as a substitute for perceived quality. Similarly once students experience the university, this brand perception may indeed become directive of their future willingness to repurchase or refer the university and its courses to others. Brand name is an attribute to the product but not part of the physical product itself (see: Aaker 1991; Aaker & Keller 1990; Selnes 1993). It has also been well documented that reputation is related to the perceived quality of a product or service (see: Shapiro, C. 1983; Zeithaml 1988). Selnes (1993, p.20) adds that: *The major point is that brand reputation is not necessarily limited to a focal product or service ... the brand appears to be more often connected to the reputation of the company rather than individual products or services.* Hence within a university context, it could be suggested that perceived reputation of the university is more of a focal point than its courses.

Herbig and Milewicz (1997) provide another definition of reputation which has a different focus than Selnes' (1993). Herbig and Milewicz (1997, p.25) define it as an: *...estimation of the consistency over time of an attribute of an entity. This estimation is based on the entity's willingness and ability to perform an activity repeatedly in a*

*similar fashion.* They further described reputation as an aggregate composite of all previous transactions conducted by the entity. In order for reputation to be established information needs to flow from one user to another, and transactions between the entity and other parties must have occurred (Herbig & Milewicz 1997). Therefore within a university setting the course experiences of current students may flow on to prospective students through word of mouth. Herbig and Milewicz (1997) also suggest that an organisation will lose its reputation if it fails to fulfil consumer expectations. In a university setting this may occur if course experiences are perceived to be inadequate by the student customer base. Herbig and Milewicz (1997) also note that the term reputation infers two meanings, one from an organisation perspective and the other from a consumer perspective. Organisations use reputation and credibility for predicting the actions of competitors. To consumers reputation means the quality of the product. Therefore within this study, students' importance ratings of the university's reputation may be used as a substitute for perceived quality as alluded to earlier. This is also consistent with Hoch and Ha (1986) and Selnes (1993).

Shapiro (1983) and Herbig and Milewicz (1997) claim that reputation is not a perfect attribute as it always suffers from a time lag effect between transactions. *The concept of reputation depends on a user's initial beliefs and its observations of a firm's past behaviour* (Herbig & Milewicz 1997, p. 26). Organisations can enhance their reputation by providing accurate information which in turn builds secure long-term gains. Within a university setting, universities may improve their reputation by providing detailed information about their organisation and its affiliations. Universities may also improve their reputation through course information.

Herbig and Milewicz (1997, p.28) also state that: *Brands often develop a 'personality' of their own that has an effect on whether users decide the product's image is consistent with their needs. With this 'personality' often goes a reputation as well.* They also add that the reputation of an established brand name can be carried across to new products. However if problems arise with the new products this can affect the saleability of all items sharing the same brand name. This may also be true within a university context, where existing perceptions of university reputation may extend from its current academic specialisations to new specialisations being offered. In the

event that the new specialisations are not recognised or accredited by professional bodies may also affect other well established specialisations offered by the university.

Long and Schiffman (2000) and Belen del Rio, Vazquez and Iglesias (2001) extend on Herbig and Milewicz's (1997) personality concept. They discuss the importance of social identification where the communication of brands and consumers' desire towards the brand is to be integrated or dissociated. Therefore positive value of brands with a good reputation among consumer social groups or social groups they aspire to become a part of, form their desire to purchase. Solomon (1999) and Vigneron and Johnson (1999) describe the status function alluded to by Long and Schiffman (2000) and Belen del Rio, Vazquez and Iglesias (2001), as admiration and prestige associated with consumers' experiences upon using the brand. It has been suggested that this is based on five brand characteristics and these are: the symbol of power and social status, social approval, exclusiveness, emotions and technical superiority (see: Belen del Rio, Vazquez & Iglesias 2001; Vigneron & Johnson 1999). This may also be true within a university context, where prospective students may want to study at certain universities to become members of particular social groups which have a perceived status.

Belen del Rio, Vazquez and Iglesias (2001, p. 412) elaborate on the similarity and distinction between the concepts of: status and social identification. They revealed a similarity between status and social identification is: *...the need of individuals to communicate certain impressions to people in their social environment.* The distinction between status and social identification is that social identification is related to *...the desire to be accepted by ...members of certain groups*, where status relates to the desire to achieve prestige and recognition from others (Belen del Rio, Vazquez & Iglesias 2001). Therefore it does not necessarily mean that the brand of choice and use is representative of their social group, it may indeed be a group the consumer aspires to become a part of. In a university setting, it may be an alumni group member the prospective student is aspiring to become a part of. Institution selection is the result of consumer perception of several factors including: academic reputation of the institution, the quality and expertise of its teaching faculty, attractiveness and campus atmosphere (see: Lin, L. 1997; Mazzarol 1998; Soutar & Turner 2002).

According to Arpan, Raney and Zivnuska (2003), Kazoleas, Kim and Moffit's (2001) study is an exemplar which focuses on university image. Kazoleas, Kim and Moffit's (2001) study examined the factors associated with the image of one university held by individuals throughout the university's home state. Their findings included: the image factors controlled by the university like: the existence of particular programs; the strength of academic programs; libraries; and technical facilities were stronger predictors of overall image ratings when compared to environmental factors like: location; expense compared to other universities; and admission standards compared to other universities. They also found that personal experiences with the university had a greater impact on overall image than media exposure related to the university. Kazoleas, Kim and Moffit (2001) also identified a group of separate images of the university which also contributed to the overall university image. These separate images included: high quality programs, quality education, and commitment to providing good service to students. They (2001, p. 215) added that:

*...multiple images and image attributes can be held, and even struggle against each other, within each individual and can change sometimes even moment to moment based on the factor(s) influencing image(s) at that historical moment.*

Arpan, Raney and Zivnuska (2003) extended on Kazoleas, Kim and Moffit's (2001) study and found that academic attributes, athletic attributes and news coverage also affected image ratings given by current university students. Non-students also considered the attributes outlined above, as well as word of mouth evaluations of friends and family members. The findings of Kazoleas, Kim and Moffit (2001) and Arpan, Raney and Zivnuska (2003) are consistent with previous studies dating back to the 1980s, on student selection factors, and have also been subsequently build upon by Chen and Zimitat (2006), and Cubillo, Sanchez and Cervino (2006). Powers (1988) found that academic quality, quality and reputation of the faculty and placement opportunities are important in selecting a university. Similar findings were reported by Parker, Pettijohn and Pettijohn (1989), where they indicated that educational attainments of the faculty, university image, faculty research and tuition costs are important elements affecting university selection. Baker, Creedy and Johnson (1996) focused on international student selection factors within Australia's higher education sector and found that high quality institutions and courses, as well as good reputation of courses in their specialised field were the most important because they improved

potential job prospects when returning home. These results were also replicated by Chen and Zimitat (2006).

Chiu's (1999) results from the research conducted on international student selection factors and MBA programs were consistent with Baker, Creedy and Johnson's (1996) and Chen and Zimitat's (2006) studies. Chiu (1999) found career development to be the most important motivator for studying abroad. Institutional status with regards to how famous and how good a university is, was the most important criterion for selecting an MBA program abroad. Other selection factors Chiu (1999) identified as important were: the program structure; the length of the course; cost; supportive facilities; local accreditation; and overseas accreditation.

Srinivasan and Till (2002, p. 418) state that: *...strong brand names can reduce consumer anxiety and simply the ...process...brand name may have differential effects on consumers' perceptions of different types of attributes.* This definition is consistent with previous research (see: Herbig & Milewicz 1997; Hoch & Ha 1986; Keller 1993, 1998; Selnes 1993). Cubillo, Sanchez and Cervino (2006) examined perceived risk of students when selecting an institution to study at. They (2006, p. 103) state that:

*...consumers usually associate intangibility with high level of risk...intangibility hinders the communication of services to the customer and the setting of prices for international education...consumers analyse aspects such as the image of the brand, the institution, and the country of destination.*

This is also consistent with previous studies conducted on university selection (see: Arpan, Raney & Zivnuska 2003; Baker, Creedy & Johnson 1996; Chiu 1999; Kazoleas, Kim & Moffit 2001). Cubillo, Sanchez and Cervino (2006) also state that prospective students will consider the following aspects: safety, security, cultural activities, international background, university environment, and quality of life and visa entry requirements when considering studying in a host country.

Cubillo, Sanchez and Cervino's (2006) study had conceptual similarities with Park and Stoel's (2005) study. Park and Stoel (2005) presented a discussion on the importance of brand familiarity and its effect on perceived risk. They (2005, p. 150)

have defined brand familiarity as: *...the number of brand related direct or indirect experiences that have been accrued by the consumer.* Brand experiences have been described as exposure to the brand by: media advertisements; in store availability; and the purchase or usage of the brand. These brand experiences were found to increase the familiarity of the brand, and that through the possession of the brand, positive evaluations resulted due to familiarity with the consumer (see: Alba & Hutchinson 1987; Park, J. & Stoel 2005). Park and Stoel (2005, p. 150) also state that: *Brand familiarity can be enhanced by frequent exposure to the brand.* This finding is consistent with earlier research conducted by Kent and Allen (1994) and MacInnis, Moorman and Jaworski (1991) where well known brands have a tendency to be easily recalled and that brand familiarity provides greater motivation to consumers because they are recognised as being available.

The relationship between brand familiarity and perceived risk has been summarised well by Park and Stoel (2005, p. 150) as:

*The degree of uncertainty or risk consumers feel about their ability to judge the outcome of purchasing the product may be considered the inverse of the buyer's confidence in making that purchase. They further state that: As familiarity with the brand increased, a consumer's confidence about that brand increased, suggesting that consumers perceive less risk when they are more familiar with the brand.*

In a university context a way to reduce the perceived risk is by considering a series of factors during the course selection process. Judge, Cable, Boudreau and Bretz (1995) also claim that the quality and prestige of a university relate to financial success, and that graduates from highly respectable universities enjoy large pay premiums. Judge et al. (1995, p. 510) further state: *Prestigious universities besides being more likely to bestow scholastic capital upon their graduates (which should be captured by education quality), also provide graduates with social and cultural capital.* This is supported by Tang, Tang and Tang (2004, p. 307) where they claim: *In a sense, these graduates get what they paid for (i.e. the reputation of the university).* Joseph and Joseph (1997, p. 18) state that: *For students an institution with academic reputation is one which has a prestigious degree program, recognised nationally and internationally, and which has excellent instructors.* Joseph and Joseph (2000) state that the most important criteria for choosing a university are: the flexibility and length of the program and reputation/prestige related issues. They identified that course and

career information which includes: information given on career opportunities, information provided to choose an area of study and peer and family influences; and physical aspects and facilities like: ideal location, the learning environment, recreation and other facilities, social activities on campus, necessary resources are available, clean and safe environment and a good faculty are the most important factors when selecting an institution.

Soutar and Turner's (2002) study also produced similar findings to Joseph and Joseph (2000). Soutar and Turner (2002, p. 44) found that: ... *a university with a strong academic reputation, ...very good teaching quality,...the course that they really wanted,... good job prospects,... and a great campus atmosphere* are the key predictors of university choice and evaluation. Their findings mirrored previous research with course suitability, academic reputation, job prospects and teaching quality were the most important determinants of university choice (see: Hooley & Lynch 1981). Price et al. (2003) added to Soutar and Turner's (2002) findings by stating that the university's reputation for teaching is very important when choosing a university to study at. Tang, Tang and Tang (2004) also mirrored Soutar and Turner's (2002) and Price et al.'s (2003) findings. Tang, Tang and Tang (2004) claimed that university graduates from the best academic reputation universities seem to have a better chance to land a job than those without. These results are also consistent with investigations into university image and university familiarity on university selection factors (see: Arpan, Raney & Zivnuska 2003; Chen, C.-H. & Zimitat 2006; Chiu 1999; Cubillo, Sanchez & Cervino 2006; Kazoleas, Kim & Moffit 2001). Satir (2006) sums up this issue well by stating that reputation cannot be explained merely by only one experience, contact or impression.

Andreassen and Lindestad (1998) describe brand reputation as a perception of quality associated with a name, which is consistent with Aaker and Keller's (1990) framework. Bromley (2000) claims that reputation is the result of identity and image which highlights the overlap between the brand image and reputation concepts. Balmer's (1998) assertion differs with Bromley's (2000) and claims that image and reputation differ. Image is the latest beliefs about an entity; reputation is a value judgement about the entity's qualities. Cornelissen and Thorpe (2002) are in disagreement with Balmer (1998), as Cornelissen and Thorpe (2002) state reputation

is the collective representation of past images which have been established over time. Bennett and Kottasz (2000) disagrees with Cornelissen and Thorpe (2002) but is in agreeance with Balmer (1998). Bennett and Kottasz (2000) add that there is a distinction between image and reputation because reputations evolve over time and therefore they cannot be generated as quickly as an image. Dolphin (2004, p. 79) states that reputation can be defined as: *...a distribution of opinions (the overt expressions of a collective image) about an entity (Bromley 2001) or as the interactions between and among stakeholders of which the organisation has no direct input (Mahon 2002)*. Dolphin's (2004) definition of reputation also highlights the overlap within the literature between the concepts of brand image and reputation. This is also supported by Bromley (2000) and Cornelissen and Thorpe (2002). Kartalia (2000) states that reputation is critical for a winning organisational strategy. Hutton, Goodman, Alexander and Genest (2001), Mahon and McGowan (1996) and Dolphin (2004) agree that a good reputation is paramount to organisations. Hutton et al. (2001) state that this is becoming increasingly important for universities.

Nguyen and LeBlanc (2001) discuss the concept of university reputation. They state that although there are different terms within the literature describing and defining institutional reputation there appears to be a consensus of the concept, and it is the result of the organisation's actions in the past. Yoon, Guffey and Kijewski (1993) suggest that institutional reputation mirrors the organisation's history. Wartick (1992) describes this same concept as an aggregation of stakeholders perceptions on the match between the demands and expectations of stakeholders and the organisation's responses. Nguyen and LeBlanc (2001, p. 305) state that: *...institutional image and reputation are external perceptions of the organisation*. They further state that: *Even for a person who has not yet had experience with the organisation, these perceptions may be formed from other sources of information such as advertising and word of mouth*. This is also supported by Ivy (2001) who claims that institutional image is formed through word of mouth, past experience and the marketing activities of the university. Veloutsou, Lewis and Paton (2004) state that prospective university students attempt to reduce the uncertainty by collecting information during the university selection process. These results are also consistent with the results of investigations into brand awareness, brand associations, brand image and brand familiarity (see: Arpan, Raney & Zivnuska 2003; Chen, C.-H. & Zimitat 2006; Chiu

1999; Cubillo, Sanchez & Cervino 2006; Herbig & Milewicz 1997; Kazoleas, Kim & Moffit 2001; Nguyen & LeBlanc 2001; Selnes 1993). Nguyen and LeBlanc (2001, p. 309) add that:

*In educational services, the merchandise component is not part of the service act. Moreover, the student's presence and participation are often required in the service delivery process. Therefore, contact elements such as faculty members, other employees and facilities on campus may be considered as critical factors which determine the student's perception of the image or reputation of higher education institutions.*

The preceding discussion gives rise to the following proposition:

*P<sub>1</sub>: Postgraduate business students' perceptions of their university's reputation affect their perceptions of student-based brand equity (quality, value and loyalty).*

## **2.4.2 The Quality Domain**

*Quality is an unusually slippery concept, easy to visualise yet exasperatingly difficult to define* (Garvin 1988, p. ix). Aaker (1991) describes the concept of perceived quality as the consumers' overall evaluation of a service experience which includes the overall quality or superiority of the product or service in relation to its intended purpose and the alternatives available. Bamert and Wehril (2005, p.134) present another definition of quality: *Quality is an elusive and indistinct construct...* which is consistent with Garvin (1988), Aaker (1991) and Lin et al. (2000). Another description of quality is presented by Pappu and Quester (2006). They have described quality as consumers' judgement about overall excellence or superiority. This is also consistent with previous research (see: Aaker 1991; Aldridge & Rowley 1998; Zeithaml 1988; Zeithaml, Parasuraman & Berry 1990). It has also been stated that quality and the notion of service quality are important concepts in the current market environment (Lin, C. Y. et al. 2000). This is particularly the case in the globalisation of the higher education sector in Australia and in other countries with well developed universities. Examples include the USA, the UK and New Zealand.

Aaker's (1991) perceived quality dimension consists of both product quality and service quality. He also makes a clear distinction between perceived quality and actual/objective quality, product-based quality, and manufacturing quality.

Actual/objective quality is concerned with superior service. Product-based quality relates to features, ingredients etc., and manufacturing quality is conforming to specifications. Bamert and Wehrli (2005) also made the connection between Gronroos' (2001) postulation that both technical and functional quality is critical within the service industry and Aaker's (1991) perceived quality dimension. Gronroos (2001) describes technical quality as what the customer received from the service provider, and functional quality as the manner in which the service is delivered. Perceived quality cannot be considered an objective means because it measures customer perceptions and judgements. Consumers' views and opinions differ as do their personalities, needs and preferences which confirm the subjectivity of quality measurement. Aaker (1991) states that perceived quality needs to be defined in accordance with an intended purpose and a set of alternatives. Sharp, Page and Dawes (2000) agrees with Aaker's views and state that measuring service quality involves asking customers for subjective attitudinal evaluations.

Aaker (1991) adds that there is also a distinction between perceived quality and satisfaction. Aldridge and Rowley (1998, p.200) agree with Aaker (1991) and state that: *...quality is a general attitude, ... satisfaction is linked to specific transactions.* Expectations about performance are what create customer satisfaction (Aaker 1991). A customer could be satisfied but indeed had low expectations about the performance. Nevertheless Aaker (1991) is quick to add that high perceived quality is not associated with low expectations. He also discusses the distinction between perceived quality and attitudes.

*A positive attitude could be generated because a product of inferior quality is very inexpensive. Conversely, a person could have a negative attitude toward a high-quality product that is overpriced (Aaker 1991, p.86).*

Hence it can be stated that perceived quality is intangible and does reflect the overall feelings about a brand, which is usually based on a number of underlying dimensions including product characteristics (Aaker 1991). Andreassen and Lindestad (1998) extends on Aaker's (1991) framework by adding that perceived quality also has a positive impact on value. This supports the suggestion that there are two dimensions of quality which are related (perceived quality and value for cost) and that perceived quality is an antecedent to value for cost. This is discussed in greater detail with

regards to loyalty within section 2.3.3 in this chapter. This is also consistent with Parasuraman and Grewal's (2000) findings that quality and value are two related but distinct constructs that are antecedents to loyalty and that quality had a direct and mediated effect (through value) on loyalty. These findings were replicated in Petrick's (2004b; 2004a) studies. Netemeyer et al.'s (2004) findings through the development of their consumer-based brand equity measure agreed with Andreassen and Lindestad's (1998), Parasuraman and Grewal's (2000) and Petrick's (2004b; 2004a) findings that quality and value are antecedents to loyalty.

However, Netemeyer et al. (2004) through their series of four separate studies found that perceived value for cost and perceived quality were highly correlated constructs, and that this suggested that in some contexts perceived quality and perceived value for cost judgements did not show adequate discriminant validity. However they also note that there are occasions where perceived quality and perceived value for cost have good discriminant validity and can be used as separate constructs. This suggests that the choice of measures of these constructs may play a significant role in these studies' outcomes. Furthermore, as suggested by Netemeyer et al. (2004) industry may also play a part. The higher education sector, and in particular the university component of this sector justifies a distinction between the two highly related components of the quality domain (perceived quality and value for cost). Perceived quality within this context focuses on the quality of the university's courses and the consistency of the outcomes delivered by the university's courses. The perceived value for cost construct within a university setting encapsulates the worth of the course in respect to price, time and effort outlaid for the knowledge gained. The methodology employed within Netemeyer et al.'s (2004) study is discussed in greater depth in Chapter 4.

Aaker (1991) also indicates that perceived quality between products and services have distinct differences, see Table 2.7 .

**Table 2.7: Perceived Quality Differences**

PRODUCT QUALITY	SERVICE QUALITY
Performance: How well does a washing machine clean clothes?	Tangibles: Do the physical facilities, equipment, and appearance of personnel imply quality?
Features: Does a toothpaste have a convenient dispenser?	Reliability: Will the accounting work be performed dependably and accurately?
Conformance with specifications: What is the incidence of defects?	Competence: Does the repair shop staff have the knowledge and skill to get the job done right? Do they convey trust and confidence?
Reliability: Will the lawn mower work properly each time it is used?	Responsiveness: Is the sale staff willing to help customers and provide prompt service?
Durability: How long will the lawn mower last?	Empathy: Does the bank provide caring, individualised attention to its customers?
Serviceability: Is the service system efficient, competent and convenient?	
Fit and Finish: Does the product look and feel like a quality product?	

(Source: Aaker 1991, p.91)

Llosa, Chandon and Orsingher (1998) state there are close relationships between service quality and customer satisfaction, customer loyalty, market share and profitability. By creating and delivering quality services it is hoped that businesses will improve both customer satisfaction and their competitive advantage (Lin, C. Y. et al. 2000). Most service companies take this quite seriously and have research programs developed to measure the elements of service quality, customer satisfaction, and relationship quality (Sharp, Page & Dawes 2000). These approaches also implicitly take into account Aaker's (1991) perceived quality dimensions presented in Table 2.7 above.

*In the last decade, higher education in Australia, as in many other countries, has undergone major change at an unprecedented rate. Given the scale of structural reorganisation and rapid growth in higher education participation, the Government took steps to assure the community that the quality of higher education was of an appropriately high standard and that it would be maintained and enhanced (Australian Government 1995, p. 1).*

The Australian government announced a comprehensive set of measures to enhance the quality of higher education teaching and research through its 1991 policy statement, Higher Education: Quality and Diversity in the 1990s, where the Higher Education Council was developed to investigate quality within the higher education system. Subsequently this Council was commissioned to advise the Australian government on strategies which may be developed by the government, to encourage maintain and improve the quality of higher education. From the findings of the Higher Education Council, the Australian government established the Committee for

Quality Assurance in Higher Education as a non-statutory Ministerial Advisory Committee (Australian Government 1995).

The interest in the quality assurance of higher education was not simply limited to Australia, the interest was world wide. The Australian government compared its Australian Quality Assurance Program to other quality measures within the United Kingdom and New Zealand. The Australian Quality Assurance Program was unique with regards to its key element composition in that university participation was voluntary; incentive funding was offered to universities for their participation; the evaluation basis was self-audited; and that the evaluation of the university was holistic, rather than by individual disciplines. The Australian government also imposed evaluation to be conducted by universities for both quality assurance processes within the institution and the quality of its outcomes. These results were to be reported to the public (Australian Government 1995). The Australian Quality Assurance Program is an example of how the Australian government strived to maintain and improve the quality domain (perceived quality and value for cost) of Australia's higher education sector.

*In the United Kingdom, evaluations of relative research productivity are financially rewarded within the context of a total financial allocation – there are winners and losers. In New Zealand, reviews follow Australia's holistic approach, but focus on processes alone without financial incentives. Each approach has its advantages and drawbacks. A holistic approach presents an overall assessment of university activity in process and/or outcomes, limiting identification of specific areas of strength or relative weaknesses. Consequently it loses the richness of detailed analysis by discipline. As a mechanism for effecting change, however, it has the advantage of involving much of the university in a process of self-analysis on a regular basis, rather than individual parts on a less frequent routine. It has the further advantage that it evaluates policy and hence commitment to the future rather than a snapshot of current activities. Finally, compared with an extended series of discipline reviews, it offers high cost effectiveness (Australian Government 1995, p. 2).*

The Australian government commenced the first round of quality reviews in 1993 (Australian Government 1995). In 2000 the Australian Universities Quality Agency (AUQA) was registered. AUQA is a national non-for-profit agency set up to promote, audit and report on quality assurance in Australian higher education (AUQA 2003; 2004; 2005; 2006a). The Ministerial Council on Employment, Education, Training

and Youth Affairs which comprised of nine ministers responsible for higher education in the Australian Commonwealth government and each of the six States and two Territories created AUQA. AUQA receives core operational funding from the Commonwealth, States and Territories, despite this it operates independently (AUQA 2003; 2004; 2005; 2006a). During 2001 a series of trial audits were conducted and since 2002 AUQA has conducted about ten audits per year (AUQA 2003). Since the development of AUQA in 2000 there has also been international interest in AUQA methods from China, Malaysia, New Zealand, South Africa and Thailand (AUQA 2003). AUQA (2006b) has defined quality on their website as:

*Fitness for purpose, where 'purpose' is to be interpreted broadly, to include mission, goals, objectives, specifications, and so on. This is an inclusive definition, as every organisation or activity has a purpose, even if it is not always precisely stated. 'Fitness for purpose' means both that an organisation has procedures in place that are appropriate for the specified purposes, and that there is evidence to show that these procedures are in fact achieving the specified purposes.*

*Some people criticise this definition for ignoring 'fitness of purpose', but this misses the point. Fitness of purpose must be considered at the time that objectives are defined; quality is then a matter of achieving these objectives.*

*Using this definition, achieving quality in education involves two steps. The first step is for institutions to set objectives that embody what is expected and required by students, employers, legislation and statutes, in addition to responding to broader issues, such as the demands arising from the characteristic nature of academic activity and the rapid development of knowledge. The second step is for the institution to ensure that it attains its objectives. Quality is related to standards if the objectives include explicit specification of levels of attainment.*

A theoretical approach to creating quality within the higher education sector is presented by Pennington and O'Neil (1994). They depict quality within the higher education sector as an eight step process as outlined below (1994, p.16-17):

- 1. Enhance Student's General Capabilities and Work-related Skills.*
- 2. Use Student Experience as a Learning Resource.*
- 3. Encourage Active and Co-operative Learning.*
- 4. Promote Responsibility in Learning.*
- 5. Engage with Feelings, Values and Motives (the Affective Domain) as well as with Intellectual Development (the Cognitive Domain).*
- 6. Foster Open, Flexible, Reflexive and Outcomes-based Assessment.*
- 7. Evaluate Teaching and Learning.*
- 8. Establishing Congruence between Learning and Teaching Activities and the Milieu in Which They Occur.*

Pennington and O'Neil's (1994) approach to quality in the higher education sector, focused more on Aaker's (1991) perceived quality construct of the quality domain. The emphasis of their model to quality focused on the teaching and learning interactions within the university sector, and how to improve the quality of these interactions to maintain positive perceptions from students.

A different argument is presented by Rowley (1995). She (1995, p.24) has defined quality assurance as: *... a general term, which encompasses all the policies, systems and processes directed towards ensuring the maintenance and enhancement of the quality of educational provision.* She also claims that the quality of the educational experience of students rests with the institutions and their staff. Athiyaman (2000) found that service quality is significantly related to the amount of information about university courses that is circulated. Rowley (1995) identified some further issues underlying the quality debate within the higher education sector. She (1995, p.25-26) states that:

- 1. Higher education has always been committed to quality and the essence of a high-quality higher education institution is that it should be a self-critical academic community committed to the maintenance and improvement of academic standards.*
- 2. It might not be possible to provide a learning environment of quality at a lower and ever-decreasing unit cost.*
- 3. The task of relating the value gained or benefits of higher education to the resources invested to achieve those benefits is at best complex and perhaps impossible.*
- 4. Elaborate quality systems may not have any positive impact on the quality of the student's learning experience. Indeed, in diverting resources, particularly staff time, towards such systems there is a danger that the systems undermine the quality that they are designed to monitor and promote.*
- 5. An objective consideration of the quality of education in a given subject area or across an institution should be separated from issues of cost of its provision and associated resource issues; but is this feasible?*
- 6. Many existing quality assurance procedures focus primarily on teaching and the staff whose primary focus is in this area. Library and computing services staff, departmental administrative staff and central support staff are often too peripheral to this process. Quality assurance of research activities is often totally neglected and may, by some, be regarded as impossible and intractable.*

Rowley (1995) questions the plausibility of elaborate measures to gauge quality within the higher education sector. She implies that there are quality mechanisms

implicitly in place to produce quality outcomes and that these quality outcomes do depend on both the human resources and non-human resources components. In other words, the quality of academic, library and computer services staff, administrative and central support staff; as well as the non-human resource components like budgets. The implied quality measures that Rowley (1995) suggests are consistent with Aaker's (1991) service quality components of tangibles, reliability, competence, responsiveness and empathy as presented in Table 2.7 above. Le Blanc and Nguyen (1997) focused their study on the personnel other than teachers in a university context which extended on this need raised by Rowley (1995). The results of LeBlanc and Nguyen's (1997) study highlighted that both administrative and faculty personnel had a direct relationship with students' perceptions of quality. Rowley's (1995) perspective on the quality debate in universities, presents examples of both components of the quality domain: perceived quality and value for cost. She explicitly provides examples of the perceived quality component of the quality domain like: the maintenance and improvement of academic standards; and the quality of the student's learning experience. The value for cost component of quality is also acknowledged in Rowley's (1995) discussion on university quality, where she raises the issues of quality and unit cost; and associated resource issues. Through her descriptions, she highlights that value for cost is also an important part of creating quality university courses. In other words do university fees charged reflect the value received by students through quality courses and resources, and is this feasible for students?

Martens and Prosser (1998) also examined quality within an education context, with a different classification approach than that of Pennington and O'Neil (1994) and Rowley (1995). Martens and Prosser (1998, p. 30) outlined two approaches to creating quality within an education context:

- 1. An approach based on ensuring that the subject as a whole, and not just the teachers, are contributing to the improvement of student learning over time. Good teaching is seen in terms of enhancing the relationship between the student and the subject not just in terms of how individual staff members are performing – the focus is on the continuous improving of student learning.*
- 2. An approach based on ensuring that teaching staff fulfil their duties, and identifying those who are not performing adequately, often relying*

*on standardised student evaluation questionnaires to monitor staff performance – the focus is on managing individual staff performance.*

Martens and Prosser's (1998) classification approach although unique does incorporate issues raised by both Pennington and O'Neil (1994) and Rowley (1995). In particular Martens and Prosser's (1998) classification is similar to Pennington and O'Neil (1994) and Rowley (1995) in that it also has a focus on the perceived quality component of the quality domain. Martens and Prosser (1998) view perceived quality from a holistic approach to the improvement of student learning. Measuring the quality of the university experience is increasingly important for universities with the continued globalisation of the industry. However, Slade, Harker and Harker (2000) state that there are two problems that occur when attempting to measure quality within the higher education sector. The first is that students may not know what they want from the university and secondly the output from universities is difficult to monitor. These problems have been mitigated within this study by gauging the responses of postgraduate students who have previously experienced the university sector and are highly likely studying for more strategic outcomes. The preceding discussion gives rise to the following proposition:

*P<sub>2</sub>: Postgraduate business students' perceptions of a supportive university learning environment affect their perceptions of quality.*

Chapter 3 extends on the notion of a supportive university learning environment through a discussion of the components of a supportive university learning environment by drawing parallels between the higher education sector and the perceived organisational support literature.

### **2.4.3 Brand Loyalty**

Aaker (1991) discusses brand loyalty as being the central component of consumer-based brand equity. He states that as brand loyalty increases, the chances of switching behaviour decreases. The brand loyalty element has also been described by Aaker (1991) to be a clear indicator of equity as it can be linked to organisational benefits as outlined earlier in this chapter. Loyalty is expressed by different consumer behaviours towards either a brand, store or service (East, Sinclair & Gendall 2000).

Aaker (1991) highlights the importance of habitual purchasers as they represent an area of revenue that can continue to drive the organisation forward. He also clearly identifies that brand loyalty is qualitatively different in comparison to the other dimensions of consumer-based brand equity. This is because brand loyalty has a close relationship with customer use experiences, and thus can not exist without prior purchase and use experience. Within a university setting the concept of habitual buyers is an interesting one as most students do not necessarily make habitual decisions to continue with their education purchase. Students need to make strategic decisions which includes whether fees for service are justified as well as the appropriateness of their course for their proposed career path. Hence the purchase of a university course cannot be considered to be a frequent impulse purchase but one that may be compared to the purchase of a vehicle or home – a long term investment.

Robinson, Abbott and Shoemaker (2005) agree with Aaker (1991) and they fully support Kim et al.'s (2003, p. 345) statements that: *brand loyal customers rarely buy as a simple reaction to the stimulus of promotion...promotion can reinforce the existing behaviour of existing customers, most repeat purchases...are made on the basis of long-term views and attitudes.* There are two approaches with regards to measuring brand loyalty according to Aaker (1991). The first approach is to consider the behaviour of customers. The second approach is based upon loyalty constructs, which includes: switching costs; satisfaction; liking; and commitment. It is the first approach: customer behaviour that is being examined within this thesis, with a particular focus on the student customer group and their loyalty towards the university.

In measuring brand loyalty through the behaviours of consumer's, three key areas need to be investigated. These are repurchase rates, percentage of purchases and number of brands purchased. Certainly, the loyalty rates of customers depend upon product category. There are limitations to this method of loyalty measurement including high costs, and it becomes difficult to discriminate between or among customers who switch brands or purchase multiple brands (Aaker 1991). East, Sinclair and Gendall (2000) similar to Aaker (1991) has also grouped the loyalty construct into two schools of thought: behavioural measures; and attitude-behaviour combinations. Attitudinal loyalty is popular within the literature (see: Pappu & Quester 2006;

Washburn & Plank 2002; Washburn, Till & Priluck 2000; Yoo & Donthu 2001). Patterson (2000) like Aaker (1991) and East, Sinclair and Gendall (2000), has also grouped loyalty into two categories: attitudinal or behavioural. Patterson (2000) highlights that remaining loyal consists of economising on search effort and reducing perceived environmental uncertainty. Noordhoff, Pauwel and Odekerken-Schroder (2004) agree with the notion of two types of loyalty: behavioural and attitudinal. They also add that loyalty is culture-bound (see: Hofstede 1994), where many of Hofstede's culture dimensions (uncertainty avoidance, masculinity/femininity, individualism/collectivism, power distance and short-term/long-term orientation) directly or indirectly impact on the social role of loyalty, on the emergence of loyalty as well as the consequences of loyal or disloyal behaviour. This thesis is focusing on the uncertainty avoidance cultural dimension as it is the environmental uncertainty within the university context which is of interest in this study. The uncertainty avoidance cultural dimension is discussed in greater detail in Chapter 3. Caldow, Patterson and Uncles (2000) question friendship as a possible component that gives rise to loyalty. They found that friendship is correlated to loyalty, this may also be due to the social role of loyalty as suggested by Noordhoff, Pauwels and Odekerken-Schroder (2004). Caldow, Patterson and Uncles (2000) also found that the strength of the correlation between friendship and loyalty varies according to industry. The notion of the social role of friendship is also addressed within this thesis from a supportive university learning environment context which is discussed in greater detail in chapter three.

The second approach to measuring brand loyalty, according to Aaker (1991) is based on brand loyalty constructs which include: switching costs, satisfaction, liking and commitment. He highlights the importance of understanding switching costs, as they provide insight into brand loyalty through the attribution rate. Switching costs as either an investment in a product (provides the package the firm needs) or the risk of change (if the current system works why change it?) (Aaker 1991). Satisfaction has been described as a diagnostic tool to measuring brand loyalty. Customer satisfaction should be measured in an easily compliable way to avoid bias and remain sensitive. Such measures can identify precipitating decisions to switch. Liking, as described by Aaker (1991) adds another dimension to brand loyalty, for example liking can be reflected through customer willingness to pay more for the branded product.

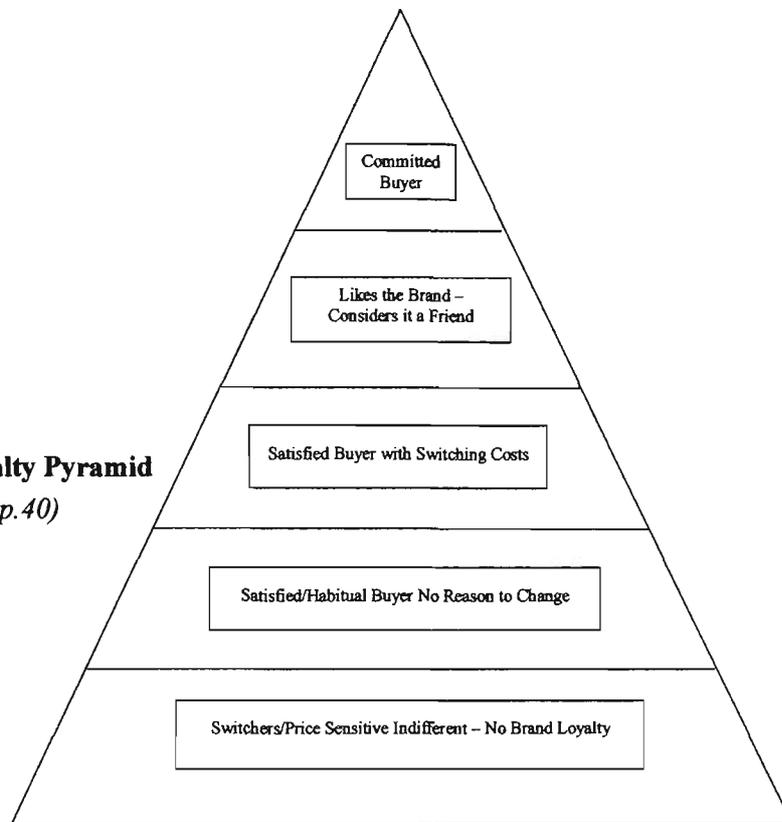
Committed customers to a brand create high equity. Commitment can embed itself in many areas. Aaker (1991) describes the key indicator of commitment as the amount of interaction and communication customers have with the product. This approach to measuring brand loyalty is not being examined within this thesis, as a postgraduate business degree purchase is one of long term investment and commitment. With long term investments there is an assumption that switching costs are high, and therefore in a university context such costs are also generally seen to be high.

Maintaining brand loyalty of existing customers is a strategic asset for any organisation. This can be accomplished through treating the customer favourably, remaining close to customers, measuring and managing customer satisfaction, creating switching costs and by providing extras. Value can be provided in many ways if well managed and exploited. Reduction in marketing costs, trade leverage, attracting new customers through brand awareness, and time to respond to competitive threats (Aaker 1991). Ceurvorst (1994, p.68) states that: *...while monitoring purchase loyalty is useful for assessing the impact of marketing programs on consumer purchase behaviour, it ... involves looking backward at what has happened.* Therefore it should be noted that this cannot be considered an indicative measure of market trends. Contrastingly though the concept of keeping records of consumer commitment allows organisations to look forward and anticipate market changes and to form opinions and strategies as deemed appropriate. Youjae and Suna (2004) have suggested that accumulation of investments in knowledge of a particular brand can lead to the repurchase of that brand as customers do not want to form a new relationship with a different brand. Brand loyalty is also partially influenced by awareness, associations and quality, three other dimensions of consumer-based brand equity. It is important to note that brand loyalty is not always explained by awareness, associations and quality. In many cases as outlined by Aaker (1991) brand loyalty occurs independently from these three elements and at times the associations are unclear.

Aaker (1991) presents a hierarchical model of brand loyalty which suggests that multiple levels of brand loyalty exist within different contextual situations, see Figure 2.3. Specifically he discusses six categories. The lowest category 'switchers/price sensitive indifferent' represents the non-loyal consumer who perceives each brand to

be adequate and hence brand name has little effect on purchase behaviour. Products on sale or convenient products are their preference. Within a postgraduate university context, this may be where prospective students are pressured by some external influences like workplace professional development policies. Therefore these students are likely to make a selection that is convenient for them, which may include the type of delivery modes available or the university's geographic location. The second lowest category 'satisfied/habitual buyer' is best described as consumers who are satisfied with the product or at the very least not dissatisfied with it. Therefore they are not on the lookout for any alternatives. In a university context, it can be suggested that students are at the very least not dissatisfied with their course and university selection and support services that are made available by the university. This may also be viewed as the quality of their selection.

The third category 'satisfied buyer', are consumers who are satisfied and also have switching costs. These include cost of time, money and performance risk of switching. Competitors need to overcome these costs by inducing customers to switch. This inducement needs to be large enough to compensate the risks of switching. In a university context this category builds on from the previous one where students have levels of satisfaction with university and course selection. These students are likely to consciously continue to choose their current university and course by actively continuing their enrolment and through their subject selection. The second highest category 'likes the brand', are the consumers who truly like the brand and there tends to be some emotional attachment. This category within a university setting can be described as where students are satisfied with: their university and course selection; the support services provided by their institution; and the value for cost associated with these courses and services. The top category is the committed consumers. They pride themselves on using the brand, and it expresses who they are (Aaker 1991). An example within a university setting of this top category is proud Alumni who maintain strong links with their university.

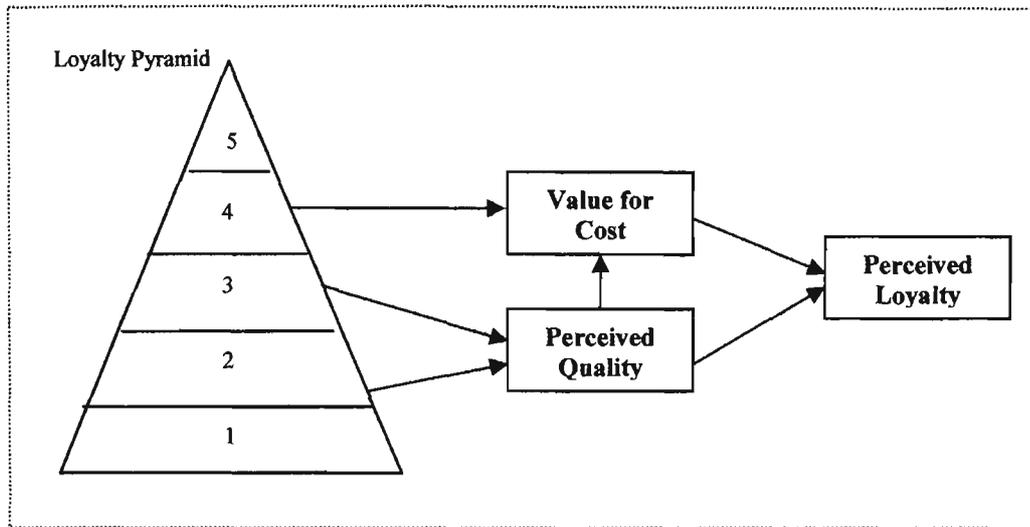


**Figure 2.3: The Loyalty Pyramid**  
 (Source: Aaker 1991, p.40)

Therefore, according to Figure 2.3 above, it also suggests that through the loyalty pyramid there is a close association between the different categories of loyalty and perceptions of quality. This is seen particularly with the second, third and fourth categories of loyalty. Categories two and three: the satisfied/habitual buyer no reason to change and the satisfied buyer with switching costs seem to also relate to consumers' perceptions of quality. The fourth category of likes the brand – considers it a friend suggests a connection with the other dimension of quality: value for cost. The loyalty pyramid presented by Aaker (1991) also implicitly suggests that there are two distinct dimensions of quality as reiterated by Netemeyer et al. (2004), and that the relationship is somewhat hierarchical between perceived quality and loyalty; value for cost and loyalty; and perceived quality and value for cost elements. The explicit direct associations between quality and value and loyalty as well as the mediated effect between quality and loyalty through value are well documented and supported within Parasuraman and Grewal's (2000) and Petrick's (2004b; 2004a) findings.

These associations between the quality, value and loyalty dimensions that are highlighted through Aaker's (1991) different categories in the brand loyalty pyramid,

the quality domain literature presented earlier, and the results from empirical research conducted by Parasuraman and Grewal (2000) and Petrick (2004b; 2004a) has led to the development of Figure 2.4 below. Figure 2.4 illustrates the links between the loyalty and quality literature outlined above diagrammatically.



**Figure 2.4: Loyalty and Quality Relationship**

Ceurvorst (1994, p.69) quotes Edwards Deming in 'Out of the Crisis':

*It will not suffice to have customers that are merely satisfied. An unhappy customer will switch. Unfortunately, a satisfied customer may also switch, on the theory that he could not lose much and might gain.*

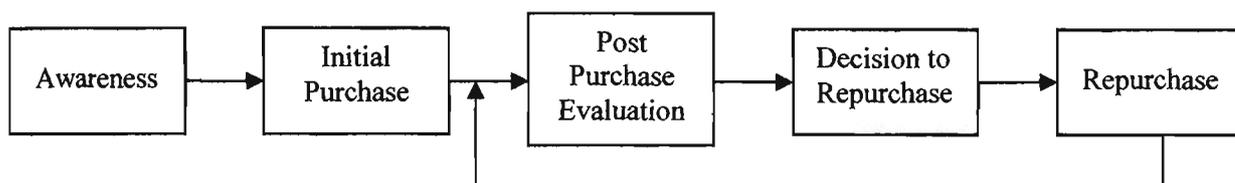
*Profit in business comes from repeat customers that boast about your product and service, and that brings friends with them... The profit in a transaction with a customer that comes back voluntarily may be 10 times the profit realised from a customer that responds to advertising and other persuasion.*

He concludes that commitment can be measured and more specifically the relationship between consumers and brands can be measured. This echoes to some extent what Aaker (1991) raises in his loyalty pyramid, and what Reichheld (2006) has called the loyalty effect. Reichheld (2006) adds that an organisation's net promoter score can be calculated and that this percentage score identifies the percentage of consumers who are avid promoters. The average score ranges from 5 to 10 percent (Reichheld 2006), however there are some industries that yield negative net promoter scores. Industries or organisations with negative net promoter scores are creating dissatisfied consumers who do not promote the organisation and are more

likely to switch. It is unclear whether universities yield a positive or negative net promoter score.

Griffin (2002) discusses brand loyalty from a purchase cycle perspective. The purchase cycle comprises of the: awareness; initial purchase; post purchase evaluation; decision to repurchase; and repurchase elements. Figure 2.5 below presents this cycle diagrammatically. This is essentially a generic replication of Figure 1.1 in Chapter 1.

**Figure 2.5: The Purchase Cycle**



*(Source: Griffin 2002)*

Figure 2.5 is explained with regards to a university setting. In this five step cycle there are two critical factors for loyalty to occur. These are the attachment to the product or service, and secondly repeat purchase. An attachment that a customer feels is shaped by the extent of the preference for the product or service, and the perceived differentiation of the product in comparison to all other available choices (Griffin 2002). There are four types of attachment that can occur and these are seen in Table 2.8 below.

**Table 2.8: Types of Attachment**

		<u>Product Differentiation</u>	
		No	Yes
<u>Buyer Preference</u>	Strong	Low attachment	Highest attachment
	Weak	Lowest attachment	High attachment

*(Source: Griffin 2002, p.21)*

As can be seen in Table 2.8, it is of great importance for universities to differentiate their courses from their competitors, and as such create a stronger buyer preference from students. Contrastingly though, no product differentiation in courses leads to the lowest value attachment by students, and will encourage them to look elsewhere

(Griffin 2002). She has also depicted four types of customer loyalty and these can be seen diagrammatically below in Table 2.9.

**Table 2.9: Types of Loyalty**

		<u>Repeat Purchase</u>	
		High	Low
<u>Relative Attachment</u>	High	Premium loyalty	Latent loyalty
	Low	Inertia loyalty	No loyalty

*(Source: Griffin 2002, p.22)*

The worst case scenario is when no loyalty is developed, meaning that for varying reasons customers do not develop loyalty for the product or service package, this low attachment towards the package and low repeat purchases signifies an absence of loyalty. Inertia loyalty can be depicted as a customer purchases out of habit, meaning that customers feel either some level of satisfaction or no real grievances or dissatisfaction. If a customer displays latent loyalty, they are influenced by situational rather than attitudinal influences which determine their repeat purchases. Premium loyalty is what universities should strive for as it has the most leverage. Therefore students are proud of discovering and using the product/service package offered by universities and become advocates for the product/service package to their peers and families (Griffin 2002). Griffin's (2002) definitions of the types of loyalty are consistent with Aaker's (1991) loyalty pyramid categories, however Griffin (2002) has classified the types of loyalty into four categories as opposed to Aaker's (1991) five.

The most common reasons for remaining loyal to an organisation are relational beliefs (Caldow, Debra 1998). She claims that there are two frames of reference concerning loyalty by customers and these are: friendliness and recognition given by the service providers. According to Caldow (1998) the main reason for customer switching behaviour is price, and service offered by competitors, as previously highlighted by Griffin (2002). This type of association may also exist within a university setting where the friendliness of academic, administrative and support staff may increase loyalty from the student base. Similarly, recognition in the form of positive feedback to students from academic staff may also lead to increased loyalty by students. This

may also decrease the level of student willingness to switch to another university. This in turn also relates back to Aaker's (1991) loyalty pyramid, as well as the loyalty quality relationship presented in Figure 2.4. Figure 2.4 has highlighted that satisfaction with the service influences consumers' perceptions of quality. These consumers perceived quality associations in turn influences loyalty directly and indirectly through their perceptions of value for cost. Therefore if the reasons for remaining loyal as outlined by Caldow (1998) and Griffin (2002) above, is also apparent within the higher education sector: course related experiences like the friendliness of academic, administrative and support staff; as well as positive course experiences in the form of positive feedback to students from academic staff in turn may affect student perceptions of quality, value for cost and loyalty towards the university and its courses, through student willingness to refer the university to others. Similarly, the level of students' course and course related experiences may also create a relationship between students and the university similar to that of being a friend. This level of loyalty as illustrated in Figure 2.4 also influences student perceptions of value for cost. The preceding discussion gives rise to the following two propositions:

*P<sub>3</sub>: Postgraduate business students' perceptions of perceived quality affect their perceptions of value for cost and loyalty.*

*P<sub>4</sub>: Postgraduate business students' perceptions of value for cost affect their perceptions of loyalty.*

## **2.5 Chapter Summary**

This chapter presented literature to support a refinement of the consumer-based brand equity construct labelled Student-Based Brand Equity. Student-Based Brand Equity has been identified to comprise of brand loyalty and the two dimensions of quality: perceived quality and value for cost. Aaker's (1991) consumer-based brand equity framework was also presented within this chapter as it is a well-established and an accepted framework of consumer-based brand equity, comprising of: brand loyalty; name awareness; perceived quality; brand associations; and other proprietary assets. Throughout investigating this literature it has become apparent that two components of Aaker's (1991) consumer-based brand equity framework: brand loyalty and perceived quality are deemed appropriate to gauge student course and course related

experiences and their resultant influence on their willingness to refer the course and institution to others; and to repurchase another course from the university. These two dimensions of Aaker's (1991) framework form the foundations of the Student-Based Brand Equity construct of investigation. Through this discussion four propositions were identified:

*P<sub>1</sub>: Postgraduate business students' perceptions of their university's reputation affect their perceptions of student-based brand equity (quality, value and loyalty).*

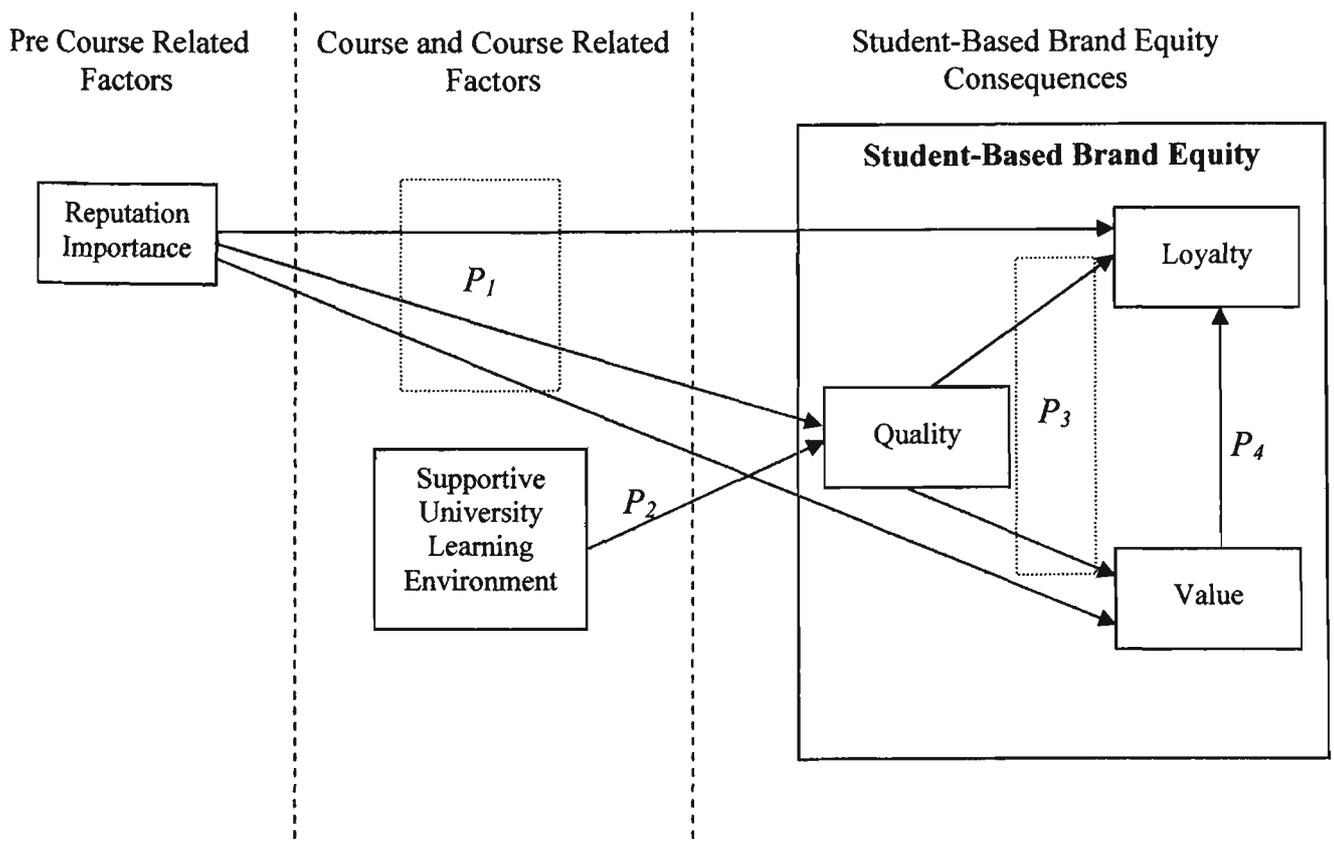
*P<sub>2</sub>: Postgraduate business students' perceptions of a supportive university learning environment affect their perceptions of quality.*

*P<sub>3</sub>: Postgraduate business students' perceptions of perceived quality affect their perceptions of value for cost and loyalty.*

*P<sub>4</sub>: Postgraduate business students' perceptions of value for cost affect their perceptions of loyalty.*

The operationalisation of these propositions is presented within Chapter 4, the conceptual model measurement and methodology chapter. However they can be reported diagrammatically as follows in Figure 2.6.

**Figure 2.6: Propositions 1 to 4**



This chapter also discussed what brand equity is, and why it is of importance to wide ranging organisations. The notion of elite branded and non elite branded universities was also presented in this chapter. Chapter 3 extends on this chapter by presenting the literature on the supportive university learning environment and student cultural value orientation.

## Chapter 3: Course Experience and a Student's Culturally-Anchored Value Orientation

*Perceptions of organisational support increase affective attachment to an organisation and strengthen expectations that greater effort will be rewarded (Orpen 1994, p. 407).*

*Ways of coping with uncertainty belong to the cultural heritages of societies, and they are transferred and reinforced through basic institutions such as the family, the school, and the state (Hofstede 2001, p. 146).*

Hofstede (2001, p. 451) described the intercultural encounters in education through the following examples:

*An American teacher at the foreign-language institute in Beijing exclaimed in class "You lovely girls, I love you!" Her students, according to a Chinese observer, were terrified. An Italian professor teaching in the United States complained bitterly about the fact that students were asked to evaluate his course formally. He did not think that students should be the judges of the quality of a professor. An Indian lecturer at an African university saw a student arrive 6 weeks late for the course, but had to admit the student because he was from the same village as the dean. Intercultural encounters in schools can lead to many perplexities.*

### 3.1 Objectives and Structure of the Chapter

This chapter extends on the literature review in Chapter 2 by presenting the literature that relates to a student's university course experience, especially if that experience represents a supportive university learning environment. It will also look at how students' culturally-anchored value orientation may shape their perceptions of their course and course related experiences. An overview of the perceived organisational support literature by identifying and discussing the perceived organisational support factors within a university context is presented. The perceived organisational support factors within a university context have been labelled a supportive university learning environment. A supportive university learning environment has been described as having three components: the learning community, academic support and administrative support. Each of these components of the supportive university

learning environment is also discussed. This chapter also draws on the literature from the student cultural value orientation domain. The literature on the uncertainty avoidance culturally-anchored value orientation, which has been identified in the previous two chapters as the cultural dimension of importance to this study because it gauges the level of environmental risk students perceive, is also presented within this chapter.

### **3.2 Students' Perceptions of Supportive Learning Environment Experiences: Perceived Organisational Support**

It is well documented that being a student is stressful and that there are a number of factors that can cause student stress. As discussed earlier in Chapter 1, factors that can cause stress include: living arrangements, making the transition to adulthood, coping with a university course (Morrison, J. 2001), students' learning styles, teaching styles, decision making processes (Gazella, Masten & Stacks 1998), socio-cultural adjustment, language and cultural related teaching and learning problems (Biggs, J. 2000). Hence it can be suggested that students are looking for a supportive university learning environment to reduce the stressors of being a student.

Pool (2000) claims that a supportive organisational culture describes the concept of perceived organisational support. This is where: challenging work is advocated, there is open communication, trust, innovation and cohesion between employees. The concept of perceived organisational support from a student perspective in a university context is both unique and complex, as the student-university relationship has two components. Students can be seen to be customers of the university in one sense, but can also be seen to be employees in the sense of a traditional apprenticeship context, where students are gaining certification of knowledge, skills and attributes. Therefore students are an active part of the service delivery process as previously discussed by Nguyen and LeBlanc (2001) in Chapter 2. This is also supported by Yoon, Seo and Yoon (2004, p. 395) where they state *...external customers are co-producers or partial employees in the service delivery. Thus, the organisation, immediate supervisor, and even the customer in these firms should provide support.* They (2004,

p. 396) also add *...as employees perceive greater organisational support, their sense of obligation to reciprocate with helpful behaviours towards the organisation increases*. It is from this perspective that students are partial employees in the traditional apprenticeship role context that perceived organisational support of universities is being discussed within the literature and this thesis.

Therefore within a university setting perceived organisational support includes: challenging subject material and assessment within courses, which relates to good teaching strategies; the need for open communication, trust and cohesion: between students; between students and academic staff; and between students and administrative and support staff, to create a supportive educational environment. These elements relate to a university's community dedicated to learning and whether the university encourages citizenship behaviours from a student perspective.

Rhoades and Eisenberger (2002) describe perceived organisational support in a similar way to Pool (2000). Rhoades and Eisenberger (2002) state that perceived organisational support is the assurance that assistance will be available from the organisation when needed to perform one's tasks effectively and to handle stressful situations. This definition by Rhoades and Eisenberger (2002) builds upon a series of previous research including: Eisenberger, Huntington, Hutchinson and Sowa (1986) and Eisenberger, Fasolo and Davis-LaMastro (1990). Eisenberger et al. (1986) and Eisenberger, Fasolo and Davis-LaMastro (1990) depict perceived organisational support to be the employees perceptions about the degree of recognition received from the organisation for their contributions; as well as their perceptions about whether the organisation cares about their well-being. Valentine, Greller and Richtermeyer (2006, p. 587) state that: *Organisations can build employees' positive perceptions of the workplace by emphasising ethical practices that support the welfare of stakeholders and that increases congruence between personal and organisational values*. Therefore within a university setting, universities may be able to build positive perceptions for students by emphasising ethical practices that support students. These practices may include appropriate support services like library services; computer and technology services; career counselling; and learning support services. This may also align student and university values and in doing so may

increase students' perceptions of the quality of their course experience. If this assertion is correct it may also increase student loyalty towards the university.

The concept of perceived organisational support has also been described as: *...a felt obligation to care about the organisation's welfare and to help the organisation reach its objectives as well as ...the caring, approval, and respect connoted by perceived organisational support should fulfil socio-emotional needs, leading workers to incorporate organisational membership and role status into their social identity* (Rhoades & Eisenberger 2002, p. 699). It has also been discussed within the literature as performance-reward expectancies (Rhoades & Eisenberger 2002). This is also consistent with earlier research conducted by Eisenberger et al. (1986) and Eisenberger, Fasolo and Davis-LaMastro (1990) and Orpen (1994). Orpen (1994, p. 407) states that:

*...perceptions of organisational support increase affective attachment to an organisation and strengthen expectations that greater effort will be rewarded, employees who think their organisations support them should put forth more effort and thus perform better than employees who think their organisations do not support them.*

Therefore within a university context, students can be seen as having a role analogous to that of the employee as previously identified within this chapter. On this basis students can develop an obligation towards the university to help reach its educational goals, which in turn directly relates back to student achievements, in the form of knowledge, skills and attitudes certified; as well as improving the university's prospective applicant pool through students' recommendation and referral behaviours, which they may feel obliged to do in return for the services and support provided by the university. The care and respect reflected by the university through its academic, administrative and support staff may also encourage students to become active members within the university's learning community where: students' performance-reward expectancies may also be strengthened through detailed academic feedback on student assessment tasks, outlining areas for future improvement and justification in grade allocations. In doing so, this may also increase students' satisfaction with the university and in turn create positive perceptions of their course experiences and quality of the university, which in turn may increase loyalty towards the university.

This is also likely to encourage reciprocity. Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades (2001) describe reciprocity as when 'Person A' treats 'Person B' well, 'Person B' feels obliged to return the favourable treatment. They add that there are many types of benefits exchanged like impersonal resources: money, services and information or socio-emotional resources: approval, respect and liking. Eisenberger et al. (2001), Mowday, Porter and Steers (1982), Rousseau (1989; 1990) and Wayne, Shore and Liden (1997) suggest that this reciprocating/exchange theory may also apply within an organisational context between employees and employers. This reciprocity or exchange theory may also be found within a student-university relationship context. This relationship may produce benefits from both: impersonal resources like students' tuition fees for knowledge gained and certified from the university; and socio-emotional resources like approval and respect, where students may seek approval from the university's staff members and in return staff members reciprocate by addressing student questions respectfully.

Orpen (1994) and Eisenberger et al. (2001) found that the theory of exchange moderated the perceived organisational support and effort relationship, and that perceived organisational support was related to job performance. Therefore students' perceptions of university support which may include learning supports in a university community atmosphere, as well as helpful academic, administrative and support staff, may increase student attachment to the university. Students' course experiences may also improve as a result of their perceptions of helpful academic, administrative and support staff. Academic support may be visible as providing constructive feedback to students during class time as well as on assessments. Similarly, helpful guidance on administrative procedures, like enrolments, census dates and other university policies by administrative staff answering student queries. Support staff like library and information technology staff may also create positive student perceptions about the university. Improved course experiences through helpful staff may in turn create greater quality perceptions of the university leading to increased loyalty towards the university, a greater willingness to refer the course and institution to others. This is consistent with the perceived organisational support literature (see: Eisenberger et al. 2001; Eisenberger, Fasolo & Davis-LaMastro 1990; Eisenberger et al. 1986; Orpen 1994; Rhoades & Eisenberger 2002).

*A nurturing climate and the commitment to employees that engenders it have been shown to help firms garner loyalty, dedication, effort, and initiative from their workers, and also to create a sense of community that facilitates collaboration* (Lee, J. & Miller 1999, p. 580) This is similar to what Rhoades and Eisenberger (2002, p. 709-710) state: *...strong relationships with affective commitment, job satisfaction, positive mood at work, desire to remain with the organisation and turnover intentions ...employees strongly reciprocate indications of the organisation's caring and positive valuation by increasing their emotional bond to the organisation.* Rhoades and Eisenberger (2002, p. 711-712) add that: *...the extent to which the organisation values employees contributions and cares about their well being they reciprocate such perceived support with increased commitment, loyalty and performance.* Similar results were also found by Yoon, Seo and Yoon (2004). From a student perspective in a university setting, the extent that universities value student contributions, for example incorporate their experiences into lecture and tutorial activities, they may indeed reciprocate such perceived support through increased loyalty and in becoming advocates for the university within their peer and family groups.

Ferres, Connell and Travaglione's (2004) findings also somewhat mirrored those of Lee and Miller (1999) and Rhoades and Eisenberger (2002) in the sense they found that co-worker trust enhanced the perception of organisational support. Ferres, Connell and Travaglione (2004, p.616) further stated that: *...employees are less likely to want to leave, and are more likely to be emotionally attached to the organisation when greater trust in co-workers is evident.* This notion of co-worker trust in a university context may be described as the strength of a student learning community. It has been documented within the university literature domain that universities are struggling to create a 'socio-emotional connection' between the university and students.

Willits, Janota, Moore and Enerson (1996) have stated that both colleges and universities have come under scrutiny in regards to creating a healthy and productive environment which encourages intellectual development, scholarly achievement and personal growth. As Strommer (1999, p. 41) states:

*In the majority of our colleges and universities, students are unattached, uninvolved. Fewer live on campus; fewer participate in extracurricular*

*activities. Class absenteeism has reached epidemic proportions in some institutions, particularly in large lecture classes.*

Smith (2001) claims that there are more than 400 colleges and universities within the USA that have learning communities. Therefore the lack of connectedness between the university and its student base may indeed affect students' course experiences and their perceptions of academic, administrative and other (library/information technology) supports as well as affecting their perceptions of the university's quality. This in turn may also affect student willingness to refer or enrol in further courses with the university. Hence, the greater the emotional attachment of students towards their university, the greater the university learning community becomes as suggested by Ferres, Connell and Travaglione (2004). In other words, helpful academic and support staff which include: library; computer/information technology; counsellors; administration and so on; may indeed increase this 'emotional attachment'. The notion of emotional attachment with an organisation suggests that perceived organisational support may also be related to organisational citizenship behaviour.

Moorman, Blakely and Niehoff (1998) found that perceived organisational support was related to some forms of organisational citizenship behaviour, which includes interpersonal helping. This is also consistent with Eisenberger et al.'s (2001) description of reciprocation. Similar results were also reported in Naumann, Bennett, Bies and Martin's (1998) study. Naumann et al. (1998) found that organisational support mediated the relationship between employee perceptions of justice and an organisation's outcomes, or the commitment displayed by employees towards the organisation. They also suggest that organisational support accounts for the robust relationship between justice perceptions and organisational citizenship behaviour and organisational commitment. They further claim that perceptions of justice are an influence on employees' perceptions of being valued by their organisation which in turn prompt employees to reciprocate with greater commitment to the organisation.

These results reported by Moorman, Blakely and Niehoff (1998) and by Naumann et al. (1998) were mirrored in later studies by Huang, Jin and Yang (2004) and Chen, Aryee and Lee (2005). Huang, Jin and Yang (2004) add that culture may affect the perceptions of satisfaction. Similarly, Chen, Aryee and Lee (2005) found that

perceived organisational support was directly related to organisational citizenship behaviour.

Organisational citizenship behaviour has been defined by Organ (1988, p. 4) as:

*...individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation. By discretionary, we mean that the behaviour is not an enforceable requirement of the role or the job description, that is, the clearly specifiable terms of the person's employment contract with the organisation: the behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable.*

Turnipseed (2002) presented a slightly different definition of organisational citizenship behaviour to that of Organ (1988). Turnipseed (2002, p.1) claims that organisational citizenship behaviours are: *Extra-role behaviours that are discretionary, going beyond those measured by formal job evaluations, and which are organisationally desirable.* He explains that these behaviours are not tied to reward systems. Turnipseed and Murkison (2000) found that organisational citizenship behaviour is affected by national culture. Therefore in a university setting, a supportive university learning environment consists of the university's learning community, academic support (good teaching) and administrative support (the helpfulness of non-academic support staff). The notion of learning community, academic support through good teaching and administrative support will now be addressed.

### **3.2.1 Learning Community**

Burgoyne and Reynolds (1997, p.6) state that the term learning community: *...is something of an umbrella term to describe learning situations where a group of people come together to meet specific and unique learning needs and to share resources and skills.* According to Scharff and Brown (2004) the concept of learning community dates back to the 1920s and Alexander Meiklejohn's experimental college at the University of Wisconsin as a mechanistic way to prepare students for democratic citizenship. They elaborate further by claiming that Meiklejohn was to accomplish this through the basis of community and a seamless interface between the

living and learning environment (see: Gablenick et al. 1990; Shapiro, N. S. & Levine 1999). Scharff and Brown (2004) also state that the typical mission for learning communities is to create a sense of community (see: Lenning & Ebbers 1999; Shapiro, N. S. & Levine 1999). Other goals of learning communities are to:

*...(1) incorporate and value diversity, (2) share a culture, (3) foster internal communication, (4) promote caring, trust, and teamwork, (5) involve maintenance processes and governance structures that encourage participation and sharing of leadership tasks, (6) foster the development of young people, and (7) have links with the outside world (Scharff & Brown 2004, p. 300).*

It has also been suggested by Scharff and Brown (2004) that learning communities have two dimensions that are important for higher education: 'primary membership and primary form of interaction'. They describe primary membership as a focus on the commonalities between group members. They also state that colleges and universities have faculty learning communities and student learning communities. The primary form of interaction has been discussed by Scharff and Brown (2004) as having three categories: physical interaction, virtual interaction and correspondent interaction. These categories can characterise any of the primary membership types. They also note that the learning community: *...becomes a learning environment that should lead students to as many of the following objectives as possible (Scharff & Brown 2004, p. 302).* These objectives include: acquiring a deeper understanding of materials, a developed ability to find similarities in disparate subjects, transport knowledge from one discipline to another, increased interaction between students and between students and staff in a learning centred community that is not classroom bound, participate in collaborative learning and to explore and understand diverse views. They also claim that learning communities may enrich student learning by staff being better equipped to assess student learning through mutual support.

Scharff and Brown's (2004) description of a learning community is consistent with the earlier research of Dillon (2003). Dillon (2003) also agrees that learning communities consist of three components: academic, social and physical. He describes the academic component as curriculum and teaching; the social component as interpersonal relationships established within the community; and the physical as the actual place where the community lives and learns. He (2003, p. 198) adds that: *These three components are designed to interact in such a way that they facilitate*

*professional, ethical, and civic developments in students.* He forms the conclusion that:

*The success of any Learning Communities program depends on breaking down traditional university "turf boundaries". Learning Communities pose a challenge to a model in higher education that emphasises departmentalisation and specialisation, lecture-exam format classrooms, a non-integrated curriculum, and a living environment that blindly places entering students into residence halls where they have little significant contact with the wider community (Dillon 2003, p. 198).*

Another way of conceptualising a learning community is presented by Willits et al. (1996) who state that during the early 1990s Ernest Boyer who held the presidency of the Carnegie Foundation for the Advancement of Teaching developed a set of principles for a civil community of learning. Boyer (1990) proposed six essential principles that were designed to capture the social and academic dimensions of university/college campus life. These were: a purposeful community, an open community, a caring community and a celebrative community. Willits et al. (1996, p. 19) describe a purposeful community as: ... *a place where the intellectual life is central and where faculty and students work together to strengthen teaching and learning.* They (1996, p. 19) further state: ... *It is in the classroom where a learning community begins, although it should also pervade all aspects of campus life – residence halls, departments, and student activities.*

An open community within a university/college context should be characterised as an open, honest community where freedom of expression is uncompromisingly protected and civility affirmed (Willits et al. 1996). They (1996, p. 21) claim that:

*The University must not engage in censorship so as to make ideas safe for students; its role is to prepare students so that they are safe for ideas... the university should define high standards for itself and denounce the violation of those standards in clear, unequivocal terms.*

A just university community has been described by Boyer (1990) in Willits et al. (1996, p. 21) as:

*...a place where the dignity of all individuals is affirmed and where equality of opportunity is vigorously pursued...universities are to be just communities, prejudice in all its forms must be challenged and every college should develop a comprehensive plan to strengthen pluralism, within a community of learning.*

A disciplined university community has been described by Willits et al. (1996, p. 21) as: *...a place where individuals accept their obligations to the group and where well-defined governance procedures guide behaviour for the common good.* A caring university community has been depicted as a place where individual well-being is supported and where service to others is also encouraged (Boyer 1990; Willits et al. 1996). Willits et al. (1996, p. 22) further describe a caring community as:

*...the key to everything because while colleges should be purposeful, open, just and disciplined – the unique characteristics that will make these objectives work, the glue that holds it all together, is the way the members of the community relate to one another.*

A university has been described as having a celebrative community where the institution's heritage is remembered and there are rituals that affirm the tradition (see: Boyer 1990; Willits et al. 1996). It has also been suggested that if celebrations have real significance and are also seen as fun help to keep memories alive and sustains a sense of community. It is also important to continually re-create community with each new student intake (see: Boyer 1990; Willits et al. 1996).

Banta (2001) describes learning communities in a more practical sense, as bringing students together for two or more classes to encourage relationships between students and so students can in turn begin to work collaboratively on academic matters within the classroom as well as outside the classroom. She further claims that learning communities have a tendency to involve first year students typically fewer than 25 students in a seminar situation maximising the faculty-student interactions. She further claims that students become more actively engaged in the learning process and in turn students spend more time studying and contemplating intellectual concepts. It has also been suggested that in small seminar sessions, staff can communicate high expectations as well as provide frequent assessment and prompt feedback.

Critten (1996), similar to Banta (2001) also describes a learning community in a university classroom context as the tutor group being the basis of the learning community where the: *...tutor team would not make decisions without everyone involved and that this would also be...the learning community of students and tutors* (Critten 1996, p. 15). He found that: *Once trust within the tutor group and the wider community grew each began to ask for what he/she wanted from others in the*

*community* (1996, p. 15). Critten (1996) also notes that people were then listening to one another and there was a 'possibility of real dialogue breaking out'. Critten (1996, p. 17) also claims that:

*The university of the future is likely to be more like a community of local colleges, students of all ages, and companies, all sharing a common pool of resources. I envisage organisations "buying into" the facilities offered by the local community university, not just to provide routes of development and accreditation for individual members (although it will continue to do that), but to develop and have recognised learning as it unfolds at the organisation's core.*

Banta (2001, p. 3) adds that:

*While learning communities on many campuses are still experiments involving small segments of the freshman population, learning communities at the Pennsylvania State University and Indiana University-Purdue University (IUPUI) are for everyone – at least all first year students.*

Banta (2001) describes the learning communities at both Penn State University and the IUPUI as somewhat revolutionary. Penn State designed learning communities to enhance general education, whereas IUPUI was hoping to increase student learning and persistence. Furthermore the faculty governance bodies at Penn State and the IUPUI specified that careful assessment of outcomes must be a fundamental component of the learning community initiative. Banta (2001, p. 16) quotes the work of Vince Tinto on the impact of learning communities:

*...longitudinal research on learning communities at three very different institutions confirms the intuitive appeal of these new structures ... students in learning communities spent more time on task than did students in traditional stand-alone courses. Learning community participants persisted at higher rates and reported stronger feelings of responsibility for their own learning and for that of their peers.*

### **3.2.2 Academic (Good Teaching) Support**

Biggs and Watkins (2001) claim that there are universal principles of good teaching. These principles involve engaging students within the learning tasks at appropriate levels. The methods of student engagement are dependent upon the most appropriate means for that culture and the creation of an appropriate learning and teaching climate. Tang and Biggs (1996) add that students will attempt to do what they

perceive is required of them and hence teachers need to make their teaching and student learning requirements/assessments as clear as possible.

The notion good teaching tends to have a normative stance within the literature (see: Biggs, J. 1994, 2000; Biggs, J. & Moore 1993; Ramsden 1991, 1992; Ramsden & Martin 1996). There is the assumption that good teaching is when good learning occurs. This implicitly implies that student satisfaction will flow on from this normative view of good teaching. Ramsden (1991) claims that there have been many attempts to identify and clarify a preferred teaching style. He developed a framework for effective teaching in a higher education context, which incorporated six key principles. These principles are: interest and explanation; concern and respect for students and student learning; appropriate assessment and feedback; clear goals and intellectual challenge; independence, control and active engagement; and learning from students. From this basis he developed performance indicators for teachers that he called the Course Experience Questionnaire (CEQ). The development of the CEQ was guided by the following five criteria: coverage of all the important aspects, of the quality of teaching and curriculum, about which students can form accurate judgements; a high degree of validity and freedom from manipulation; economy of production and administration; general discipline, referring to particular teaching methods; and the ability to differentiate between student perceptions of academic units at several levels of aggregation (Ramsden 1991).

The CEQ was found to be a successful instrument in its coverage, general applicability, freedom from manipulation and its economy of administration during its Australian national trial (Ramsden 1991). It was also found to be both a valid and useful instrument for describing the performance of academic units through its item factor analyses according to Ramsden (1991). The CEQ has been adopted by the Graduate Careers Council of Australia and has been administering it to all graduates from Australian universities since 1993 (see: Ainley & Johnson 2000; Hillman & Johnson 2000; Stavrakis 2001). It has also become apparent that many Australian universities are now requiring student views to be surveyed at either departmental level or faculty level. RMIT, Victoria University and the University of Melbourne are also using the CEQ as part of their quality assurance program according to Stavrakis (2001).

Martens and Prosser (1998) state that there is a growing consensus that high quality teaching is not just about high quality presentation of content, nor just about implementation of high quality teaching skills. They agree with Ramsden's (1992) fundamental view of teaching and learning, that high quality teaching is context related, uncertain and continuously improvable. Their statement that universities need to ensure that this system is open enough to allow for variation between disciplines, years of study and compulsory and elective subjects, is critical. According to Martens and Prosser (1998, p. 30) quality assurance of teaching and learning could be characterised as: *...an approach based on ensuring that the subject as a whole, and not just the teachers, are contributing to the improvement of student learning over time.* Good teaching is therefore seen in terms of enhancing the relationship between the student and the subject. Not just in terms of how individual staff members are performing. Ultimately the focus is on the continuous improvement of student learning.

### **3.2.3 Administrative (Helping) Support**

As previously discussed in section 3.2, Moorman, Blakely and Niehoff (1998), Naumann et al. (1998), Huang, Jin and Yang (2004) and Chen, Aryee and Lee (2005) claim that perceived organisational support is directly related to organisational citizenship behaviour. In a university context perceived organisational support as previously identified can be conceptualised as universities providing challenging subject material and assessment within courses, open communication channels between students and university staff to create a supportive educational environment, and students reciprocate by actively engaging in recommending the university and its courses within their social circles.

Organ, Podsakoff and Mackenzie (2006) describe organisational citizenship behaviour as staff helpfulness and conscientiousness. They add that an example of staff helpfulness includes: *helping a new worker learn the job or helping an overloaded worker catch up with the workflow or solve a problem* (Organ, Podsakoff & Mackenzie 2006, p. 18). Staff conscientiousness has been further described by Organ, Podsakoff and Mackenzie (2006) as staff compliance. It has been argued by

Podsakoff, Mackenzie, Paine and Bachrach (2000) that the organisational citizenship literature can be organised into seven common themes or dimensions: helping behaviour, sportsmanship, organisational loyalty, organisational compliance, individual initiative, civic virtue and self development.

It is the helping behaviour dimension of organisational citizenship that is of interest within this thesis, particularly the level of administrative support provided to students by administrative and other support staff like library and information technology staff. In other words the level of assistance received from administrative support staff by students to resolve their problems, which may include: assistance in learning how to operate electronic journal databases, how to access the student email service, how to connect to webct and other web pages etc; and or administrative problems like enrolments, change of subject/course, change of address, student policies, leave of absence etc.

Podsakoff et al. (2000), like Borman and Motowidlo (1993; 1997), George and Brief (1992), George and Jones (1997), Graham (1989), Organ (1988; 1990a; 1990b), Smith, Organ and Near (1983), Van Scotter and Motowidlo (1996) and Williams and Anderson (1991), reiterate that helping behaviour is an important component of citizenship behaviour. Podsakoff et al. (2000, p. 516) define the helping behaviour dimension of organisational citizenship as: *voluntarily helping others with, or preventing the occurrence of, work related problems*. Podsakoff et al.'s (2000) helping behaviour definition has been extended on by Organ, Podsakoff and Mackenzie (2006). The definitions of helping behaviour presented by Podsakoff et al. (2000) and Organ, Podsakoff and Mackenzie (2006) can be split into two sections: helping others with work related problems (see: Organ's (1988; 1990b) altruism, peacemaking and cheerleading dimensions, Graham's (1989) interpersonal helping, Williams and Anderson's (1991) OCB-I, Van Scotter and Motowidlo's (1996) interpersonal facilitation, and George and Brief's (1992), George and Jones' (1997) helping others constructs); and the second revolves around the notion of preventing the creation of problems for co-workers (see: Mackenzie, Podsakoff & Fetter 1993; Mackenzie, Podsakoff & Rich 1999; Podsakoff, Ahearne & Mackenzie 1997; Podsakoff & Mackenzie 1994).

Therefore in a university setting, helping others with work related problems, the first part of Podsakoff et al.'s (2000) and Organ, Podsakoff and Mackenzie's (2006) helping behaviour dimension includes administrative support staff assisting students with day to day queries and concerns. Examples may include: university administration staff answering questions about: subject enrolments, lecturer/tutor availability, timetable concerns etc.; library staff assisting students with internet search engines, electronic journal database operations, borrowing audio visual/text etc.; and information technology support to students like student login and passwords, student email access, webct platform assistance etc.

The notion of preventing the creation of problems for co-workers, the second half of the helping behaviour dimension (Organ, Podsakoff & Mackenzie 2006; Podsakoff et al. 2000), within the university-student relationship refers to university support staff minimising any inconvenience to students. Examples may include: university administration staff notifying students: that their selected tutorial has been cancelled, of enrolment location and time changes, of office closure times etc.; library staff notifying students of changes in: borrowing regulations, operation hours, support services like training sessions etc.; and information technology staff notifying students of network unavailability in advance to minimise any problems to students from an access perspective. By the university's administrative support staff encouraging student citizenship behaviour this is highly likely to lead to students' reciprocation through engaging in positive word of mouth recommendations of their university and its courses. The preceding discussion gives rise to the following proposition.

*P<sub>5</sub>: Postgraduate business students' perceptions of a supportive learning community affect their perceptions of supportive teaching and supportive administrative services.*

### **3.3 The Impact of Students' Culturally-Anchored Value Orientation**

As identified in Chapters 1 and 2, students' cultural value orientation also impacts upon their perceptions of academic and administrative supports provided by the university. Students' perceptions of academic support and administrative supports may be shaped by their course experiences, which includes their perceptions of

academic support through good teaching and the helpfulness of administrative support, which includes: administrative, library and information technology staff. Therefore in a business student context, Sadler-Smith (1999) identified the challenge for business educators and human resources within organisations as acknowledging individual differences, and using these differences constructively within a teaching and learning context. Riding and Rayner (1999) share similar views to Sadler-Smith (1999), where they (1999, p. 179) state that:

*A key issue underlying much concern for school effectiveness, is that too much teaching and learning remains an intuitive, hit-and-miss management of the relationship between learning and behaviour. This is also true of the management pedagogy, the integration of curriculum processes and content, and more particularly, the individual learning style of students in the learning context. A major implication of the work being carried out in the field of individual differences, is to flag up the challenge of achieving authentic differentiation in the curriculum. This is perhaps succinctly and poignantly illustrated in the ideas that the construct of learning style may very well offer a way forward in teaching the hard to reach and reaching the hard to teach!*

This is an example of the challenges educators face when attempting to create a supportive university learning environment.

It has been well documented within the literature that students who enter university have certain biases towards learning and acquiring knowledge (see: Ballard & Clanchy 1997; Biggs, J. B. 1996; Chan, D. & Drover 1997; Watkins & Biggs 2001). The forces that impact upon student behaviours and knowledge include their personalities, abilities and previous educational experiences. Student cultural traditions is another key determinant on what is perceived to be good learning and teaching strategies (see: Ballard & Clanchy 1997; Biggs, J. B. 1996; Chan, D. & Drover 1997; Dahlin, Watkins & Ekholm 2001; Ginsberg 1992; Kirby, Woodhouse & Ma 1996; Macrae 1997; Watkins & Biggs 2001). There are some similarities when looking at the international higher education arena, however they do appear to be superficial. A closer examination of the international higher education sector reveals that there are often dissimilar approaches to teaching and learning. These different approaches to teaching and learning are often the effect of different cultural traditions.

Different researchers have investigated student culturally-anchored values and their relationships with learning and teaching strategies (see: Ballard & Clanchy 1997;

Barron & Arcodia 2002; Berrell, Wrathall & Wright 2001; Biggs, J. 1994, 2000; Biggs, J. & Moore 1993; Biggs, J. B. 1996; Chan, D. & Drover 1997; Chan, S. 1999; Cortazzi & Jin 1997; Dahlin, Watkins & Ekholm 2001; Du-Babcock & Babcock 2000; Furnham 1997; Ginsberg 1992; Harris, R. 1997; Kirby, Woodhouse & Ma 1996; Lee, W. O. 1996; Macrae 1997; Mok et al. 2001; Salili 2001; Stevenson & Stigler 1992; Volet & Renshaw 1996; Watkins & Biggs 2001; Woodrow & Sham 1997, 1998). Ballard and Clanchy (1997) found that some of the obvious differences that arise in the international higher education sector are: class sizes, resources, facilities available within universities, and classes are conducted in a foreign language. The most significant difference that Ballard and Clanchy (1997) found was the ways in which teachers conduct their classes, and the ways in which students are trained to study. Within the Anglo-Australian education system, students change their knowledge acquisition methods over the course of their education. It has also been suggested that a similar continuum of attitudes is apparent in other cultures. Nevertheless they do vary significantly according to culture. Some examples that Ballard and Clanchy (1997, p. 14) quote include:

*'I do not invent', Confucius explains, 'but merely transmit; I believe in and love antiquity.'*

*'When I am in class and the professor asks questions, and we have to discuss, I never say anything. Often I think of answers, but I cannot express my ideas well, so I wait for someone else to speak for me. I have never asked a question. The other students ask many questions and even argue with the professor. I could never do that, because I do not think that is right behaviour. I do not want to become like Australian students.'* (2<sup>nd</sup> year Thai undergraduate); and

*'We might have doubts about what the teacher said in class, but we choose not to ask him in class about that, mainly for two reasons. First, because of our culture, we must be humble, i.e. we must not show that we know more than our colleagues in class. Secondly, by asking questions in class, we might be taking the risk of offending the teacher in front of the whole class. We might be exploring uncharted areas, where the very questions we asked, had questioned the competency of the teacher. In some cases, if the teacher was not honest enough to admit incompetence, it would be very offensive and very damaging. So we play it safe.'* (Burmese postgraduate student).

The above student quotes highlight the different attitudes and cultural behaviours held by students and how these attitudes and behaviours highlight differences in perceptions of a supportive university learning environment. It is the uncertainty

avoidance culturally-anchored value orientation that becomes a significant factor in the examples above. The uncertainty in the types of questions to ask the teacher in front of the class is one example as to avoid offending the teacher. Another is the uncertainty of being able to express oneself effectively. Ballard and Clanchy (1997) also identified that student culture also affects their academic work style. Asian students have distinct learning characteristics which include: attending all classes, taking detailed notes, seldom contributing to class discussions, and only ask questions on a one-to-one basis for clarity of understanding. These results were consistent with research conducted by Biggs (2000; 1996), Chan and Drover (1997), Dahlin, Watkins and Ekholm (2001), Watkins and Biggs (2001) and Ginsberg (1992). These researchers have identified the typical characteristics of Asian students and these are: taking a low profile, rarely asking questions or volunteering answers, and not making any public observations or criticisms. This is also reflected in the student excerpts from Ballard and Clanchy (1997) above. Ginsberg (1992, p. 6) provides a Chinese example: *...knowledge is not open to challenge and extension (by students arguing with their instructors)*. Within this cultural context, the teacher is the authority who decides what knowledge is to be taught and students accept it and learn that knowledge (Ginsberg 1992). Biggs (2000), Cortazzi and Jin (1997), Ballard and Clanchy (1997), and Furnham (1997), also state that international students also face the added challenges of: differences between home and university cultures, cultural adaptation problems which include socio-cultural adjustment, language, and learning/teaching problems. These researchers also encourage teachers to be aware that there are differences in academic cultures and expectations. This is also an effective illustration of differences in students' perception of academic support.

Woodrow and Sham (1997; 1998) conducted studies within a British setting which is not homogeneous. They identified differences in learning styles between *British White* and *British Chinese* students in regards to their attitudes towards learning and teaching strategies. These findings were consistent with Harris (1997), Chan (1999), Biggs (1994; 2000), Stevenson and Stigler (1992), Lee (1996), Salili (2001), Mok et al. (2001), Berrell, Wrathall and Wright (2001), Du-Babcock and Babcock (2000), and Biggs and Moore (1993). These differences in learning styles within non-homogeneous classrooms was also replicated in Australian based studies with similar outcomes (see: Barron & Arcodia 2002; Volet & Renshaw 1996).

Pennington and O'Neil (1994) claim that there has been a concern about the quality of students' learning experience in the United Kingdom since the late 1980s. The issue of ensuring competence in teaching and learning has also been central to developing programs which has indicated a need for explicit policies and practices of teaching. These views have also been supported by Ellington and Ross (1994), Hodgkinson (1994), and Thomas and Harris (2000). Ramsden (1992) claims that most lecturers assume they have a more appropriate knowledge base about what constitutes good teaching performance than what they actually do. He adds that there are three key processes in effective teaching at a higher education level and they are: teaching as a means of transmitting knowledge from academic staff to students; managing student activity; and making it possible for students to learn subject content. Ramsden (1992) concludes that good teaching entails a great deal of flexibility throughout the aforementioned processes. Therefore what constitutes satisfaction with teaching performance may also differ according to student cohorts. These student cohort differences may also influence perceptions of academic support, and more generally what is considered a supportive university learning environment.

Within the literature it is apparent that there are four well-documented ways to measure culture: Kluckhohn and Strodtbeck's (1961) six cultural value orientations; Hall's (1959; 1976) low context and high context societies; Hampden-Turner and Trompenaars (1993) cultural classification; and Hofstede's (1980; 1991; 1994; 2001) cultural dimensions. All of these approaches to culture, study a restricted set of concepts that are considered universal and therefore generalisable (Sparrow & Wu 1998). Clearly one of the most commonly cited and used instruments is Hofstede's cultural dimensions (see: Harvey, F. 1997; House & Javidan 2004; Lu, Rose & Blodgett 1999; Redpath & Nielsen 1997; Robertson 2000; Robertson & Hoffman 2000; Tsui & Windsor 2001; Ward, Pearson & Entrekkin 2002). Hofstede's (1980; 1991; 1994; 2001) cultural dimensions were also the basis of the Global Leadership and Organisational Behaviour Research Project (GLOBE) (House & Javidan 2004). Greater detail about the GLOBE study is presented in Chapter 4. As discussed earlier in Chapter 1, it is the uncertainty avoidance culturally-anchored value orientation that is of interest within this thesis as it is a way of identifying price conscious consumers. Uncertainty avoidance is the extent that societies attempt to avoid uncertainty by

referring to the established norms, rituals and bureaucratic practices (House & Javidan 2004).

Uncertainty avoidance has also been described as being associated to future unpredictability (Hofstede 1991, 1998), usually expressed via outlets including nervous stress. In other words to avoid risks, the creation of complex rules in order to deal with any possible situation are developed. Countries that have a low uncertainty avoidance score are more comfortable with ambiguous situations and are more relaxed about change and innovation (Hofstede 1980, 1991, 1994). The Anglo-Saxon and Nordic groups of countries, score low on this dimension; the African and Asian groups medium to high; the Latin American, Latin European, and Mediterranean countries score high (Hofstede 1991). The only exceptions are Hong Kong and Singapore, which score lower in this dimension, possibly due to Western business influence and Anglo-Saxon enculturation (Hofstede 1991, 1994; Song, Di Benedetto & Zhao 1999).

These differences in uncertainty avoidance national culture also relates to differences in consumer preferences that were outlined in Figure 1.2 in Chapter 1. The Anglo-Saxon and Nordic groups of countries that have low uncertainty avoidance culturally-anchored values equates to the third cultural state in Figure 1.2, the uncertainty accepting group. In other words students from these regions have a strong uncertainty acceptance preference and can be considered trend setters. The African and Asian groups which are classified as medium to high uncertainty avoidance societies are characterised as falling between the first and second uncertainty avoidance cultural states identified in Figure 1.2. Therefore the African and Asian societies are either price conscious consumers or the moderate risk consumers. The Latin American, Latin European and Mediterranean countries have a tendency to score high on the uncertainty avoidance dimension. These high uncertainty avoidance groupings according to Figure 1.2 are classified as price conscious consumers.

Hofstede (2001) describes the concept of uncertainty avoidance as uncertainty about the future which is something which all humans try to cope with through three domains: technology, law and religion. He also states that uncertainty avoidance should not be confused with risk avoidance. Hofstede (2001) uses the terms

technology, law and religion in their broad sense. *Technology includes all human artefacts; law, all formal and informal rules that guide social behaviour; religion, all revealed knowledge of the unknown* (Hofstede 2001, p. 146). Hofstede (2001) describes technology as a way for people to defend themselves against uncertainties caused by nature. Law helps to defend against uncertainties in the behaviour of others and religion assists in the acceptance of the uncertainties people cannot defend themselves against. He (2001, p. 146) also explicitly states: *The borderline between defending ourselves against uncertainties and accepting them is fluid; many of our defences intended to create certainty do not really do so in an objective sense, but they do allow us to sleep peacefully.*

Hofstede (2001) states that uncertainty is dealt with differently by different societies modern or traditional. He (2001, p. 146) also states:

*...that on the national cultural level, tendencies toward prejudice, rigidity and dogmatism, intolerance of different opinions, traditionalism, superstition, racism and ethnocentrism all relate to a norm for intolerance of ambiguity...measured and expressed in a national Uncertainty Avoidance Index.*

Hofstede (2001) describes the uncertainty avoidance norm as a representation of a value system shared by the majority of people in the middle classes of a society. He further describes this uncertainty avoidance norm as a way of dealing with anxiety about the future within a country. There is also a need to protect society through technology, rules and rituals.

As presented in Figure 3.1 below, high levels of anxiety lead to higher stress levels and a hurried social life. This also leads to higher levels of energy release and an ongoing urge to be busy. Societies with high uncertainty avoidance release anxiety through emotional means for which society has created outlets. These societies also have a strong desire for law and order. Risk taking within these societies is limited to known risks. There is also an increased fear of foreign items within these countries. High uncertainty avoidance societies seek clarity, structure and purity in ideas and rules. People within these societies feel powerless toward external forces (Hofstede 2001).

However, societies with low uncertainty avoidance approach uncertainty differently. Anxiety within these societies is released through passive relaxation and with minimal emotional discharge. These societies are more open to change and new ideas. Risk taking in low uncertainty avoidance societies includes unknown risks, like changing employers. There is also more tolerance for diversity within these societies. These societies are also comfortable with ambiguity, chaos, novelty and convenience. People in low uncertainty avoidance societies feel able to influence their lives, superiors, authorities and the world at large (Hofstede 2001).

The “At School” component of Figure 3.1 below illustrates the effect of different levels of uncertainty avoidance on what constitutes academic support. These differences are also likely to shape students’ perceptions of a supportive university learning environment.

**Figure 3.1: Low and High Uncertainty Avoidance Cultures**

	<b>Low Uncertainty Avoidance Cultures</b>	<b>High Uncertainty Avoidance Cultures</b>
<b>Societal Norms</b>	<p>The uncertainty inherent in life is relatively easily accepted and each day is taken as it comes.</p> <p>Ease, lower stress, less anxiety.</p> <p>Being busy is not a virtue per se.</p> <p>Suppression of emotions.</p> <p>Subjective well-being.</p> <p>Openness to change and innovation.</p> <p>Willingness to take unknown risks.</p> <p>What is different is curious.</p> <p>Tolerance of diversity.</p> <p>Younger people are respected.</p> <p>Comfortable with ambiguity and chaos.</p> <p>Appeal for novelty and convenience.</p> <p>Belief in one's own ability to influence one's life, one's superiors, and the world.</p>	<p>The uncertainty inherent in life is felt as a continuous threat that must be fought.</p> <p>Higher stress, anxiety, neuroticism.</p> <p>Inner urge to be busy.</p> <p>Expression of emotions.</p> <p>Less subjective well-being.</p> <p>Conservatism, law and order.</p> <p>Only known risks are taken.</p> <p>What is different is dangerous.</p> <p>Xenophobia.</p> <p>Older people are respected and feared.</p> <p>Need for clarity and structure.</p> <p>Appeal for purity.</p> <p>Feeling of powerlessness toward external forces.</p>
<b>Family</b>	<p>Parents control their emotions.</p> <p>Higher satisfaction with home life.</p> <p>Lenient rules on what is dirty and taboo.</p> <p>Truth is relative.</p> <p>Few rules: if children cannot obey the rules, the rules should be changed.</p> <p>Mild superegos developed.</p> <p>Children learn that the world is benevolent.</p> <p>Children exposed to unknown situations.</p> <p>Undifferentiated, informal ways of address.</p> <p>Non-traditional gender roles accepted.</p>	<p>Parents behave emotionally.</p> <p>Lower satisfaction with home life.</p> <p>Tight rules on what is dirty and taboo.</p> <p>Concern for Truth with a capital T.</p> <p>Many rules: if children cannot obey the rules, they are sinners who should repent.</p> <p>Strong superegos developed.</p> <p>Children learn that the world is hostile.</p> <p>Children protected from unknown situations.</p> <p>Strictly differentiated forms of address.</p> <p>Traditional gender roles preferred.</p>
<b>At School</b>	<p>Students expect open-ended learning situations and good discussions.</p> <p>Teachers may say, "I don't know."</p> <p>Students learn that truth may be relative.</p> <p>Students attribute achievements to own ability.</p> <p>Children rate self-efficacy as high.</p> <p>Parents' ideas sought by teachers.</p> <p>Dialect speech positively valued.</p> <p>Independence for female students important.</p>	<p>Students expect structured learning situations and seek right answers.</p> <p>Teachers supposed to have all the answers.</p> <p>Students learn that Truth is absolute.</p> <p>Students attribute achievement to effort, context, and luck.</p> <p>Children rate self-efficacy as low.</p> <p>Parents seen as extension of teachers.</p> <p>Dialect speech negatively valued.</p> <p>Traditional role models for female students.</p>
<b>Motivation</b>	<p>Traditional children's stories stress strong achievement motivation.</p> <p>Hope of success.</p> <p>Preference for tasks with uncertain outcomes, calculated risks, and requiring problem solving.</p>	<p>Traditional children's stories stress strong security motivation.</p> <p>Fear of failure.</p> <p>Preference for tasks with sure outcomes, no risks, and following instructions.</p>
<b>Consumer Behaviour</b>	<p>Consumption of convenience products.</p> <p>Reading books and newspapers.</p> <p>Use internet and teletext.</p> <p>Main car bought second hand.</p> <p>"Do it yourself" in home.</p> <p>Investment in stocks.</p> <p>Short payment terms for bills.</p>	<p>Consumption of "purity" products: mineral water, fresh fruits, sugar, textile washing powders.</p> <p>Less reading books and newspapers.</p> <p>Less use of internet and teletext.</p> <p>Main car bought new.</p> <p>Use specialist in home.</p> <p>Investment in precious metals and gems.</p> <p>Long payment terms for bills.</p>

*(Source: Hofstede 2001, p. 161, 169, 180)*

High uncertainty avoidance societies' family life is more stressful according to Hofstede (2001). These cultures even need categories of dangerous others for distinguish-ability. Children within these high uncertainty avoidance societies are subjected to highly rigid systems of rules and norms. These children *...are more likely to learn that the world is a hostile place and to be protected from experiencing unknown situations* (Hofstede 2001, p. 162). However, in low uncertainty avoidance societies there is low stress in family life. These cultures are prepared to *...leave the benefit of the doubt associated with unknown situations, people, and ideas* according to Hofstede (2001, p. 162). Within these societies *...rules are more flexible...the world is pictured as basically benevolent, and experiencing novel situations is encouraged* (Hofstede 2001, p. 162).

Hofstede (2001) states that uncertainty avoidance levels within societies affects educational systems, especially in determining the appropriate amount of structure in the teaching process. In high uncertainty avoidance cultures students and teachers prefer structured learning situations that have both detailed objectives and assignments, and highly structured timetables. They also have a preference for situations where there is only one correct answer, and to be rewarded for accuracy. Students within these societies also expect their teachers to be experts and have all the answers. Hofstede (2001) describes the educational process within high uncertainty societies as searching for truth. Students within these countries are not likely to attribute their achievements to their own ability. However, in low uncertainty avoidance countries students and teachers dislike rigid structure according to Hofstede (2001). They have a preference for open-ended learning situations. Examples include: broad objectives and assignments, and originality is rewarded. Students within these countries respect teachers who use plain language to explain difficult concepts. In low uncertainty avoidance societies: *...there is more of a sense of empiricism and relativity, more room for unconventional ideas* (Hofstede 2001, p. 163). These students are also more likely to attribute their own achievements to their own ability.

Low uncertainty avoidance orientation implies a greater willingness to enter into unknown situations. Hofstede (2001) described achievement motivation in low uncertainty avoidance countries as 'hope of success' and in high uncertainty

avoidance countries as 'fear of failure'. Hofstede (2001, p. 166) states that: *Competencies should be more clearly defined in high uncertainty avoidance societies than in low uncertainty avoidance societies.* He also stated that innovations are more difficult to bring about in high uncertainty avoidance countries where in low uncertainty avoidance societies innovations need to be learned and managed. Countries with low uncertainty avoidance are more open-minded with regards to searching for information and accepting innovation. Countries with high uncertainty avoidance have a tendency to 'play it safe' by leaving tricky jobs to experts (Hofstede 2001). This also illustrates the association between uncertainty avoidance and its effect on purchase behaviours. As previously noted in this chapter and in Chapter 1 high uncertainty avoidance culturally-anchored value orientations prefer low risk situations and are price conscious consumers. Where as low uncertainty avoidance culturally-anchored value orientations suggest 'a can try' attitude which is reflected in their more uncertainty accepting nature.

Hofstede (2001) further states that intercultural encounters within the education sector can sometimes be confronting for teachers and he sees the mismatch between teacher and student(s) cultural values as a source of problems. These differences affect student-teacher relationships, inter-student relationships and the relationships between teachers and parents (the broader community). Class composition is also a factor, and that teacher dominance increases according to the share of foreign-culture students as well as when there are a number of different cultures in the same class.

Hofstede (2001, p. 451) states:

*As language is the vehicle of teaching...The chances for successful cultural adaptation are better if the teacher is to teach in the students' language than if the student has to learn in the teacher's language, because the teacher has more power over the learning situation than any single student. The course language affects the learning process. A change of language implies much more than a transposition of words; ethno-linguistics shows that the role of language within the total set of cultural artefacts varies from country to country.*

He also claims that institutional differences in the societies that teachers and students originate from are caused by inter-cultural problems. These differences generate different expectations as to the educational process and the roles of various parties in

it. Figure 3.2 below presents the outcome of combining Hofstede's (2001) Uncertainty Avoidance Index Scores and Country Ratings with Schiffman et al.'s (2005) cultural dimensions segment map (see Figure 1.2 in Chapter 1). This is one way of potentially seeing linkages between uncertainty avoidance culturally-anchored value orientations and consumer purchase preferences. However it needs to be noted that there are wide variations in uncertainty avoidance scores at an individual level and what is presented in Figure 3.2 is just one factor of consumer purchase preferences. Uncertainty avoidance culturally-anchored value orientations may play a role in purchase preferences and how they perceive their experience.

**Figure 3.2 Consumer Purchase Preference, Uncertainty Avoidance Index Scores, and Country Ratings**

<b>Consumer Purchase Preference</b>	<b>Country</b>	<b>Score</b>	<b>Ranking</b>
<b>Price Conscious Consumers</b>	Greece	112	1
	Portugal	104	2
	Guatemala	101	3
	Uruguay	100	4
	Belgium	94	5-6
	Salvador	94	5-6
	Japan	92	7
	Yugoslavia	88	8
	Peru	87	9
	Argentina	86	10-15
	Chile	86	10-15
	Costa Rica	86	10-15
	France	86	10-15
	Panama	86	10-15
	Spain	86	10-15
	South Korea	85	16-17
	Turkey	85	16-17
<b>Moderate Risk Consumers</b>	Mexico	82	18
	Israel	81	19
	Colombia	80	20
	Brazil	76	21-22
	Venezuela	76	21-22
	Italy	75	23
	Austria	70	24-25
	Pakistan	70	24-25
	Taiwan	69	26
	Arab Countries	68	27
	Ecuador	67	28
	Germany	65	29
	Thailand	64	30
	Finland	59	31-32
	Iran	59	31-32
	Switzerland	58	33
	<b>Trend Setters</b>	West Africa	54
Netherlands		53	35
East Africa		52	36
Australia		51	37
Norway		50	38
New Zealand		49	39-40
South Africa		49	39-40
Canada		48	41-42
Indonesia		48	41-42
United States		46	43
Philippines		44	44
India		40	45
Malaysia		36	46
Great Britain		35	47-48
Ireland		35	47-48
Hong Kong		29	49-50
Sweden		29	49-50
Denmark	23	51	
Jamaica	13	52	
Singapore	8	53	

*(Modified from: Hofstede 2001, p. 500)*

The preceding discussion gives rise to the following proposition.

*P<sub>6</sub>: Postgraduate business students' culturally-anchored value: uncertainty avoidance, affects their perceptions of a supportive university learning*

*environment.*

### **3.4 Chapter Summary**

This chapter presented the literature on the perceived organisational support domain. Specifically it presented an overview of what a supportive university learning environment is by drawing parallels between the perceived organisational support literature and a university setting. A supportive university learning environment was defined within this chapter, and two key components were identified: the learning community and academic and administrative supports. The literature on the learning community and academic and administrative supports was also presented. These discussions lead to proposition five.

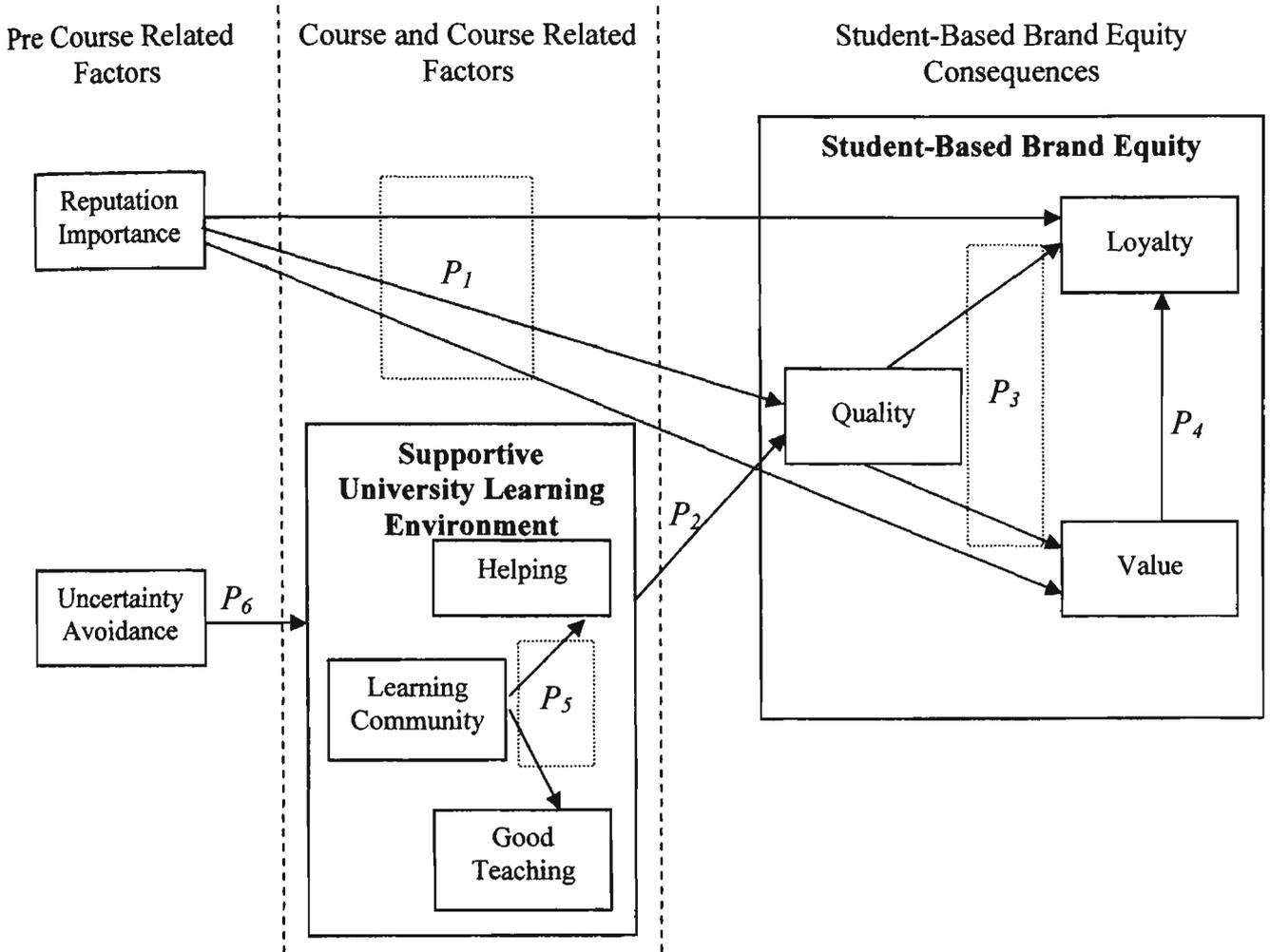
*P<sub>5</sub>: Postgraduate business students' perceptions of a supportive learning community affect their perceptions of supportive teaching and supportive administrative services.*

The literature on the uncertainty avoidance cultural dimension was also discussed in general and in university related terms, which lead to the development of proposition six.

*P<sub>6</sub>: Postgraduate business students' culturally-anchored value: uncertainty avoidance, affects their perceptions of a supportive university learning environment.*

The operationalisation of these propositions is presented within Chapter 4, the conceptual model measurement and methodology chapter. However they can be reported diagrammatically as follows in Figure 3.3.

Figure 3.3: Propositions 1 to 6



# **Chapter 4: Conceptual Model Measurement and Methodology**

## **4.1 Objectives and Structure of the Chapter**

This chapter extends on the literature presented in Chapters 1, 2 and 3 and is presented through three broad sections. The first section discusses the justification of the scales selected to measure postgraduate business students' perceptions of student-based brand equity and their course and course related experiences. Justification is also provided for the scale selected to measure students' uncertainty avoidance culturally-anchored value orientation. The items of each of the scales that have been selected as appropriate measures are also presented within section one of this chapter. Section two of this chapter restates this study's six propositions and discusses their operationalisation into hypotheses. The propositions and hypotheses are also presented diagrammatically in section two. The third section of this chapter presents the methodology employed within this thesis. Specifically it will discuss the sample and the statistical and non-statistical procedures to be undertaken in this thesis.

## **4.2 Scale Justification and Selection**

This section is presented through three sub-sections: Student-Based Brand Equity, a Supportive University Learning Environment, and Students' Uncertainty Avoidance Culturally-Anchored Value Orientation. The student-based brand equity subsection presents the justification and selection of a brand loyalty scale, quality scale and value for cost scale. It also presents the items within the selected scales. The supportive university learning environment subsection, the second subsection, discusses the selection of appropriate scales to measure: a university's learning community, academic support through good teaching and administrative support. Subsection three presents the justification and selection of a scale to measure students' uncertainty avoidance culturally-anchored value orientation. The items within this scale are also outlined, in subsection three.

### 4.2.1 Student-Based Brand Equity

Yoo and Donthu (2001) state that there has been little research on developing a scale to measure consumer-based brand equity. Atilgan, Aksoy and Akinci (2005) agree with Yoo and Donthu (2001), by stating that although several authors have elaborated on the definition and content of brand equity, the number of studies which empirically test its proposed constructs is limited. Atilgan, Aksoy and Akinci (2005) also stated that Aaker's (1991) consumer-based brand equity framework seems to be the most commonly cited. Yoo and Donthu (2001, p.1) conducted *...a multi-step study to develop and validate a multidimensional consumer-based brand equity scale...from Aaker's and Keller's product categories*. Yoo and Donthu (2001) also state that attempts to understand the brand equity phenomena has been hampered by the lack of agreement on what brand equity is and how it should be measured. They claim that there are a series of adhoc measures within the literature currently used to measure consumer-based brand equity and that they were: *...developed without rigorous psychometric tests, and they were not parsimonious enough to manage* (Yoo & Donthu 2001, p.1).

There are many measures of brand equity that are designed to measure the brand equity of either aggregate products at industry or firm level (see: Mahajan, Rao & Srivastava 1994; Park, C. & Srinivasan 1994; Simon & Sullivan 1990). Rangaswamy, Burke and Oliva's (1993), Swait et al.'s (1993), Park and Srinivasan's (1994) and Cobb-Walgren, Ruble, and Donthu's (1995) instruments measure an individual customer's brand equity. These measures may not be appropriate to examine the consumer-based brand equity phenomena because their psychometric properties have not been reported or fully analysed (Yoo & Donthu 2001). Yoo and Donthu (2001) developed their brand equity measure through an etic approach where a universal measurement structure across cultures is sought through multiple cultures simultaneously. This type of approach has functional, conceptual, linguistic and metric equivalence across cultures. This also provides valid cross-cultural comparisons (see: Berry 1980; Leung & Bond 1989; Meredith 1993; Rosenzweig 1994).

Yoo and Donthu (2001) defined consumer-based as a measurement of both cognitive and behavioural brand equity at an individual level. Unlike many other studies their study developed a measure of brand equity that is reliable, valid and parsimonious. They also tested the measure's latent structure for generalisability across multiple samples drawn from several cultures. This measure developed by Yoo and Donthu (2001) was based on Aaker's (1991; 1996b; 1996a) and Keller's (1993) brand equity dimensions which have been accepted as valid and comprehensive. The structural validity of Aaker's (1991; 1996b; 1996a) and Keller's (1993) measurements remain unanswered.

Yoo and Donthu (2001, p.2) state that:

*A brand equity measure would allow investigation of the role of brand equity in Aaker's (1991) and Keller's (1993) models. Specifically, it may be used to measure the brand equity of existing brands, then to examine the relationship of brand equity to the resulting firm and consumer benefits. They also state that: A consumer-based brand equity study needs a measure that assesses an individual customer's brand equity.*

Yoo and Donthu's (2001) multi-dimensional consumer-based brand equity measure comprised of 10 items representing three dimensions of brand equity: brand loyalty, perceived quality, and brand awareness/associations. Their measure can be used to examine consumer-based brand equity from its antecedents of brand knowledge, purchase and consumption experience, marketing activity, corporate image and environmental factors. They also found that consumer-based brand equity can be efficiently investigated using this measure. They also state that a hierarchy exists between the consumer-based brand equity dimensions. Perceived quality precedes brand loyalty and that brand awareness and associations precede perceived quality. This is consistent with Levidge and Steiner (1961), as well as Aaker's (1991) and Keller's (1993) frameworks.

Yoo and Donthu (2001) surveyed several cultures to assess their brand equity scales. They were able to confirm the universality of their measure, which in turn enables the cross-cultural benchmarking of brand equity. They generated a pool of 48 candidate scale items to reflect the dimensions of brand equity. They evaluated these items for conformity to theoretical definitions and redundancy and such established content validity. A total of 22 items for initial psychometric assessment were retained, 5 on

brand loyalty, 4 on brand awareness, 7 on perceived quality and 6 on brand associations. They then designed 5 brand loyalty items focusing on overall attitudinal loyalty to a specific brand by adopting and modifying Beatty and Kahle's (1988) brand loyalty items. The 4 brand awareness items measured brand recognition. These items were based on previous research conducted by Srull (1984) and Alba and Hutchinson (1987). To measure perceived quality they adopted 7 of the items used by Dodds, Monroe and Grewal (1991). They designed the 6 brand associations items to measure: *...the strength of connection to a brand node as a function of both the amount or quantity of processing the information received at encoding and the nature or quality of the processing of the information received at encoding* (Keller 1993, p.5).

Yoo and Donthu (2001) conducted an item purification/pilot study in English and Korean with 460 undergraduate students, 230 from South Korea and 230 from the USA. They computed the reliability of the items of each construct. They only retained those constructs that had a Cronbach alpha of 0.7 or above. They also obtained reasonable parsimony by dropping the weaker item when two items contributed similar alpha coefficients. They also reworded several items to enhance clarity based on participants' comments. Through this process they selected 6 items for perceived quality, 3 for brand loyalty, 3 for brand awareness and 5 for brand associations. They also conducted a series of exploratory factor analyses and confirmatory factor analyses on their data. Their (2001, p.4) *...goal was to identify a final set of items with acceptable discriminant and convergent validity, internal consistency reliability, parsimony and cross-cultural metric equivalence*. They used individual, multi-group level and pool level analyses. Their final data sample consisted of 650 undergraduate students from South Korea and 1000 undergraduate students from the USA.

Washburn and Plank (2002) tested Yoo and Donthu's (2001) final model on their six samples and found an acceptable fit and acceptable composite reliability and variance extracted. However, they found some residual problems which prompted a refinement of Yoo and Donthu's (2001) model, by introducing a four-factor structure. This four factor structure also had acceptable fits, with acceptable composite reliability and variance extracted. However this four-factor structure did not have as

strong a fit as the three-factor model but it could still certainly be applied in a situation where there is a need to separate brand awareness from brand association. Washburn and Plank (2002) also found that Yoo and Donthu's (2001) OBE model demonstrated a very high (much higher than the other constructs) association with purchase intention but relatively weak results with attitude towards the brand.

Netemeyer et al. (2004) similar to Yoo and Donthu (2001) conducted a series of studies to develop consumer-based brand equity scales. Netemeyer et al. (2004) conducted four studies to develop core measures of consumer-based brand equity. Prior to their main studies they (2004, p.212) conducted:

*...two focus groups, expert item judging and one small pre-test study. These earlier studies were conducted to determine whether the researchers' and literature driven definitions of perceived quality, perceived value for cost, uniqueness and the willingness to pay a price premium concurred with the public's view and to aid in generating items for the customer-based brand equity measures.*

From their focus groups, literature review and their own judgement a total of 65 items were generated to tap perceived quality, perceived value for cost, uniqueness and willingness to pay a price premium. They adapted many of their items from previous studies including Aaker (1996b; 1996a) and Zeithaml (1988) that examined aspects of brand equity, brand loyalty, perceived value for cost and perceived quality. Netemeyer et al. (2004) then had their 65 items judged for representativeness by two marketing professors who had backgrounds in both measurement and brand choice. At the conclusion of this process 37 items were retained with a minimum of 8 and a maximum of 11 items per customer-based brand equity facet.

Netemeyer et al. (2004) then conducted a pre-test study to trim their item pool to a more reasonable number with a sample of 44 MBA students. These responses were analysed via principal components and item analyses. These analyses resulted in 23 items being retained with a minimum of 5 and a maximum of 7 items per facet. Netemeyer et al. (2004) then conducted a further four studies. Study 1 was to develop and refine the customer-based brand equity measures and to obtain initial estimates of their psychometric properties. A total of four samples ranging between 138 and 154 adults from a south-eastern city participated. They used covariance structure modelling and as such 12 four factor models were estimated. Items with

high or across factor loadings were deleted. However if an item showed high face validity to its definition it was retained. They then examined the internal consistency and discriminant validity. At the end of this first study 17 items were retained: four for perceived value for cost, five for perceived quality, three for uniqueness and five for willingness to pay a price premium. However they did find extremely high correlations between the perceived quality and the perceived value for cost constructs. This led to study 2, the examination and establishment of the perceived quality and perceived value for cost constructs.

Their second study comprised of 186 non-student adults. These responses were also subjected to confirmatory factor analyses. Once again the perceived value for cost and the perceived quality facets were again highly correlated (above 0.9). One item in the perceived quality facet and one item in the price premium facet still showed extremely high cross-loadings with other facets. Studies one and two were used to derive the final form of their customer-based brand equity measures, test their dimensionality and internal consistency as well as gain estimates of nomological validity. *These studies resulted in retaining an eight-item perceived quality/perceived value for cost measure, a four item uniqueness measure and a four item willingness to pay a price premium for the brand measure* (Netemeyer et al. 2004, p.218).

Netemeyer et al.'s (2004) third study was a field test that extends the scale validation process by examining the customer-based brand equity measures relations to actual brand purchase behaviour. A local independent supermarket in a south-eastern city was contacted. During a four day period of Wednesday to Saturday shoppers were contacted as they entered or left the store. Participants were told that the survey was to be completed at home and mailed back to the researchers within a two week period. They were also told that their grocery store receipts for their next purchases were also needed. A total of 101 shoppers returned the survey. Once again confirmatory factor models of perceived quality/perceived value for cost, willingness to pay a price premium and uniqueness had measurement model acceptability. Their fourth study posited the antecedents of the willingness to pay a price premium for a brand. Specifically it is that the perceived quality/perceived value for cost and uniqueness are correlated and are the antecedents to willingness to pay a price premium and that price premium is an antecedent to brand purchase. To test their

hypothesised model a multiple-time period study was conducted, where 222 undergraduate business students at a major state university in the southeast participated in the study. The fit indices and internal consistency estimates for this model were acceptable.

Within this thesis it is deemed that Yoo and Donthu's (2001) overall brand equity measure which seems to measure organisational loyalty is an appropriate gauge for students' perceptions of loyalty to the university. Netemeyer et al.'s (2004) quality and value for cost measures were also considered appropriate scales to measure the quality domain within this study. This section specifically presented a rationale for why Yoo and Donthu's (2001) and Netemeyer et al.'s (2004) empirically driven scales are robust methods for gauging consumer-based brand equity. Table 4.1 below presents the original items within Yoo and Donthu's (2001) Overall Brand Equity (OBE) scale and Netemeyer et al.'s (2004) perceived quality and perceived value for cost scales as well as the university modified items used within this thesis. The global item used to gauge student importance ratings of the university's reputation is also presented in Table 4.1 below.

**Table 4.1: Student-Based Brand Equity Scales**

Scale	Original Items	University Modified Items
<p><b>Overall Brand Equity (OBE)</b> (Source: Yoo &amp; Donthu 2001, p. 14)</p>	<p>It makes sense to buy X instead of any other brand, even if they are the same. Even if another brand has the same features as X, I would prefer to buy X.</p> <p>If there is another brand as good as X, I prefer to buy X.</p> <p>If another brand is not different from X in any way, it seems smarter to purchase X.</p>	<p>I would take another course in my areas of interest if this University offered it.</p> <p>I would recommend to friends and others to take any course offered by this University if it was in their areas of interest.</p> <p>If a course with identical content was available at another University I would still prefer a course from this University. Even if another University had courses as good as those at this University I would still choose a course from this University.</p>
<p><b>Perceived Quality Scale</b> (Source: Netemeyer et al. 2004, p. 223)</p>	<p>Compared to other brands of (product), (brand name) is of very high quality. (Brand name) is the best brand in its product class. (Brand name) consistently performs better than all other brands of (product). I can always count on (brand name) brand of (product) for consistent high quality.</p>	<p>Compared to other Universities' courses, this University's course is of very high quality. This University's course is the best course available. This University's courses consistently provide better outcomes than all other Universities' courses. I can always count on this University's courses for consistent high quality.</p>
<p><b>Perceived Value for Cost</b> (Source: Netemeyer et al. 2004, p. 223)</p>	<p>What I get from (brand name) brand of (product) is worth the cost. All things considered (price, time, and effort), brand of (product) is a good buy. Compared to other brands of (product), (brand name) is a good value for the money. When I use a (brand name) brand of (product), I feel I am getting my money's worth.</p>	<p>What I get from this University's course is worth the cost. All things considered (price, time, and effort) this University's course is a good buy. Compared to other University courses, this University's course is good value for money. When I use knowledge gained from this University course, I feel I am getting my money's worth.</p>
<p><b>Student Perceptions of the University Reputation</b></p>	<p>New Global Item</p>	<p>How important is the following as a selection criterion in your choice of this University: This University's academic reputation.</p>

## 4.2.2 Supportive University Learning Environment

This section is presented through two subsections. The first presents the justification for the selection of the learning community scale, and presents the scales' items. The second subsection presents the justification for the selection of the academic and administrative supports scales. Subsection two also presents the academic and administrative supports scales and their items.

#### **4.2.2.1 Learning Community**

Penn State University has created the “Penn State Pulse Survey” to gather student feedback on Boyer’s (1990) civil community construct, which contains six components: celebrative community, educationally purposeful community, caring community, open community, just community and disciplined community (see: Moore 1995, 1998, 2001). Based on Boyer’s (1990) civil community components, Penn State developed a series of items for each component. Twelve items were developed for purposeful community, five items for open community, three items for just community, four items for disciplined community, four items for caring community, four items for celebrative community and six overall items. These items are presented below in Table 4.2. What remains unclear is whether the items within each component form actual scales. There is no documentation available about the statistical validity and reliability of these items and whether they form constructs. Penn State report on these items individually and present basic statistical analyses (mean, standard deviation and percentages) in their civility reports (see: Moore 1995, 1998, 2001).

**Table 4.2: Civil Community Components**

Component	Items
Purposeful Community	<p>Most of the faculty members from whom I have taken classes are strongly committed to teaching.</p> <p>Most of my instructors have been open to listening to and learning from their students.</p> <p>I frequently interact with faculty outside as well as inside the classroom.</p> <p>Partying and having fun are more important to me than academics.</p> <p>I participate in many out-of-class intellectual or cultural activities.</p> <p>I study just enough to "get by".</p> <p>Most Penn State faculty are strongly committed to teaching.</p> <p>Most Penn State faculty are open to listening and learning from students.</p> <p>At Penn State, students and faculty frequently interact outside as well as inside the classroom.</p> <p>For most Penn State students, partying and having fun are more important than academics.</p> <p>Most Penn State students participate in many out-of-class intellectual or cultural activities.</p> <p>Most Penn State students study just enough to "get by".</p>
Open Community	<p>I seek to understand points of view that differ from my own.</p> <p>Fear of reprisal prevents me from expressing controversial viewpoints.</p> <p>I have protested use of language that demeans or hurts others.</p> <p>I act in ways that show I respect the rights and dignity of others within the Penn State community.</p> <p>I have been treated with lack of respect and courtesy at Penn State.</p>
Just Community	<p>Since coming to Penn State I have developed a close relationship with someone from an ethnic or cultural background different than my own.</p> <p>I protect the rights and opportunities of others within our community, even those who are different from me.</p> <p>I have been unjustly excluded from some opportunities available on campus.</p>
Disciplined Community	<p>I have an obligation to treat others at Penn State in a courteous and civil manner.</p> <p>I have violated some community legal or social standards while at Penn State.</p> <p>I abide by the university policies that define which academic or social behaviours will not be tolerated.</p> <p>I speak out to oppose actions that are mean-spirited or rude.</p>
Caring Community	<p>I am just a number at Penn State.</p> <p>I share a sense of belonging to the Penn State community.</p> <p>I do volunteer service here at Penn State.</p> <p>My needs are taken into account when decisions are made at Penn State.</p>
Celebrative Community	<p>I have attended celebrations honouring contributions of Penn State students, faculty, staff or alumni.</p> <p>Participating in ceremonies and celebrations make me feel part of Penn State.</p> <p>I feel that Penn State academic and athletic successes are celebrated in proper balance.</p> <p>I would like to know more about the history and traditions of Penn State.</p>
Overall Items:	<p>How well do each of the next six items characterise the Penn State community?</p> <p>Penn State is an educationally purposeful community where faculty and students work together and share academic goals.</p> <p>Penn State is an open community where freedom of expression is protected and where civility is embraced.</p> <p>Penn State is a just community where each person is honoured and diversity is pursued.</p> <p>Penn State is a disciplined community where obligations and behaviours are regulated for the good of the group.</p> <p>Penn State is a caring community where service to others is encouraged and the well-being of each individual is important.</p> <p>Penn State is a community whose history is remembered and whose traditions and rituals are celebrated.</p>

McInnis, Griffin, James and Coates (2001, p. x) developed a learning community scale which comprises of: *...five items on students perceptions of the social experience of learning at university*. McInnis et al.'s (2001) learning community scale has some similarities to the purposeful community component that is implemented by Penn State University. Penn State's purposeful community component as previously outlined in Table 4.2 focuses on five sub-components: commitment to teaching and learning; interactions between staff and students; partying; out of class intellectual activities; and studying to get by. McInnis et al.'s (2001) learning community scale was similar to three sub-components of Penn State's purposeful community: commitment to teaching and learning; interactions between staff and students; and out of class intellectual activities. The individual items within McInnis et al.'s (2001) learning community scale is presented later within this section.

McInnis et al. (2001) state that the learning community scale was required to have specific properties. These include: *...face validity in that users must agree that the items and the scales are pertinent and relevant to their institutions and provide useable information* (McInnis et al. 2001, p. 14). It must also have adequate reliability, meaning that it: *...should have appropriate levels of reliability in a classical sense and that the error variance at aggregate levels of field of study and institution were within acceptable bounds for decision making* (McInnis et al. 2001, p. 14). The third criterion raised by McInnis et al. (2001, p. 14) was that their learning community scale: *...must have demonstrated construct validity in that the items in any scale must work together as a cohesive manner to measure a single entity*. They ran pilot studies at Swinburne University, Deakin University and Ballarat University, and then external panelling with a project advisory committee was conducted.

McInnis et al. (2001) then conducted further item level pilot studies at La Trobe University, The University of Melbourne and Victoria University. *As a result of the pilot study analysis items not fitting within the proposed scale structure were omitted* (McInnis et al. 2001, p. 15). A total of twenty Australian universities were involved in the trials and pilot studies, Table 4.3 below lists all of the universities involved within this project. McInnis et al. (2001) found their learning community scale to be a reliable measure within a range of fit indexes: Cronbach's alpha 0.80, GFI 0.996

and RMSEA 0.038 through their confirmatory factor analysis. They also state that the items within the learning community scale were not too highly correlated with figures ranging from 0.342 to 0.530. The range of these inter-item correlations was high enough to indicate these items form a coherent group but at the same time they were not too high indicating that they are redundant. *In other words, each item appears to be contributing unique information in coherent item scale set* (McInnis et al. 2001, p. 66).

**Table 4.3: Universities Involved in the Project**

<b>State</b>	<b>University</b>
Victoria	La Trobe University The University of Melbourne Deakin University Ballarat University Swinburne University Victoria University
Queensland	James Cook University Queensland University of Technology University of Central Queensland
Tasmania	University of Tasmania
New South Wales	Macquarie University Australian Catholic University The University of New South Wales University of Wollongong
Australian Capital Territory	University of Canberra
South Australia	The Flinders University of South Australia The University of Adelaide
Western Australia	Murdoch University Curtin University of Technology Edith Cowan University

(Source: McInnis et al. 2001, p. 26)

McInnis et al.'s (2001) learning community scale has been adopted by a number of Australian universities including: The University of Sydney, Curtin University of Technology, Murdoch University, The University of Queensland, The University of Western Australia, Monash University, The Australian National University, Victoria University, The University of Southern Queensland, Edith Cowan University, Griffith University, The Flinders University of South Australia, RMIT and The University of New South Wales. This learning community scale has also been recognised by the Australian government. The University of Oxford in the United Kingdom has also adopted McInnis et al.'s (2001) learning community scale within their evaluations.

Table 4.4 below presents the original items within McInnis et al.'s (2001) learning community scale.

**Table 4.4: The Learning Community Scale Items**

Scale	Original Items	University Modified Items
Learning Community Scale (Source: McInnis et al. 2001)	I felt part of a group of students and staff committed to learning.	Same as original.
	I felt I belonged to the University community.	Same as original.
	I was able to explore academic interest with staff and students.	Same as original.
	I learned to explore ideas confidently with other people.	Same as original.
	Students' ideas and suggestions were used during the course.	Same as original.

Within this thesis it is deemed that McInnis et al.'s (2001) learning community scale is an appropriate one to gauge students' perceptions of the university's learning community.

#### 4.2.2.2 Academic Good Teaching Support

McInnis et al. (2001, p. 3) state that:

*The Course Experience Questionnaire (CEQ) has been used for the past seven years to survey all graduates from Australian universities in the months soon after their graduation ...the CEQ is considered a valuable instrument for the purpose of improving the quality of teaching in universities and also for informing student choice, managing institutional performance and promoting accountability of the higher education sector.*

Within the CEQ there is a scale developed by Ramsden (1991) to measure good teaching. This scale has been tested within Australian and British higher education settings (see: Downie & Moller 2002; Mitsis & Foley 2003, 2004; Richardson, J. T. E. 1994; Wilson & Lizzio 1997). Ainely (2001) states that the good teaching scale is a reliable one with its Cronbach's alpha consistently yielding a value of 0.80 and above. He (2001, p. 35) also states that the: *...common underlying dimensions in the CEQ had been established through successive exploratory factor analyses...This structure was confirmed by analyses of the CEQ 1999 data.* The Course Experience Questionnaire which includes the good teaching scale has been adopted by many Australian, British and New Zealand universities to measure students' perceptions of their university experience. Table 4.5 below presents some examples of universities

using the CEQ, which were obtained through google searches (search items: course experience questionnaire and university; course experience questionnaire and universities; CEQ and university; and CEQ and universities) during January 2006. It was found that 32 Australian universities, four British universities and one New Zealand university either implemented the CEQ or were in the process of adopting it. Table 4.5 also highlights that all of Australia's elite branded universities: The Australian National University, The University of Melbourne, The University of Sydney, La Trobe University, Monash University, The University of New South Wales, Newcastle University, The University of Tasmania, The University of Queensland, James Cook University, Murdoch University, The University of Western Australia, The Flinders University of South Australia, and The University of Adelaide all use the CEQ as part of their evaluations. It was also found that elite branded universities in Britain and New Zealand had either adopted or was in the process of adopting the CEQ. In particular elite branded British universities like The University of Oxford and The University of Bristol, as well as non elite branded universities like The University of Ulster and Canterbury Christ Church University College have all adopted the CEQ. Within New Zealand, Massey University, an elite branded university, has also investigated the CEQ with plans outlined in their working parties to adopt it.

**Table 4.5: Universities Using the CEQ**

<b>Country</b>		<b>University</b>	
Australia	<b>Elite Branded Universities</b>	La Trobe University Monash University The University of Melbourne The University of Sydney The University of New South Wales Newcastle University Australian National University The University of Tasmania The University of Queensland James Cook University Murdoch University The University of Western Australia The Flinders University of South Australia The University of Adelaide	
	<b>Non Elite Branded Universities</b>	<b>New Generation Universities</b>	The University of Canberra Victoria University Ballarat University The University of the Sunshine Coast Central Queensland University The University of Western Sydney Edith Cowan University Southern Cross University
		<b>Non New Generation Universities</b>	Queensland University of Technology The University of Southern Queensland RMIT Swinburne University Deakin University Curtin University of Technology Griffith University The University of South Australia University of Technology Sydney Charles Sturt University
Britain	<b>Elite Branded Universities</b>	The University of Oxford The University of Bristol	
	<b>Non Elite Branded Universities</b>	The University of Ulster Canterbury Christ Church University College	
New Zealand	<b>Elite Branded University</b>	Massey University	

There were also adequate Cronbach alpha results for the scales within the CEQ: good teaching 0.87, clear goals 0.80, appropriate workload 0.77, appropriate assessment 0.71, and emphasis on independence 0.72. The CEQ has also been tested and verified within the British setting (see: Downie & Moller 2002; Richardson, J. T. E. 1994; Wilson & Lizzio 1997).

Despite the CEQ being widely used within Australian and British higher education settings, it has received some criticism on methodological and conceptual grounds. The items within the CEQ have changed over time and other items have had wording

modifications. The good teaching scale has remained consistent. The good teaching scale within Ramsden's (1991; 1992) CEQ instrument has been identified as an appropriate measure of academic supports within elite branded and non elite branded universities in Australia and Britain. Table 4.6 below presents the good teaching scale items used in this thesis.

**Table 4.6: The Good Teaching Scale**

Scale	Original Items	University Modified Items
Good Teaching Scale (Source: Ainley 2001)	The teaching staff of this course motivated me to do my best work. The staff put a lot of time into commenting on my work. The staff made a real effort to understand difficulties I might be having with my work. The teaching staff normally gave me helpful feedback on how I was going. My lecturers were extremely good at explaining things. The teaching staff worked hard to make their subjects interesting.	Same as original.  Same as original.  Same as original.  Same as original.  Same as original.  Same as original.

#### 4.2.2.3 Administrative Support

As identified in Chapter 3, administrative supports are related to students' perceptions of their course and course related experiences and the helpfulness of the university's staff. Podsakoff et al. (2000) state that helping behaviour is an important component of citizenship behaviour (see: Borman & Motowidlo 1993, 1997; George & Brief 1992; George & Jones 1997; Graham 1989; Organ 1988, 1990a, 1990b; Smith, C., Organ & Near 1983; Van Scotter & Motowidlo 1996; Williams & Anderson 1991). Podsakoff et al. (2000, p. 516) describe the helping behaviour dimension as: *...voluntarily helping others with, or preventing the occurrence of, work related problems.* Organ's (1988; 1990b) altruism, peacemaking, and cheerleading dimensions, Graham's (1989) interpersonal helping, Williams and Anderson's (1991) OCB-I, Van Scotter and Motowidlo's (1996) interpersonal facilitation, George and Brief's (1992) and George and Jones' (1997) helping others constructs are encompassed by the first part of Podsakoff et al.'s (2000) definition: helping others with work related problems. The second part of their (2000, p. 517) definition: *...captures the notion of courtesy, which involves helping others by taking steps to prevent the creation of problems for co-workers* (see: Mackenzie, Podsakoff & Fetter

1993; Mackenzie, Podsakoff & Rich 1999; Podsakoff, Ahearne & Mackenzie 1997; Podsakoff & Mackenzie 1994). Podsakoff et al. (2000) have identified seven dimensions within the organisational citizenship behaviour literature. These categories are presented in Table 4.7 below.

From a university supports perspective the helping behaviour dimension identified by Podsakoff et al. (2000) is important as it looks at helping students or preventing the occurrence of student-related problems, as well as helping students by taking the steps to prevent the creation of problems for students. As outlined in Table 4.7 helping behaviour can be gauged through a number of different theoretical justifications.

**Table 4.7: Seven Dimensions of Organisational Citizenship Behaviour**

<b>Dimension</b>	<b>Theoretical Justification</b>
Helping Behaviour	Organ (1988; 1990b) Graham (1989) Williams and Anderson (1991) Van Scotter and Motowidlo (1996) George and Brief (1992) George and Jones (1997) Mackenzie, Podsakoff and Fetter (1993) Mackenzie, Podsakoff and Rich (1999) Podsakoff and Mackenzie (1994) Podsakoff, Ahearne and Mackenzie (1997)
Sportsmanship	Podsakoff et al. (2000)
Organisational Loyalty	Graham (1989; 1991) George and Brief (1992) George and Jones (1997) Borman and Motowidlo (1993; 1997)
Organisational Compliance	Smith, Organ and Near (1983) Graham (1991) Williams and Anderson (1991) Borman and Motowidlo (1993) Van Scotter and Motowidlo (1996)
Individual Initiative	Organ (1988) Graham (1989) Moorman and Blakely (1995) George and Brief (1992) George and Jones (1997) Borman and Motowidlo (1993; 1997) Morrison and Phelps (1999) Van Scotter and Motowidlo (1996)
Civic Virtue	Organ (1988; 1990b) Graham (1989) George and Brief (1992)
Self Development	George and Brief (1992) Podsakoff et al. (2000)

Podsakoff and Mackenzie (1994) identified that helping behaviour is a second order latent construct and developed this construct from research conducted by Organ (1988; 1990a; 1990b); Podsakoff, Mackenzie and Fetter (1993); and Mackenzie, Podsakoff and Fetter (1991; 1993). Podsakoff and Mackenzie (1994) developed the

helping construct using the scale development procedures recommended by Schwab (1980), Churchill (1979) and Nunnally (1978). Podsakoff and Mackenzie (1994, p. 354) stated that:

- ...the scale development progressed through four stages:*
- 1. Items were generated to tap into the OCB construct domains;*
  - 2. These items were distributed to several colleagues who were asked to classify the randomly ordered items into categories based on the construct definitions, and those items that were assigned to the proper a priori category at least 80% of the time were retained;*
  - 3. Construct definitions and items were discussed with company representatives to confirm their applicability...; and*
  - 4. The remaining items were administered to a sample of...managers (from the same company as those participating in this study), confirmatory factor analyses and item reliability analyses were conducted, and the results were used to refine the scales further.*

Podsakoff and Mackenzie's (1994) helping scale has been identified as a valid scale to measure student perceptions of administrative support. Table 4.8 below outlines Podsakoff and Mackenzie's (1994) helping scale. Any item modifications made to this scale is also documented in Table 4.8.

**Table 4.8: The Helping Scale**

Scale	Original Items	University Modified Items
<p>Helping Scale (Source: Podsakoff &amp; Mackenzie 1994)</p>	<p>Willingly gives his or her time to help other agents who have work-related problems.</p> <p>Is willing to take time out of his or her own busy schedule to help with recruiting or training new agents.</p> <p>Touches base with others before initiating actions that might affect them.</p> <p>Takes steps to try to prevent problems with other agents and/or other personnel in the agency. Encourages other agents when they are down.</p> <p>Acts as a peacemaker when others in the agency have disagreements.</p> <p>Is a stabilizing influence in the agency when dissention occurs.</p>	<p>The University staff willingly gives their time to help students with course related problems.</p> <p>The University staff are willing to take time out of their busy schedules to explain administrative and other procedures to students.</p> <p>The University staff try to contact students before initiating actions that might affect them.</p> <p>The University staff try to prevent administrative and other problems for students.</p> <p>The University staff encourage students when they are down or have problems.</p> <p>The University staff act as a peacemaker when students have conflicts.</p> <p>The University staff are a stabilizing influence when problems occur.</p>

### 4.2.3 Uncertainty Avoidance Culturally-Anchored Value Orientation

Sparrow and Wu (1998) state that there are many ways to define culture within the cultural literature domain (see: Hoebel 1960; Maznevski & DiStefano 1995; Maznevski, DiStefano & Nason 1994; Maznevski, Nason & DiStefano 1993; Schwartz 1992). Sparrow and Wu (1998) add that there are four well-documented approaches to culture which study a restricted set of concepts that are deemed universal among all cultures and thus generalisable. These are based on Hall (1959; 1976), Hampden-Turner and Trompenaars (1993), Hofstede (1980; 1985; 1991; 1993), and Kluckhohn and Strodtbeck (1961).

Kluckhohn and Strodtbeck (1961) identified six value orientations through their ethnographic study. Their value orientations were based on assumptions or set principles that people use to evaluate beliefs, feelings and intentions, through cognitive, affective and directive evaluation processes. Sparrow and Wu (1998) describe Kluckhohn and Strodtbeck's (1961) value orientations as a behaviour guide as they give order and direction to the way people act. This in turn relates to the solution of common problems. Kluckhohn and Strodtbeck's (1961) value orientations are highly organised and as such societal comparisons are possible. Sparrow and Wu (1998, p. 30) describe the value orientations as:

*...Human nature is seen as inherently good, bad, neutral or a mix of these stances. The basic nature of humans is seen as either changeable or not...humans have a need or duty to understand, control or master nature, or they assume we should submit to nature, or work with it to maintain harmony and balance. Humans make decisions with respect to events in the past or traditions, events in the present or in the future. Activity in their day-to-day lives may concentrate on being (living for the moment and being spontaneous), achieving (striving for goals, keeping busy) or thinking (reflecting, living rationally)...human relationships are individual, collateral (collective) or hierarchical.*

Alder (1991) and Lane and DiStefano (1992) found within cultural regularities across these dimensions and differences across these values between communities.

Hall (1959; 1976) focused on the differences between low context and high context societies. Hall and Hall (1990) describe the term context as information surrounding an event, meaning that the event and conceptions of time are tied into the person's

perception. Sparrow and Wu (1998) describe low context societies as: American, German, Swiss, Scandinavian and Northern European. These societies have an appreciation for explicit and clear written forms of communications such as computers, books, reports and letters. High context societies, such as Asia, the Arab nations, and Southern Europe, are societies that less often present their information in an officially written form. In these countries it is often inferred or assumed that the other party knows what they are saying or intending. Low context societies are also described as being mono-chronic: only doing one activity at a time and dislike interruptions, where as high context societies are opposite. High context societies are poly-chronic in nature and are more flexible in their approach to managing work and others.

One of the most commonly used instruments to gauge cultural differences is Hofstede's cultural dimensions (Robertson 2000; Robertson & Hoffman 2000). Hofstede (1980) found that cultural differences exist across different national boundaries, and thus proposed a four dimensional framework of national culture and more recently added a fifth dimension (Hofstede 1991; Hofstede & Bond 1988). Each of Hofstede's cultural dimensions was constructed on the basis of statistical analyses and he claims that these outcome measures are a proxy of deeper cultural facets. Hofstede sees these cultural values as also being clustered into countries that share a common cultural heritage. Two major groups explored in this thesis investigation are: the Anglo-Saxon group (USA, UK and Australia) and the Confucian group (China and other Far Eastern countries). Hofstede defined culture in terms of five dimensions: Power Distance, Uncertainty Avoidance, Individualism / Collectivism, Masculinity / Femininity and most recently Short / Long-Term Orientation.

There has been an abundance of cross-cultural analyses using Hofstede's cultural dimensions (see: Lu, Rose & Blodgett 1999; Redpath & Nielsen 1997; Robertson 2000; Robertson & Hoffman 2000; Tsui & Windsor 2001). Hofstede's cultural dimensions were found to be indicative measures of national cultural differences, and provides insights into different cultures (Lu, Rose & Blodgett 1999; Redpath & Nielsen 1997). Empirical studies like Robertson and Hoffman's (2000), tested Hofstede's cultural dimensions at the individual level of analysis within a tertiary education environment. Dorfman and Howell (1988) developed the first 22 items of

this scale, and it had Cronbach alpha reliabilities of Individualism/Collectivism 0.72; Masculinity 0.87; Power Distance 0.85; and Uncertainty Avoidance 0.86. These were both satisfactory and consistent in studies performed with both Mexican and Chinese managers (Robertson 2000).

Ward, Pearson and Entrekin (2002) state that the research conducted by Hofstede (1980) has popularised that cultural values are relatively stable over time and that nations consistently cluster together (see: Dowling & Nagel 1986; Ronen 1986). Harvey (1997) describes Hofstede's work as a comprehensive study and provides noteworthy theoretical explanation of the influence of national culture. Cook and Herche (1994), Brett and Okumura (1998), and Chen, Chen and Meindl (1998) agree that there is evidence supporting differences in the perceptions of equity, decision making, conflict resolution and leadership across different nationalities and cultures. These views are consistent with Hofstede (1980; 1991; 1994; 1998).

Yeniyurt and Townsend (2003, p. 379) state that: *Culture remains an elusive, multi-faceted dimension that is difficult to harness and understand completely...The most frequently utilized and cited framework for analysing and assessing culture is that of Hofstede.* Weiermair (2000, p. 398) states that: *Hofstede's work has been both used and replicated in many applications.* Hofstede's cultural framework has been the basis of countless studies (see: Fontaine & Richardson 2005; Harvey, F. 1997; Joiner 2001; Kessapidou & Varsakelis 2002; Kogut & Singh 1988; Robertson 2000; Robertson & Hoffman 2000; Schwartz 1994; Sivakumar & Nakata 2003; Ward, Pearson & Entrekin 2002; Yeniyurt & Townsend 2003). There are very few studies that are not based on Hofstede's cultural framework within the literature. These studies use either Kluckhohn and Strodtbeck's (1961) framework (see: Sparrow & Wu 1998) or Yau's (1994) Chinese Cultural Value Inventory (see: Noronha 2002).

There have been some criticisms about Hofstede's cultural framework. Particularly for its limitations for extension of the dominant values that are present within multinational organisations to represent societal and country cultural values (Banai 1982; Hunt 1983; Robinson, R. 1983; Schooler 1983; Triandis 1982). Hofstede's cultural framework has also come under scrutiny for its lack of definition precision across categories (Chow, Shields & Wu 1999; Schwartz 1992) and its methodological

and measurement scope limitations (Dorfman & Howell 1988; Roberts & Boyacigiller 1984; Robinson, R. 1983; Yeh 1998). Despite these limitations Hofstede's cultural values framework has consistently been the cultural framework of reference. This is further justified by the Global Leadership and Organisational Behaviour Effectiveness (GLOBE) Research Program's adoption and extension of Hofstede's cultural framework.

As discussed in Chapters 1 and 3, it is the uncertainty avoidance culturally-anchored value orientation that is of interest within this thesis. House and Javidan (2004, p. 11) have defined uncertainty avoidance as: *...the extent to which members of an organisation or society strive to avoid uncertainty by relying on established social norms, rituals, and bureaucratic practices*. People within high uncertainty avoidance cultures have been described by House and Javidan (2004) as actively seeking to decrease the occurrence of unpredictable future events which could have adverse effects.

House and Javidan (2004) state that the GLOBE, is a world wide, multi-phase and multi-method project which was designed to explore the complex and fascinating effects of culture on leadership, organisational effectiveness, economic competitiveness of societies and the human condition of members of the societies studied. A total of 62 cultures were investigated extensively through quantitative and qualitative methods. All major regions of the world are engaged within this long-term series of cross-culture studies. There is a team of 170 social scientists and management scholars working collaboratively. Figure 4.1 below presents the countries participating within the GLOBE study.

**Figure 4.1: Countries Participating in the GLOBE Study**

Albania	Ecuador	Hungary	Morocco	South Africa (Black Sample)	Zambia
Argentina	Egypt	India	Namibia	South Africa (White Sample)	Zimbabwe
Australia	El Salvador	Indonesia	The Netherlands	South Korea	
Austria	England	Iran	New Zealand	Spain	
Bolivia	Finland	Ireland	Nigeria	Sweden	
Brazil	France	Israel	Philippines	Switzerland	
Canada (English-speaking)	Georgia	Italy	Poland	Switzerland (French-speaking)	
China	Germany (East)	Japan	Portugal	Taiwan	
Colombia	Germany (West)	Kazakhstan	Qatar	Thailand	
Costa Rica	Greece	Kuwait	Russia	Turkey	
Czech Republic	Guatemala	Malaysia	Singapore	United States	
Denmark	Hong Kong	Mexico	Slovenia	Venezuela	

*(Source: House & Javidan 2004, p.12)*

The uncertainty avoidance dimension within the GLOBE study along with the other (Power Distance, Collectivism I, Collectivism II, Gender Egalitarianism, Assertiveness and Future Orientation) cultural dimensions within this research have their origins in the dimensions of culture identified by Hofstede (1980) according to House and Javidan (2004). The uncertainty avoidance and power distance constructs within the GLOBE have been derived explicitly from Hofstede's (2001) dimensions. Gupta and Hanges (2004) state that there are significant differences between the various culture clusters identified above. They further state that the meta-Western region comprising of Nordic Europe, Germanic Europe, Latin Europe, Anglo and Latin America clusters are quite different to the meta-Eastern region of Eastern Europe, Confucian Asia, Southern Asia, Middle East and the Sub-Saharan Africa clusters, refer to Table 4.9 below which outlines these cultural groupings. The five western clusters are lower in uncertainty avoidance than the eastern clusters. Sully de Luque and Javidan (2004) present the cultural attributes that have a tendency to cluster together when comparing high and low uncertainty avoidance societies. These are outlined in the Figure 4.2 below. Sully de Luque and Javidan (2004) state there were differences in uncertainty avoidance practices and scores in each GLOBE study region.

**Table 4.9: GLOBE Cultural Clusters**

<b>Cultural Cluster</b>	<b>Countries Identified within the Cluster</b>			
Anglo	South Africa (White Sample)	England New Zealand	United States of America Canada	Australia Ireland
Latin Europe	Switzerland (French Speaking)	France Israel	Italy Spain	Portugal
Nordic Europe	Finland	Denmark	Sweden	
Germanic Europe	Austria	Switzerland	Germany (both Former East and West)	The Netherlands
Eastern Europe	Slovenia Georgia	Hungary Russia	Kazakhstan Albania	Poland Greece
Latin America	Mexico Guatemala Bolivia	Costa Rica Venezuela Ecuador	El Salvador Brazil Argentina	Colombia
Middle East	Morocco Turkey	Kuwait	Qatar	Egypt
Sub-Saharan Africa	Nigeria Zambia	South Africa (Black Sample)	Namibia	Zimbabwe
Southern Asia	Thailand India	Malaysia Indonesia	Iran	Philippines
Confucian Asia	Japan Hong Kong	Singapore	Taiwan	China

*(Source: Gupta & Hanges 2004)*

**Figure 4.2: Differences in Uncertainty Avoidance Practices**

<b>Societies That Score Higher on Uncertainty Avoidance Tend to:</b>	<b>Societies That Score Lower on Uncertainty Avoidance Tend to:</b>
Have a tendency toward formalising their interactions with others.	Have a tendency to be more informal in their interactions with others.
Document agreements in legal contracts.	Rely on the word of others they trust rather than contractual arrangements.
Be orderly, keeping meticulous records, documenting conclusions drawn in meetings.	Be less concerned with orderliness and the maintenance of records, often do not document the conclusions drawn in meetings.
Rely on formalised policies and procedures, establishing the following rules, verifying communications in writing.	Rely on informal interactions and informal norms rather than formalised policies, procedures and rules.
Take more moderate calculated risks.	Be less calculating when taking risks.
Inhibit new product development but facilitate the implementation stage through risk aversion and tight controls.	Facilitate the new product development especially in the initiation phase, through higher risk taking and minimal planning or controls.
Show stronger resistance to change.	Show less resistance to change.
Show stronger desire to establish rules allowing predictability of behaviour.	Show less desire to establish rules to dictate behaviour.
Show less tolerance for breaking rules.	Show more tolerance for breaking rules.

*(Source: Sully de Luque & Javidan 2004, p. 618)*

The importance of Hofstede’s (1980; 1985; 1991) uncertainty avoidance cultural dimension within an educational setting was raised in Chapter 3. It was also identified as a valid and reliable measure for gauging student differences. Within this study Robertson and Hoffman’s (2000) measure is appropriate as it was designed to measure students’ individual level of uncertainty avoidance. This scale is based on Hofstede’s cultural framework. Table 4.10 below presents the uncertainty avoidance items within Robertson and Hoffman’s (2000) uncertainty avoidance measure.

**Table 4.10: Uncertainty Avoidance Scale Items**

<b>Scale</b>	<b>Original Items</b>	<b>University Modified Items</b>
<b>Uncertainty Avoidance</b> (Source: Robertson & Hoffman 2000)	It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do.	Same as original.
	Managers expect employees to closely follow instructions and procedures.	Same as original.
	Rules and regulations are important because they inform employees what the organisation expects of them.	Same as original.
	Standard operating hours and procedures are helpful to employees on the job.	Same as original.
	Instructions for operations are important for employees on the job.	Same as original.

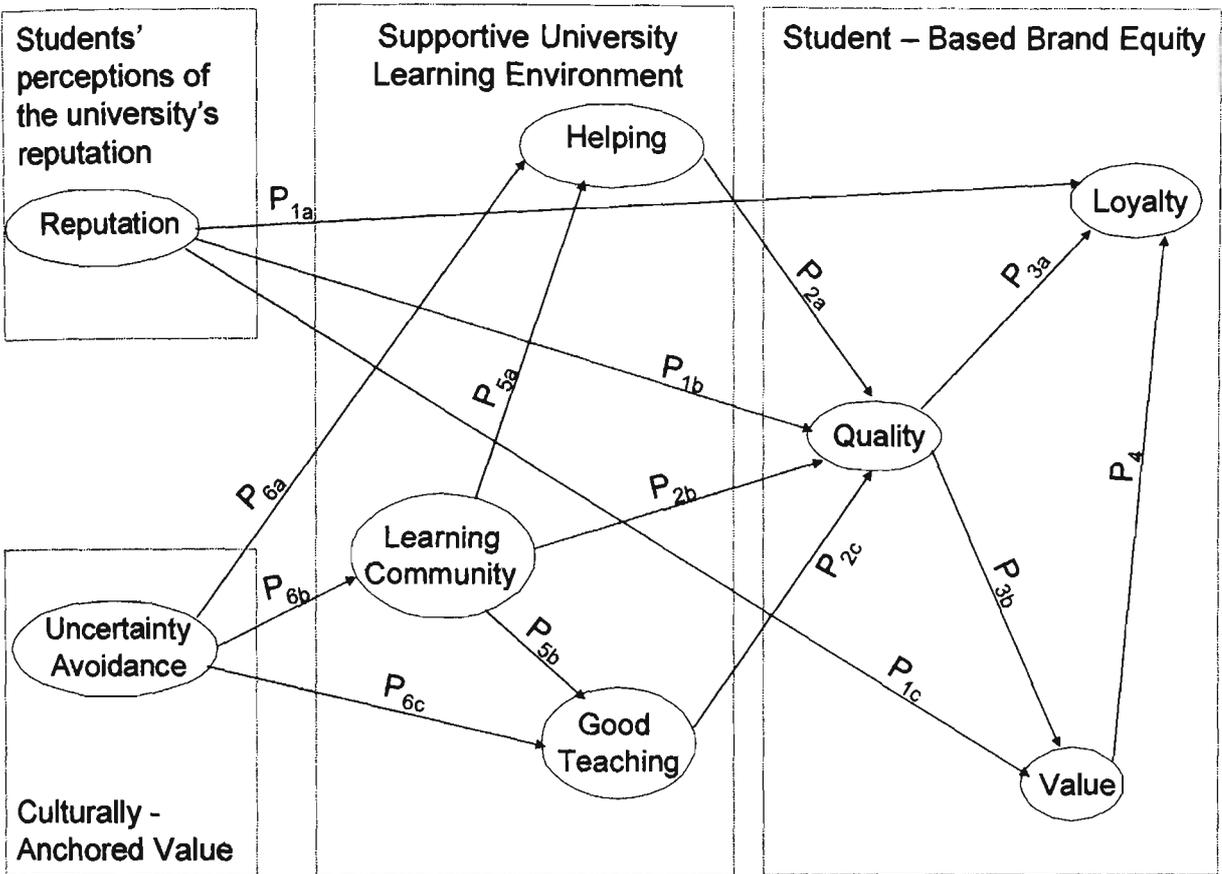
### 4.3 The Study

This section presents the proposed model of this research. It discusses the overriding propositions and their operationalisation into hypotheses to be tested. Based on the literature presented in Chapters 2 and 3, six propositions were developed. Table 4.11 below outlines the six propositions and their sub-propositions. Propositions one, two and six each have three sub-propositions, and propositions three and five have two sub-propositions. Proposition four has no sub-propositions. A diagrammatic representation is presented in Figure 4.3 below.

**Table 4.11: Study Propositions Restated**

P <sub>1</sub>	Postgraduate business students' importance ratings of their university's reputation affect their perceptions of student-based brand equity (quality, value and loyalty).
P <sub>1a</sub>	Postgraduate business students' importance ratings of their university's reputation affect their perceptions of the student-based brand equity: loyalty dimension.
P <sub>1b</sub>	Postgraduate business students' importance ratings of their university's reputation affect their perceptions of the student-based brand equity: quality dimension.
P <sub>1c</sub>	Postgraduate business students' importance ratings of their university's reputation affect their perceptions of the student-based brand equity: value dimension.
P <sub>2</sub>	Postgraduate business students' perceptions of a supportive university learning environment affect their perceptions of quality.
P <sub>2a</sub>	Postgraduate business students' perceptions of a supportive university learning environment: helping dimension affect their perceptions of quality.
P <sub>2b</sub>	Postgraduate business students' perceptions of a supportive university learning environment: learning community dimension affect their perceptions of quality.
P <sub>2c</sub>	Postgraduate business students' perceptions of a supportive university learning environment: good teaching dimension affect their perceptions of quality.
P <sub>3</sub>	Postgraduate business students' perceptions of perceived quality affect their perceptions of value for cost and loyalty.
P <sub>3a</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension affect their perceptions of the student-based brand equity: loyalty dimension.
P <sub>3b</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension affect their perceptions of the student-based brand equity: value dimension.
P <sub>4</sub>	Postgraduate business students' perceptions of value for cost affect their perceptions of loyalty.
P <sub>5</sub>	Postgraduate business students' perceptions of a supportive learning community affect their perceptions of supportive teaching and supportive administrative services.
P <sub>5a</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension affect their perceptions of supportive administrative services: the helping dimension.
P <sub>5b</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension affect their perceptions of supportive teaching: the good teaching dimension.
P <sub>6</sub>	Postgraduate business students' culturally-anchored value, uncertainty avoidance, affects their perceptions of a supportive university learning environment.
P <sub>6a</sub>	Postgraduate business students' culturally-anchored value, uncertainty avoidance, affects their perceptions of a supportive university learning environment: the helping dimension.
P <sub>6b</sub>	Postgraduate business students' culturally-anchored value, uncertainty avoidance, affects their perceptions of a supportive university learning environment: the learning community dimension.
P <sub>6c</sub>	Postgraduate business students' culturally-anchored value, uncertainty avoidance, affects their perceptions of a supportive university learning environment: the good teaching dimension.

**Figure 4.3: Study Propositions**

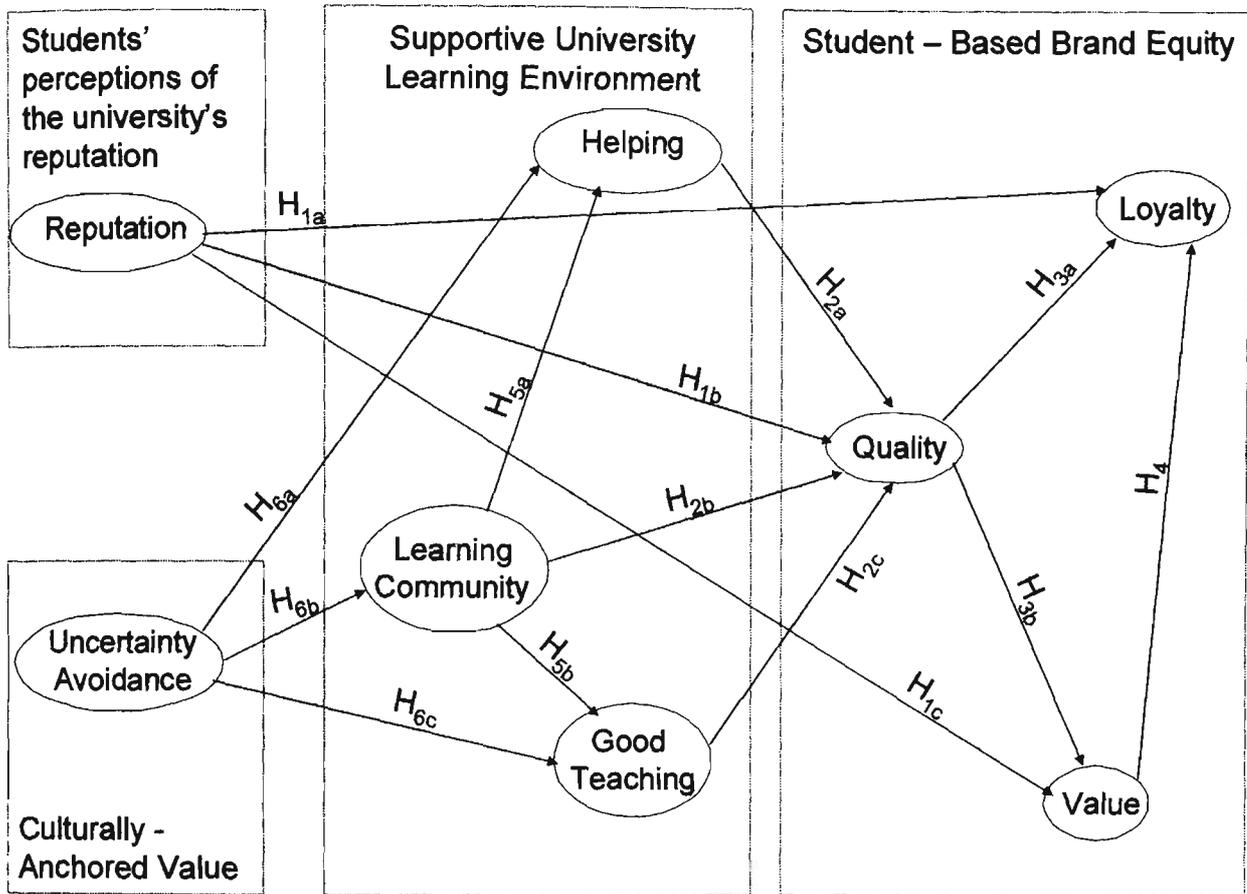


These propositions were then operationalised into active hypotheses which could be tested. Table 4.12 below presents the hypotheses to be tested. There are a total of 6 hypotheses. However there are a number of sub-hypotheses per hypothesis as outlined below. Hypotheses 1, 2 and 6 have three sub-hypotheses each, hypotheses 3 and 5 have two sub-hypotheses respectively and hypothesis 4 has no sub-hypotheses. This study's hypotheses are presented diagrammatically in Figure 4.4 below.

**Table 4.12: Study Hypotheses**

H <sub>1a</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: loyalty dimension, when students' perceptions of quality and value are controlled for.
H <sub>1b</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: quality dimension, when students' perceptions of a supportive university learning environment: helping, learning community and good teaching are controlled for.
H <sub>1c</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: value dimension, when students' perceptions of quality are controlled for.
H <sub>2a</sub>	Postgraduate business students' perceptions of the supportive university learning environment: helping dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, learning community and good teaching are controlled for.
H <sub>2b</sub>	Postgraduate business students' perceptions of the supportive university learning environment: learning community dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and good teaching are controlled for.
H <sub>2c</sub>	Postgraduate business students' perceptions of the supportive university learning environment: good teaching dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and learning community are controlled for.
H <sub>3a</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and value are controlled for.
H <sub>3b</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: value dimension, when students' perceptions of reputation importance are controlled for.
H <sub>4</sub>	Postgraduate business students' perceptions of the student-based brand equity: value dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and quality are controlled for.
H <sub>5a</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive administrative services: the helping dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.
H <sub>5b</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive teaching: the good teaching dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.
H <sub>6a</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: helping dimension, when students' perceptions of the learning community are controlled for.
H <sub>6b</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: learning community dimension.
H <sub>6c</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: good teaching dimension, when students' perceptions of the learning community are controlled for.

**Figure 4.4: Study Hypotheses**



## 4.4 The Sample

An opportunity sample was chosen from postgraduate business students attending a large metropolitan university in Melbourne, Australia. Six hundred students were asked to participate in this study from a range of Business Masters programs being offered through: the School of Management, the School of Hospitality, Tourism and Marketing, the School of Accounting and Finance, the School of Applied Economics, the Graduate School of Business and the School of Information Systems. A 91 percent return rate gave a final sample of 548, with 510 usable questionnaires. Thirty eight returned questionnaires were incomplete and thus discarded from the analysis.

Participants were asked to respond to a series of questions relating to culturally-anchored values, supportive university learning environment, students' importance ratings of the university's reputation and student-based brand equity by stating their level of agreeance through a seven point likert scale where, 1 = Strongly Disagree to 7 = Strongly Agree. The cultural values data was collected through Robertson and

Hoffman's (2000) Cultural Values scale as it was designed to measure an individual's beliefs along each of Hofstede's (1980; 1991) cultural dimensions and had previously been used with business students in the United States (see: Robertson & Hoffman 2000). Participants' supportive university learning environment data was collected through McInnis et al.'s (2001) learning community scale, Ramsden's CEQ scale: good teaching (Ainley & Johnson 2000), and Podsakoff and Mackenzie's (1994) helping scale. Students' importance rating of the university reputation was collected from a global reputation item. Student-based brand equity data was collected through Netemeyer et al.'s (2004) customer-based brand equity scales: perceived quality (relabelled quality in this study), and perceived value for cost (relabelled value within this study) and Yoo and Donthu's (2001) overall brand equity (OBE) scale relabelled loyalty within this study. There were slight modifications made to the wording of the items within Netemeyer et al.'s (2004) scales, where "brand name" was changed to "this university" and "product" to "this course", as outlined earlier in this chapter.

## **4.5 Procedures**

The questionnaires were pre-tested with 30 final year postgraduate students from the School of Management, studying Business Research Methods at a large metropolitan university in Melbourne, Australia. These pre-test participants did not participate in the final data collection. As a result of this pre-testing, relatively minor modifications were made to the written instructions. This revised questionnaire was then administered to postgraduate business students within the Graduate School of Business, the School of Management, the School of Accounting and Finance, the School of Hospitality, Tourism and Marketing, the School of Information Systems and the School of Applied Economics, in a classroom setting.

The purpose of research was explained to participants in broad terms. The written instructions were also explained in detail to participants. Respondents were also assured that their responses would remain anonymous. Participant anonymity was guaranteed and no names or other identifying information was collected. The participants were all given the opportunity to take part in the questionnaire and were

also given the opportunity to ask questions. Participants were also encouraged to answer the questionnaire honestly.

## **4.6 Analytical Procedures**

This section is presented through two subsections. The first subsection presents an overview of the general statistics that will be conducted in this thesis. Subsection two will discuss the advanced statistical analyses conducted: confirmatory factor analyses; and cross validation analyses using structural equation modelling.

### **4.6.1 Overview Statistics**

A series of overview statistics will be conducted including percentages, minimum values, maximum values, the mean, standard deviation analyses, Pearson correlation analyses, coefficient of determination analyses, net promoter score analyses and Cronbach's alpha reliability analyses. The mean is the most commonly used measure of central tendency. It is the arithmetic average of a set of values (Hair et al. 1998). The mean values of all the variables in this study were calculated in the SPSS program. The standard deviation, an index which describes the spread or variability of the sample distribution values from the mean. It is essentially the square root of the variance (Hair et al. 1998). The standard deviation will be calculated for all the variables in this study by using the SPSS program. The Pearson correlation analyses, assumes that interval or ratio (metric) data has a linear relationship and a normal distribution; this allows the linear association between two metric variables to be calculated. A Pearson correlation matrix will be calculated for all of the variables in this study: reputation, uncertainty avoidance, helping, learning community, good teaching, quality, value and loyalty. By squaring the correlation coefficient, the coefficient of determination is calculated. This coefficient of determination represents the amount of variation explained or accounted for in one variable by one or more variables (Hair et al. 1998). The coefficient of determination will also be calculated for each of the variables in this thesis.

The net promoter scores will be calculated for each of the course and course related experiences (helping, learning community and good teaching), and the student-based brand equity dimensions: quality, value and loyalty. The net promoter score has been described by Reichheld (2006) as a fundamental perspective that every organisation's customers can be categorised as either promoters, passives or detractors. Promoters have been identified by Reichheld (2006) as loyal, enthusiastic customers who keep buying from the organisation and urge their friends to do the same. He described the passives category as satisfied but unenthusiastic customers who are easily swayed by competitors. Detractors are illustrated by Reichheld (2006) as unhappy customers that are trapped in a bad relationship. He adds that customers can be categorised according to their responses: on an 11 point scale of 0 to 10, a nine or a ten (that is a response value greater than or equal to 90%) equates to promoters, a value of zero through to six (that is a response value of less than or equal to 60%) equates to detractors and the values seven and eight are passives. This is an extremely demanding measure of customer satisfaction since it is designed to measure how many net promoters the organisation actually has. Within this thesis students are asked to rate their responses on a seven point scale as it creates a wide enough set of options for consumers to respond to, allowing for consumer response variation and is more commonly used in academic research (Hair et al. 1998; Tabachnick & Fidell 2001). As Reichheld (2006, p. 88) states:

*...the link between survey responses and customer behaviour is always shaky, debates about best practices are strictly academic...Some experts argue that a simple yes or no is best. Others advocate a 5-point scale where one means excellent, 3 represents neutral, and 5 means poor. Still others prefer to reverse that 5-point scale.*

Therefore on the seven point scale used to collect student data: promoters equate to response values of sixes and sevens, detractors are those who score between one and four and the passives are those who score a five. In order to calculate the net promoter score the percentage of customers who are promoters (P) and detractors (D) need to be calculated. The net promoter score is then calculated by subtracting the percentage of detractors from the promoter percentage. Therefore this equation can be written as shown in Equation 1 below.

Equation 1:             $NPS = P - D$

Reichheld (2006) states that the average organisation produces an NPS efficiency of only 5 to 10%, and that some entire industries have negative net promoter scores. These organisations with negative net promoter scores are actually creating more detractors than promoters on a daily basis. It is not known whether within the university sector net promoter scores are within Reichheld's (2006) reported norm of 5-10% or whether they are negative.

The Cronbach's alpha analysis tests the reliability of scales. This will be used to test the uncertainty avoidance, helping, learning community, good teaching, quality, value and loyalty scales. A Cronbach's alpha coefficient of less than 0.6 suggests a poor association; an alpha coefficient of 0.6 to 0.7 indicates a moderate association; an alpha coefficient of 0.7 to 0.8 suggests a good association; an alpha of 0.8 to 0.9 indicates a very good association; and an alpha coefficient of 0.9 suggest an excellent association. However it is also important to note that if the Cronbach's alpha coefficient is above 0.95, the items need to be inspected to ensure they measure different aspects of the concept (Hair et al. 1998).

## **4.6.2 Advanced Statistical Analyses**

This section is presented through two subsections. The first subsection presents a description of the confirmatory factor analyses to be conducted within this thesis. Two extraction methods are also outlined within this first subsection. Subsection two presents the cross-validation analyses using structural equation modelling that will also be conducted in this thesis.

### **4.6.2.1 Confirmatory Factor Analyses**

Confirmatory factor analyses (CFAs), also known as congeneric factor analyses when the scale is uni-dimensional, were performed using the analysis of moment structures (AMOS version 6) software to explore the relationships among a number of variables (Hair et al. 1998). These relationships are represented by principal components or factors. The variables that load on a factor become the descriptors of the underlying dimension. Therefore an examination of these variable loadings on the factors gives rise to understanding the underlying dimension (Hair et al. 1998). Structural equation

modelling allows for a statistical test of the goodness-of-fit for the proposed confirmatory factor solution which is not possible with principal components or factor analysis (Hair et al. 1998). Hair et al. (1998: 617) state that *confirmatory factor analysis is particularly useful in the validation of scales for the measurement of specific constructs*.

Congeneric factor analyses will be used to assess the validity of the measurement models of the variables: uncertainty avoidance, learning community, good teaching, helping, quality, value, and loyalty. A mixture of fit-indices was used to assess the overall fit of the measurement models, as suggested by Politis (2001; 2002; 2003b; 2003a; 2003c; 2004; 2005). These fit measures include: the ratio of chi-square to degrees of freedom ( $\chi^2/df$ ), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the comparative fit index (CFI), the Tucker and Lewis index (TLI), the root mean square (RMR) and root mean square error approximation (RMSEA) were used.

A ratio of chi-square to degrees of freedom ( $\chi^2/df$ ) of less than or equal to two indicates a good fit (Byrne 1998; Hair et al. 1998; Tabachnick & Fidell 1996). However as outlined by Loehlin (1992) and Politis (2001; 2002; 2003b; 2003a; 2003c; 2004; 2005) absolute indices can be adversely affected by sample size the GFI, AGFI, CFI, TLI, RMR and RMSEA were computed to provide a more robust evaluation of model fit. Politis (2001; 2002; 2003b; 2003a; 2003c; 2004; 2005), Marsh, Bella and McDonald (1988) and Hair et al. (1998) stated that a good fit for the GFI, AGFI, CFI and TLI is above 0.9. Browne and Cudeck (1993) state that evidence of good fit for the RMR and RMSEA is considered to be less than 0.05. However values from 0.05 to 0.10 indicate a moderate fit and values greater than 0.10 suggest a poorly fitted model.

There were two types of statistical analyses, the measurement model fit and the maximised reliability using the reliability composite, conducted to extract the construct reliabilities, the variance, regression coefficient ( $\lambda$ ) and the measurement error variances ( $\theta$ ) of the measurement model. These two methods are outlined below.

#### 4.6.2.1.1 Method 1: The Measurement Model Fit

The first method to be employed is using the 'Measurement Model Fit', outlined by Hair et al. (1998), where the construct reliability will be calculated by using equation two below. The variance extracted will be calculated using equation three below.

Equation 2:

$$\text{Construct reliability} = \frac{(\sum \text{standardised loadings})^2}{(\sum \text{standardised loadings})^2 + \sum \text{indicator measurement error}}$$

Equation 3:

$$\text{Variance extracted} = \frac{\sum \text{squared standardised loadings}}{\sum \text{squared standardised loadings} + \sum \text{indicator measurement error}}$$

The reliability and variance extracted measures for each construct assesses whether the specified indicators are sufficient in their representation of the constructs (Hair et al. 1998). The recommended level for the reliability construct and the variance extracted is 0.70 and 0.50 respectively (Hair et al. 1998). The regression coefficient ( $\lambda$ ) and the measurement error variances ( $\theta$ ) of the measurement model will be calculated by using equations four and five below:

$$\text{Equation 4: } \lambda = \sqrt{\alpha}$$

$$\text{Equation 5: } \theta = 1 - \alpha$$

Where:  $\alpha$  is the Cronbach's alpha for the construct.

#### 4.6.2.1.2 Method 2: Maximised Reliability, using the reliability of the composite (r.c)

The second method employed was using the 'Maximised Reliability', using the reliability of the composite (r.c), outlined by Politis (2001). He stated that it is possible to compute an estimated score ( $\xi_i$ ) for each subject using factor score regression weights ( $\omega_j$ ). This data is provided in the output of the AMOS statistics program (Politis 2001), see equation 6 below.

Equation 6:  $\xi_i = \sum \omega_i x_i$

Where:  $\xi$  = the estimated score,  $\omega$  = is the row vector of factor score regression weights, and  $x$  = a column vector of the subject's observed indicator variables (Politis 2001). The initiating structure composite scale will be created for each of the indicators (uncertainty avoidance, learning community, good teaching, helping, quality, value and loyalty) in the measurement model. Then the composite reliability ( $r_c$ ) for each of these latent variables will be determined. These composite reliability estimates will then be built into the structural model to examine the hypotheses. This analysis is consistent with Politis (2001; 2002; 2003b; 2003a; 2003c; 2004; 2005), Joreskog and Sorbom (1989) and Munck (1979).

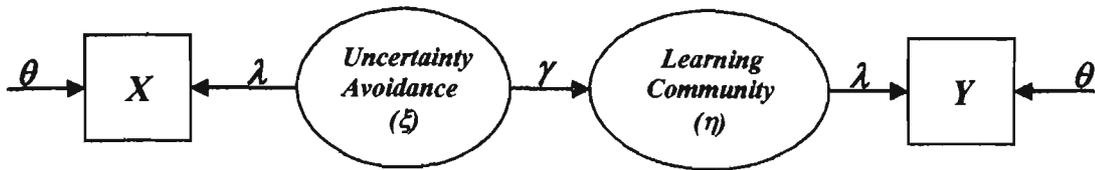
Statistically it is possible to fix the regression coefficient ( $\lambda$ ) and the measurement error variances ( $\theta$ ) (Munck 1979). The regression coefficient ( $\lambda$ ) (Politis 2001: 358) *reflects the regression of each composite variable on its latent variable...and the measurement error variance ( $\theta$ ) associated with each composite variable.* Where the matrix to be analysed consists of co-variances amongst the composite variables  $\lambda$  and  $\theta$  can be calculated by using equations 7 and 8 below (Munck 1979; Politis 2001).

Equation 7:  $\lambda = \sigma \sqrt{\alpha}$

Equation 8:  $\theta = \sigma^2(1-\alpha)$

Where:  $\lambda$  = regression coefficients,  $\theta$  = measurement error variances,  $\alpha$  = composite reliability coefficient ( $r_c$ ),  $\sigma$  = standard deviation (SD) of composite measures, and  $\sigma^2$  = variance of composite measure (Politis 2001, p. 359). Equations 7 and 8 above will be used to compute the regression coefficients ( $\lambda$ ) and measurement error variances ( $\theta$ ). In turn these values will be used as fixed parameters in the structural model, refer to Figure 4.5 below for a simplified path model. The hypothesised causal relationships can be tested for statistical significance. A wide range of statistical fit indices will be used to assess the overall fit of the measurement models including: the ratio of chi-square to degrees of freedom ( $\chi^2/df$ ), GFI, AGFI, CFI, TLI, RMR and RMSEA.

**Figure 4.5: Simplified structural (path) model**



Where:

X and Y = composite latent variables derived from measurement model

$\lambda$  = regression coefficients computed by equation 7

$\theta$  = measurement error variances computed by equation 8

$\gamma$  = the regression coefficient of the regression of  $\eta$  on  $\xi$

(Source: Politis 2001, p. 359)

#### 4.6.2.2 Cross-Validation Analyses using Structural Equation Modeling

The measurement model scales: uncertainty avoidance, learning community, good teaching, helping, quality, value and loyalty will then be subjected to a series of regression analyses. The AMOS and SPSS statistical package will be used in the path analysis. Schumacker and Lomax (1996, p. 182) state that:

*Popular approaches to validating the results of a study are to replicate the study either by obtaining a second set of data (time, money, and resources permitting), or by splitting the existing sample, given that the sample size is sufficient, and running the analysis on the two smaller samples.*

This is known as cross-validation. Cross-validation will be used for this analysis, and the data will be divided into two groups. The first group is the ‘calibration sample’, and the second group is the ‘validation sample’. It is anticipated that some modification indexes will be suggested as part of the investigation.

Following Byrne (1998) these would only be accepted if they:

- (a) Were consistent with substantive theory;
- (b) Were consistent with pooled data from various indices of fit; and
- (c) Were parsimonious.

To test if modification indexes were simply capitalizing on chance Byrne’s (1998) procedure of using a hold-out sample will be used. The data will be split by

generating a random sample in SPSS. The random sample cases will be saved twice. The first file will delete the non-selected cases and will be saved as the 'calibration sample'. The second file will delete all of the cases that were selected in the random selection process. This second file will become the 'validation data set'. During the calibration stage analyses, constructs that do not add to the explained variance will be deleted from further analysis. The model will then be tested with the validation sample.

## **4.7 Conclusion**

This chapter discussed the justification and selection of scales to measure student-based brand equity and the supportive university learning environment constructs. It also presented the items within the three scales selected to gauge the student-based brand equity construct: brand loyalty, perceived quality and value for cost. Yoo and Donthu's (2001) Overall Brand Equity (OBE) scale was selected to measure the brand loyalty perceptions of postgraduate business students towards the university. Netemeyer et al.'s (2004) quality and value for cost scales were selected to measure postgraduate business students' perceptions. The global item measuring students' importance ratings of the university's reputation is also presented. The justification and selection of the learning community scale developed by McInnis et al. (2001), the good teaching scale developed by Ramsden (1991; 1992), and the helping scale developed by Podsakoff and Mackenzie (1994) was also discussed. The items of each of these scales were also presented in this chapter. The scale chosen to measure the level of students' uncertainty avoidance culturally-anchored value orientation by Robertson and Hoffman (2000), which was based on Hofstede's (1980; 1991; 2001) uncertainty avoidance cultural dimension was also justified. This study's propositions were revisited and then operationalised into hypotheses. This chapter concluded by outlining the methods to be used in this thesis. Specifically it provided details on the sample and also highlighted the non-statistical and statistical procedures that will be undertaken within this thesis. Chapter 5 presents the results of this thesis. It presents the findings of the non-statistical and statistical procedures outlined in this chapter.

# Chapter 5: Results

## 5.1 Objectives and Structure of the Chapter

This chapter presents the results of this thesis. The results are presented in four sections. The first section presents an overview of the sample. Section one is presented through two subsections: sample demographics and course related information; and the calibration sample. The sample demographics and course related information subsection presents an overview of the total sample and the calibration sample subsection presents the initial calibration data analyses.

Section two of this chapter presents the measurement model, which is presented through seven subsections: uncertainty avoidance, learning community, good teaching, helping, quality, value and loyalty. Within each of the seven subsections the results of the measurement fit model and the maximised reliability methods are presented.

The third section of this chapter presents the calibration model and is presented via two subsections: correlational analyses and structural equation modelling. The final section of this chapter, section four, discusses the validation of the structural equation model.

## 5.2 Sample Overview

The first component of this section presents an overview of the total sample. Specifically it presents details about the total sample's citizenship status, gender, and by Master of Business degree programs by specialisation. The second component of this section, the calibration sample subsection, presents the initial calibration data analyses. These initial analyses include: the calibration sample's citizenship status, gender, Master of Business degree programs by specialisation, and students' perceptions of: loyalty; quality; value; the university's reputation importance; the university's learning community; academic support (good teaching); administrative support (helping); and their uncertainty avoidance culturally-anchored value

orientations. The net promoter scores for the student-based brand equity components and the supportive university learning environment is also discussed.

### **5.2.1 Total Sample Demographics and Course Related Information**

The gender of participants within this sample is approximately even with 236 females and 274 males. Participants' citizenship was varied with 60.9% from Asia, 33% from Australasia, 3% from Europe, 2.7% from Africa and 0.4% from South America. Asia had the largest representation within this study with 310 participants. Southern Asian countries formed a large sub-sample with 108 participants. India had the largest rate of participants within this sub-sample with 92. Pakistan had 8 participants, Bangladesh had 5 participants, Sri Lanka had 2 participants and the Maldives had 1. Countries from Eastern Asia also formed a large sub-sample with 106 participants, comprising of China with 97 participants, Japan, Hong Kong, Korea and Taiwan with 4, 3 and 2 participants each respectively. South-eastern Asia also had significant representation within this study with 85 participants. Thailand had the most participants from this sub-sample with 31, Indonesia, Malaysia, Vietnam, and Cambodia also had good representation with 19, 14, 10 and 6 participants respectively. Singapore and the Philippines were also represented with 2 participants each. Laos had 1 participant. The Middle East was represented by Oman and Saudi Arabia and this sub-sample comprised of 7 participants, 5 from Oman and 2 from Saudi Arabia. Northern Asia was represented by Mongolia with 1 participant.

Australia had the second highest representation within this sample with 164 participants. New Zealand, Papua New Guinea and Vanuatu were also represented within this thesis with 2, 1, and 1 participant respectively. The European continent had a small representation of 17 participants. The European Union was widely represented with participants from Lithuania, Denmark, The Netherlands, Poland, Malta, France, Italy, Germany, Sweden and Austria and a European Union Candidate country: the Former Yugoslav Republic of Macedonia. Lithuania, France, Germany and Poland each had 2 participants within this study and Denmark, Italy, The Netherlands, Sweden, Austria, Malta and the Former Yugoslav Republic of Macedonia all had 1 participant respectively. The other European countries represented within this study were Norway and Albania with 1 participant each. The

African continent was also represented within this study with 14 participants. Northern Africa was represented with single participants from Egypt and Morocco. Eastern Africa had representation from Kenya with 4 participants and Uganda with 1 participant. Southern Africa was also represented within this study with 4 participants from Mauritius, 2 from South Africa and 1 from Mozambique. The continent of South America was represented within this thesis with 2 participants from Colombia.

Students were sampled from all schools within the Faculty of Business and Law at a large metropolitan university in Melbourne, Australia and the largest cohort of participants were from the School of Accounting and Finance with 225 participants (44%). The Graduate School of Business, the School of Hospitality Tourism and Marketing, the School of Management and the School of Information Systems were also well represented within this sample with 92 (18%), 71 (14%), 56 (11%) and 51 (10%) participants respectively. The School of Applied Economics had the least representation with 15 participants (3%).

### **5.2.2 Calibration Sample Initial Data Analyses**

The calibration sample as stated earlier was generated by a random sample split in SPSS where the non selected cases were deleted to form the calibration sample. The calibration sample is used to test the measurement model as well as to develop the structural equation model. This section presents the initial data analyses conducted on the calibration data set, and is presented via five subsections. The first subsection presents the demographic and course related information results. Subsection two discusses the initial results of the university's reputation importance ratings. The third subsection discusses the initial uncertainty avoidance culturally-anchored value orientation results. Subsection four presents the initial results of the supportive university learning environment dimensions: learning community, good teaching and helping and the fifth subsection presents the initial results on the student-based brand equity dimensions: quality, value and loyalty.

### **5.2.2.1 Demographic and Course Related Information**

The calibration sample comprised of 255 participants. The gender of participants within this sample was approximately even with 116 females and 139 males. Sixty two percent of these participants were from Asia, 29 percent from Australia, 4.2 percent from Europe, 3 percent from Africa, 0.8 percent from South America and 0.5% respectively from Papua New Guinea and Vanuatu. A closer analysis of the citizenship status of the calibration sample found that Asia had the highest representation with 158 participants. Southern Asia had a large sub-group of this Asia grouping with 57 participants. India had the highest representation within this Southern Asia sub-group, with 49 participants. However Pakistan, Bangladesh, and Sri Lanka were also represented with 4, 3 and 1 participant respectively within the Southern Asia group. Eastern Asia also had a large sub-group of the Asia grouping with 55 participants. China had the highest representation within the Eastern Asia sub-sample with 49 participants. Japan had 3 participants, whilst Hong Kong, Korea, and Taiwan each had 1 participant. South-eastern Asia was also reasonably well represented within the Asia grouping with 41 participants. Thailand, Indonesia and Malaysia also had the largest representation of South-eastern Asia with 15, 11 and 6 participants respectively, where Vietnam and Cambodia had 3 participants, Singapore and the Philippines had 2 participants and Laos had 1. The Middle East was also represented within the calibration sample through Oman with 2 participants and Saudi Arabia with 1 participant.

Australia had a total of 74 participants within the calibration sample and Vanuatu and Papua New Guinea were also represented with 1 participant each. Europe had a total of 11 participants where The European Union was widely represented within the calibration sample with 10 participants. Lithuania, Germany and Poland each had two participants. Denmark, Italy, Sweden and a European Union Candidate country: the Former Yugoslav Republic of Macedonia all had 1 participant respectively, and the other European country represented was Albania also with 1 participant. Africa was also represented within the calibration sample and had 8 participants, 5 from Southern Africa (3 from Mauritius, 1 from South Africa and 1 from Mozambique), 2 from Eastern Africa (both from Kenya) and 1 from Northern Africa (Egypt). South

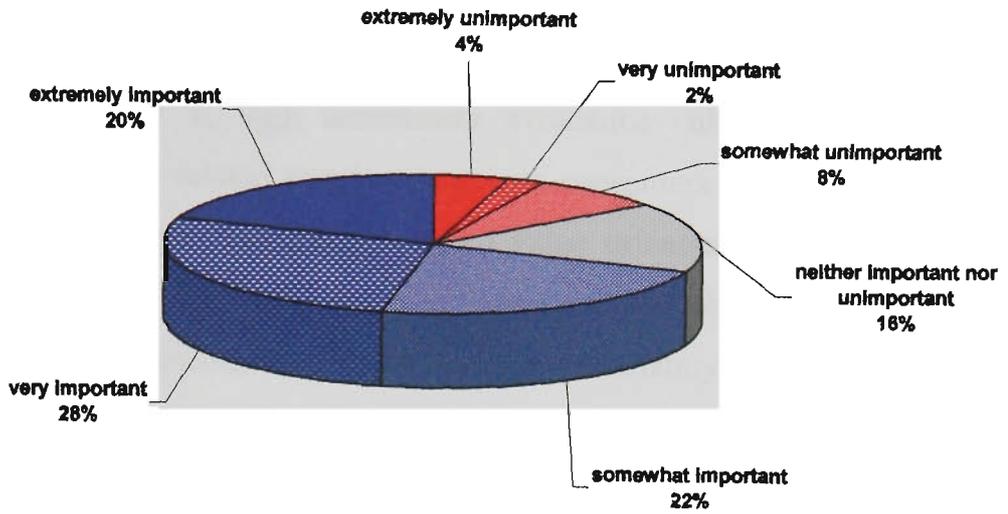
America was also represented within the calibration sample with 2 participants from Colombia.

The largest subgroup of participants within the calibration sample was from the School of Accounting and Finance with 112 participants (44%). The Graduate School of Business, the School of Hospitality Tourism and Marketing, the School of Management and the School of Information Systems were also well represented within the calibration sample with 46 (18%), 38 (15%), 23 (9%) and 31 (12%) participants respectively. The School of Applied Economics had the least representation with 5 (2%) participants.

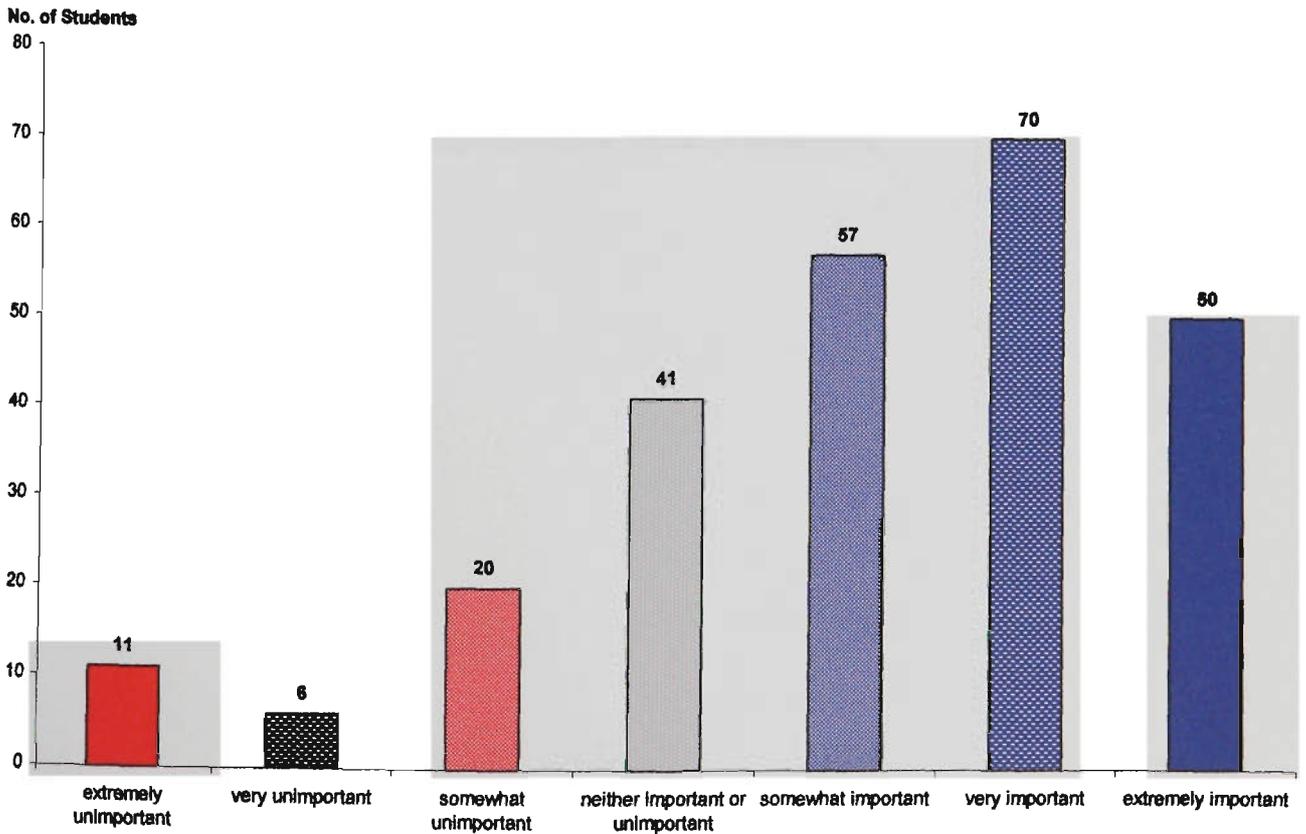
#### **5.2.2.2 University Reputation Importance Initial Results**

It was found that the mean value of university reputation importance was 5.1, (with the minimum and maximum scaled values of 1 and 7 respectively). That is 71% of students stated that the university's reputation was an important factor in the selection process. These results suggest that the university's reputation was somewhat important in students' university selection. As illustrated in Figures 5.1 and 5.2 the majority of students, over 70%, agreed that the university's reputation is an important component of their university selection. Fifty students (20%) stated that university reputation was extremely important, 70 students (28%) stated the university's reputation was very important and 57 students (22%) believed that the university's reputation was somewhat important in their university selection. A total of 41 students (16%) expressed that the university's reputation was neither important nor unimportant to them. The remaining 14% of students stated that the university's reputation was either somewhat unimportant (20 students or 8%), very unimportant (6 students or 2%), or extremely unimportant (11 students or 4%) to them in their university selection. The values presented above are rounded to the nearest integer.

**Figure 5.1: The Distribution of the Percentages of Responses to the Assessment of the Importance of University Reputation**



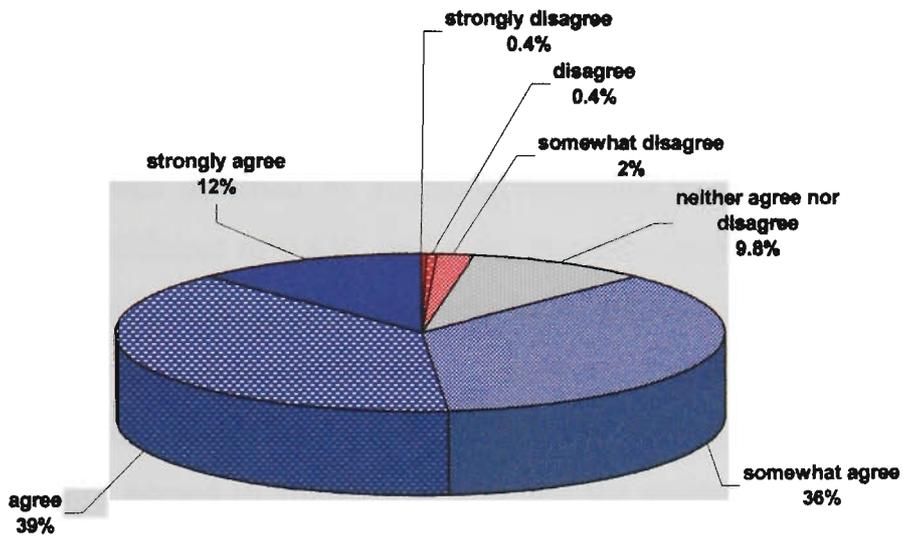
**Figure 5.2: Reputation Importance Distribution**



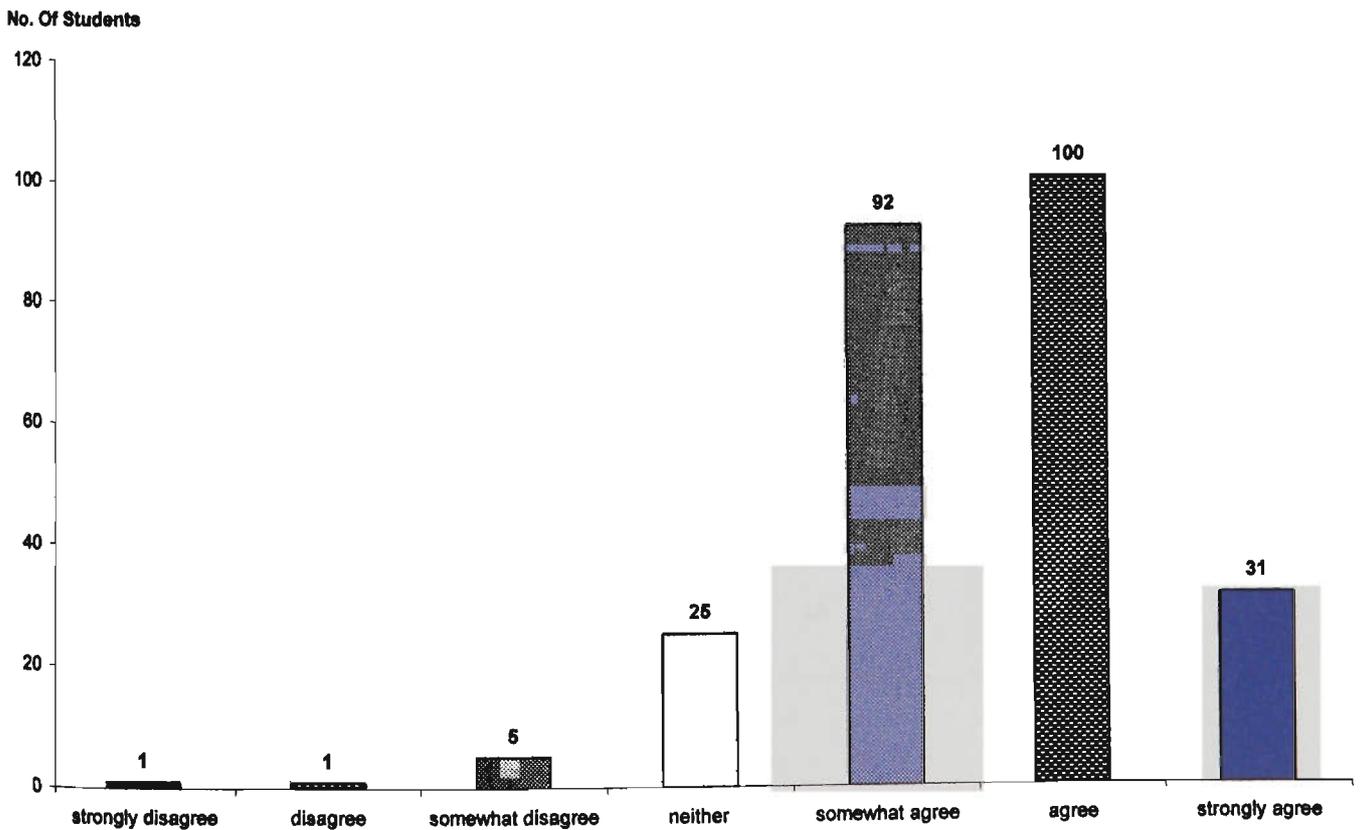
### **5.2.2.3 Uncertainty Avoidance Initial Results**

The uncertainty avoidance culturally-anchored value orientation was found to have a mean score of 5.4. Therefore 77% of students within this thesis were found to have high uncertainty avoidance culturally-anchored value orientations. As presented in Figure 1.2 in Chapter 1, high uncertainty avoidance culturally-anchored value orientations are directly related to price conscious consumers. It was also found that the uncertainty avoidance culturally-anchored value orientation was scaled with a minimum value of 1, a maximum value of 7 and a Cronbach's alpha coefficient of 0.854. Section 5.3.1 presents the results from the uncertainty avoidance congeneric factor analysis. This suggests that the student base have higher uncertainty avoidance culturally-anchored value orientations than what is considered to be the norm in a typical Australian population. Hofstede (1991; 1994; 2001) has identified Australia as being a more uncertainty accepting society. A closer examination revealed that over 80% of the student population had either somewhat high (92 students), high (100 students) or very high (31 students) uncertainty avoidance culturally-anchored value orientations. Twenty five students did not have high or low uncertainty avoidance culturally-anchored value orientations, and less than 3% of students had low uncertainty avoidance culturally-anchored value orientations as illustrated in Figures 5.3 and 5.4. Only five students had somewhat low uncertainty avoidance culturally-anchored value orientations and one student respectively had low and very low uncertainty avoidance culturally-anchored value orientations.

**Figure 5.3: The Distribution of the Percentages of Responses to the Assessment of Uncertainty Avoidance**



**Figure 5.4: Uncertainty Avoidance Distribution**



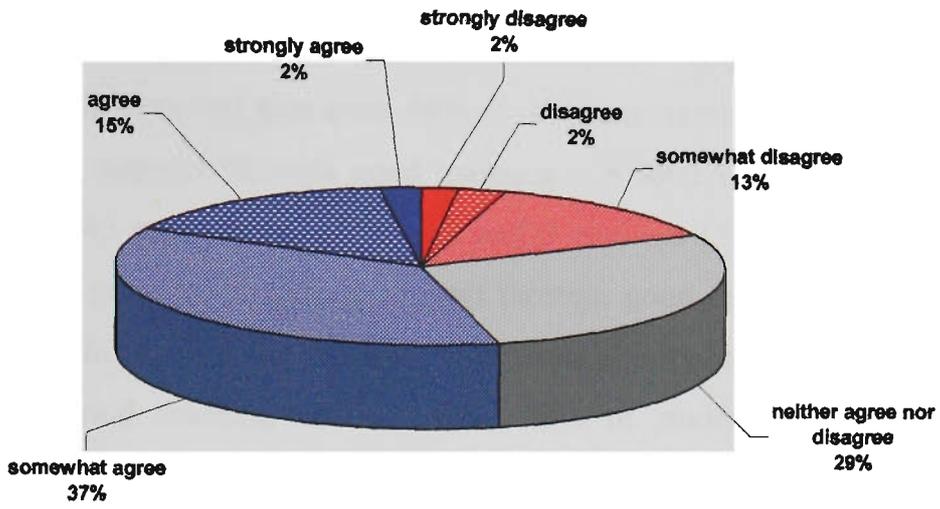
#### 5.2.2.4 Supportive University Learning Environment Initial Results

The university's learning community, academic support (good teaching) and administrative support (helping) initial results are presented below. The university's learning community mean score equated to 4.5. This suggested that 64% of students agreed that the university has an enriching learning community. The learning community dimension had: a scaled minimum and maximum value of 1 and 7 respectively, which was obtained by rounding responses to the nearest integer; a Cronbach's alpha coefficient of 0.839; and a net promoter score of -29% (see Table 5.1 below). The learning community congeneric factor analysis is presented in section 5.3.2. Figures 5.5 and 5.6 present the range of students' responses. Over half of the students surveyed either somewhat agreed (93 students or 37%), agreed (39 students or 15%), or strongly agreed (6 students or 2%) that the university has an enriching learning community. Seventy two students (29%) neither agreed nor disagreed that the university has an enriching learning community. Less than 20% of students either somewhat disagreed (34 students or 13%), disagreed (6 students or 2%) or strongly disagreed (5 students or 2%) that the university has an enriching learning community. However the learning community net promoter score of -29% as presented in Table 5.1 is significantly lower than the 5-10% norm reported by Reichheld (2006). In fact Reichheld (2006) has identified that there are many organisations that fail to have a loyalty effect by having negative net promoter scores. This suggests that students from this non elite branded, new generation university do not actively engage in positive word of mouth about the university's learning community. This negative result suggests that on a daily basis students are more likely to negatively discuss or bad mouth this university's learning community.

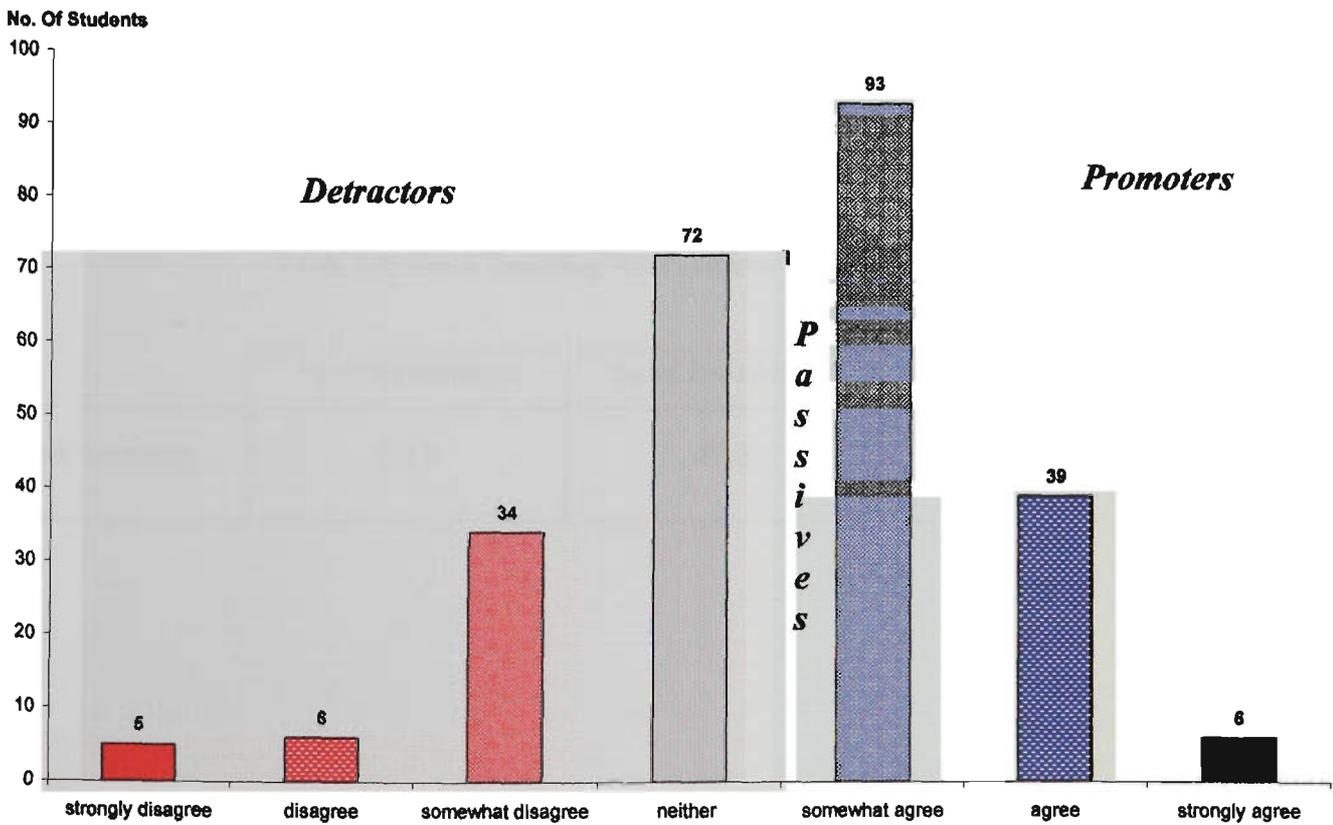
**Table 5.1: Learning Community Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Learning Community	17	46	= 17 - 46 = -29%

**Figure 5.5: The Distribution of the Percentages of Responses to the Assessment of Learning Community**



**Figure 5.6: Learning Community Net Promoter Score Distribution**

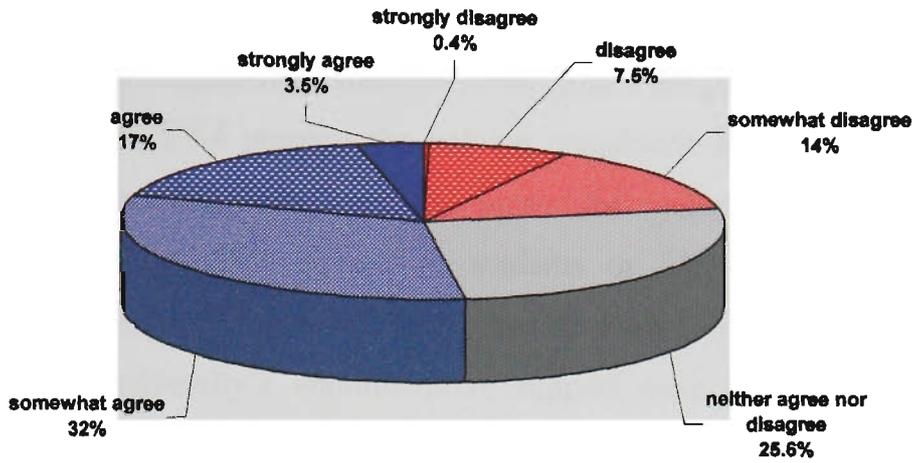


The good teaching dimension also had a scaled minimum and maximum value of 1 and 7 respectively; a mean score of 4.4 which is 63% of students agreed that there was adequate academic support through good teaching; a Cronbach's alpha coefficient of 0.848; and a net promoter score of -27%, see Table 5.2 below. Section 5.3.3 discusses the good teaching congeneric factor analysis. Students' responses illustrated in Figures 5.7 and 5.8, revealed that over 50% of students agreed that the university provided academic support through good teaching. A total of 81 students (32%) somewhat agreed, 43 students (17%) agreed and 9 students (3.5%) strongly agreed that the university provided academic support through good teaching. Sixty seven students (26%) neither agreed nor disagreed that the university had provided academic support through good teaching and less than 22% of students either somewhat disagreed (35 students or 14%), disagreed (19 students or 7.5%) or strongly disagreed (1 student or 0.4%) that the academic staff provide academic support through good teaching. The good teaching net promoter score of -27% just like the learning community net promoter score of -29% reflects much, much lower scores than the norm of 5 to 10% reported by Reichheld (2006). This also suggests that this non elite branded, new generation university's students do not actively engage in positive word of mouth about the academic support received, and is likely to create negative associations about the level of academic support received from this university. In other words creating low loyalty effects towards the university's academic support.

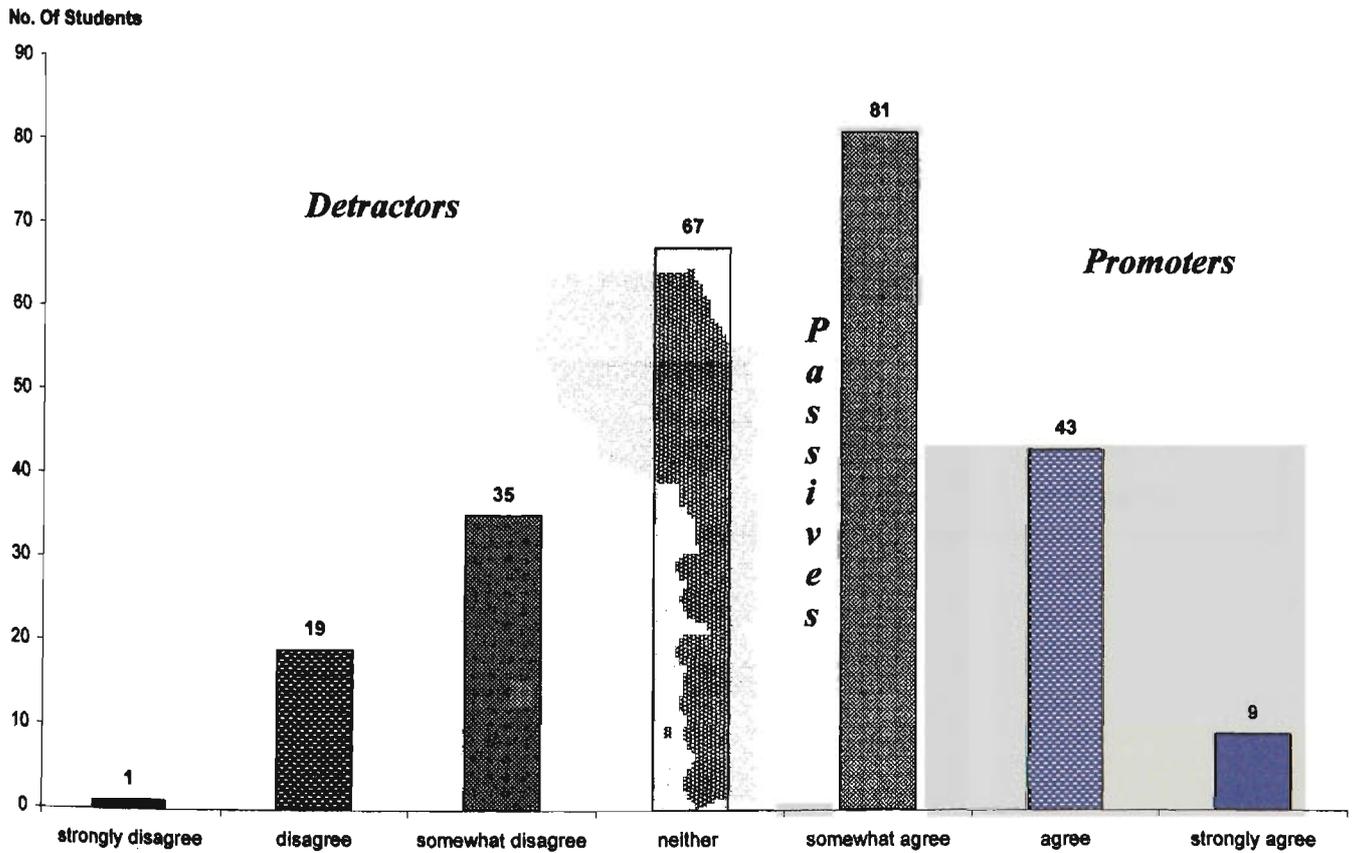
**Table 5.2: Good Teaching Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Good Teaching	20.5	47.5	= 20.5 - 47.5 = -27%

**Figure 5.7: The Distribution of the Percentages of Responses to the Assessment of Good Teaching**



**Figure 5.8: Good Teaching Net Promoter Distribution**

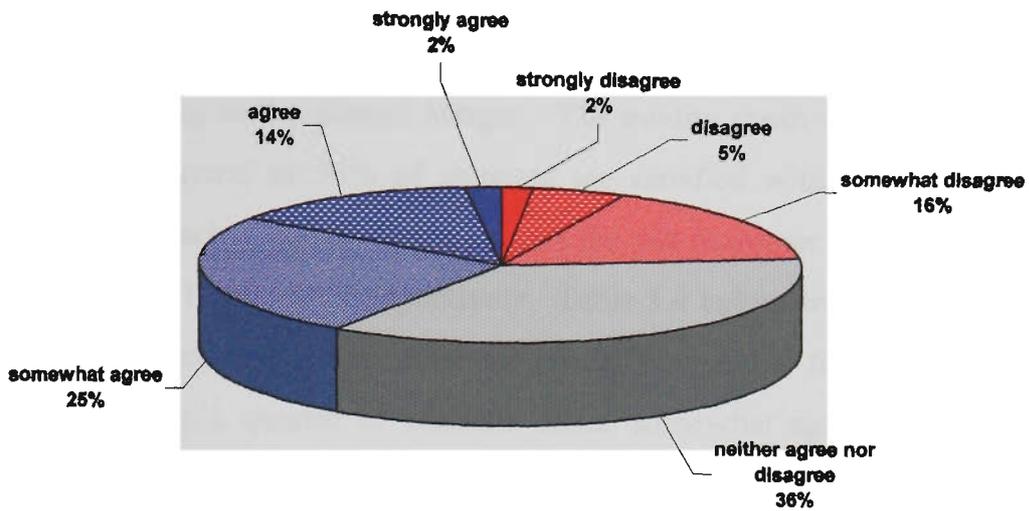


Administrative support helpfulness like good teaching and learning community had a scaled minimum value of 1 and a maximum value of 7 which was obtained by rounding to the nearest integer. Helpful administrative support had: a mean value of 4.2, in other words 60% of students perceive the university's administrative support as adequate; a Cronbach's alpha coefficient of 0.902; and a net promoter score of -43% see Table 5.3. Section 5.3.4 presents the helping congeneric factor analysis. Almost half of the students sampled either somewhat agreed (64 students or 25%), agreed (35 students or 14%) or strongly agreed (5 students or 2%) that the university's administrative support were helpful. Ninety two students (36%) neither agreed nor disagreed that the university's administrative support were helpful. Less than a quarter of the students either somewhat disagreed (42 students or 16%), disagreed (13 students or 5%) or strongly disagreed (4 students or 2%) that the university's administrative support were helpful as highlighted in Figures 5.9 and 5.10. The helping net promoter score of -43% was almost double to that of the learning community (-29%) and the good teaching (-27%) net promoter scores. This strongly suggests that students studying at this non elite branded, new generation university are extremely dissatisfied with the level of administrative support they receive. These students are also likely to engage in negative word of mouth about this university's administrative support.

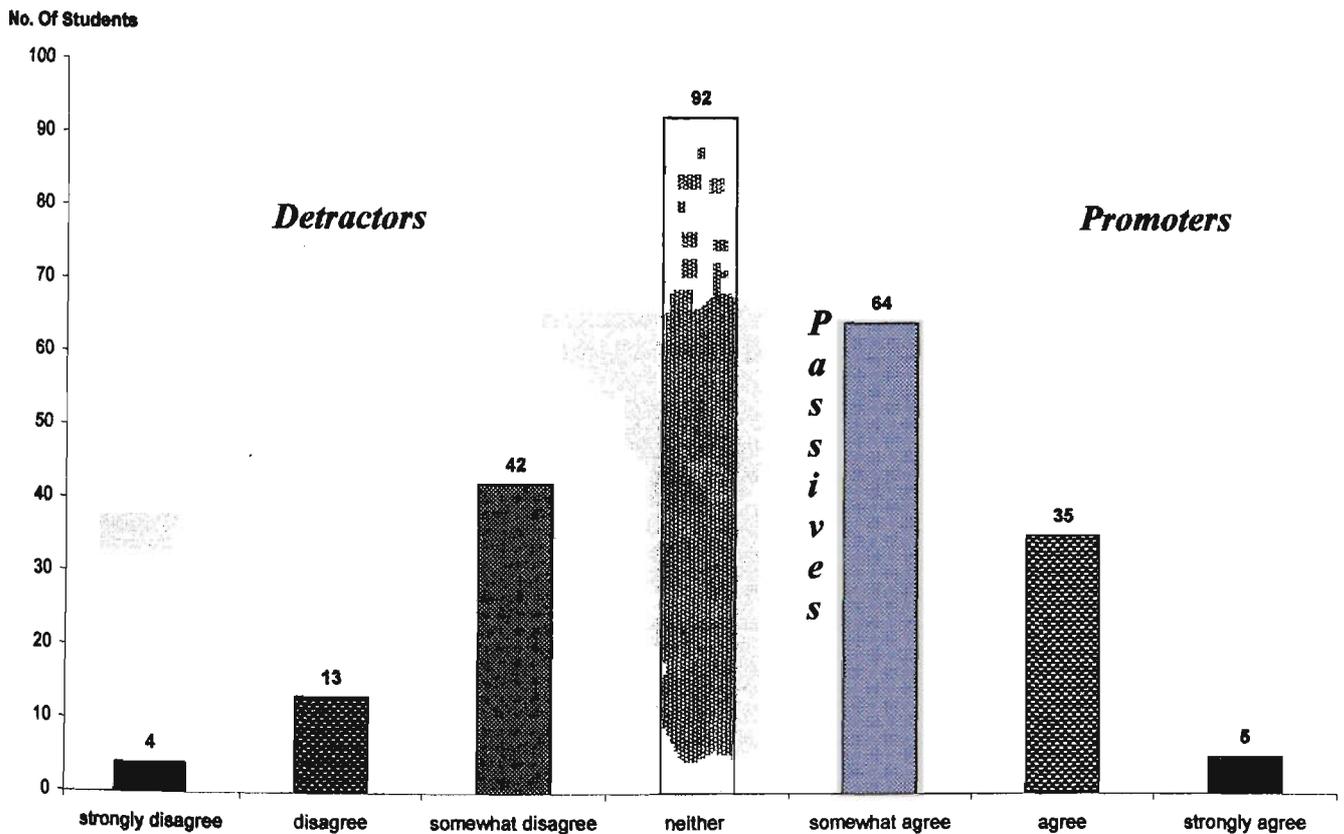
**Table 5.3: Helping Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Helping	16	59	= 16 - 59 = -43%

**Figure 5.9: The Distribution of the Percentages of Responses to the Assessment of Helping**



**Figure 5.10: Helping Net Promoter Distribution**



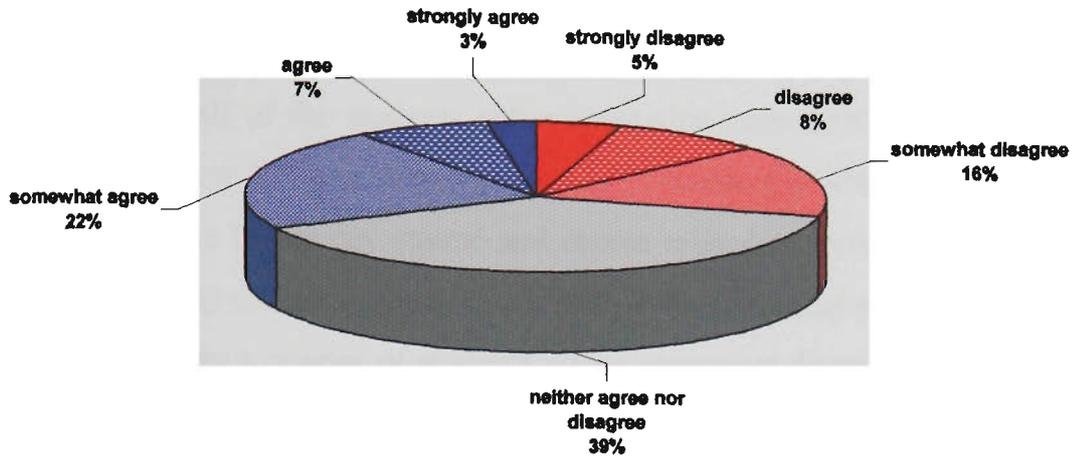
### 5.2.2.5 Student-Based Brand Equity Initial Results

The initial results for the student-based brand equity dimensions: quality, value and loyalty are presented below. The quality dimension of student-based brand equity had a scaled minimum and maximum value of 1 and 7 respectively. This scaling was obtained by rounding to the nearest integer. The quality mean value was 3.9, which may also be interpreted as 56% of students are satisfied with the quality of their course. The Cronbach's alpha coefficient and the net promoter score for the quality dimension was 0.911 and -58% respectively. Table 5.4 below presents the quality net promoter score. Section 5.3.5 presents the quality congeneric factor analysis. It was found that just over a quarter of students either somewhat agreed (57 students or 22%), agreed (19 students or 7%), or strongly agreed (7 students or 3%) that the university provided quality course and course related experiences. The majority of students (99 or 39%) neither agreed nor disagreed that the university provided quality course and course related experiences. Over a quarter of students either somewhat disagreed (40 students or 5%), disagreed (21 students or 8%) or strongly disagreed (12 students or 16%) that the university provided quality course and course related experiences. This is highlighted in Figures 5.11 and 5.12. The quality net promoter score of -58%, as presented in Table 5.4 below, suggests that on a daily basis there are many, many more detractors than promoters (Reichheld 2006). In other words there are many, many more unhappy students about the quality of their course and course related experiences than happy students. This is highly likely to result in negative word of mouth regarding the quality of this university's courses by students. This in turn is likely to create negative associations with this university's name.

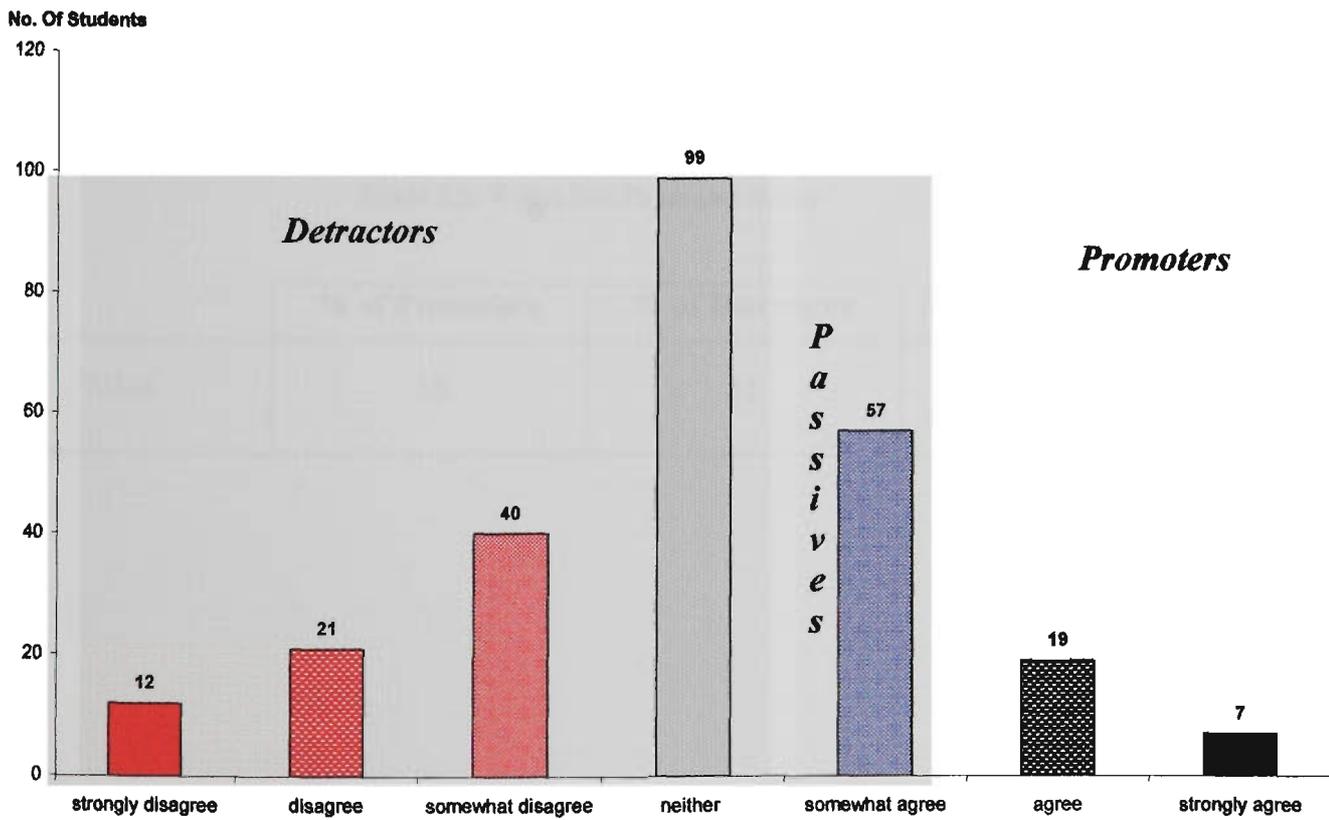
**Table 5.4: Quality Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Quality	10	68	= 10 - 68 = -58%

**Figure 5.11: The Distribution of the Percentages of Responses to the Assessment of Quality**



**Figure 5.12: Quality Net Promoter Distribution**

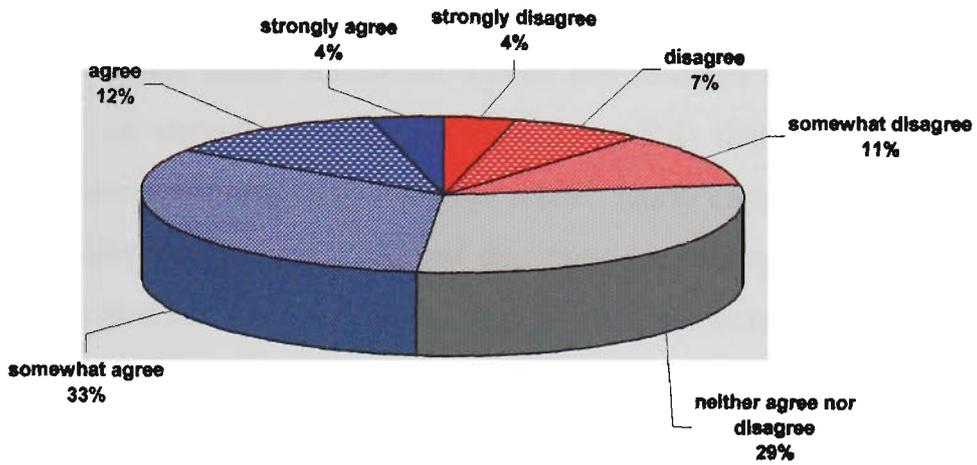


The value scaled minimum and maximum value, like quality, was 1 and 7 respectively, and was obtained by rounding to the nearest integer. The mean score for value equated to 4.3. In other words 61% of students agreed that this university provides good value for money courses. The Cronbach's alpha coefficient for value was 0.897. The value net promoter score, like quality, was negative with a score of -35% (see Table 5.5 below). Section 5.3.6 discusses the value congeneric factor analysis. Almost half of the students either somewhat agreed (83 students or 33%), agreed (31 students or 12%) or strongly agreed (10 students or 4%) that the university provided good value for money course and course related experiences. Twenty nine percent (74 students) did not agree or disagree that the university provided good value for cost and less than a quarter of students either somewhat disagreed (29 students or 11%), disagreed (18 students or 7%) or strongly disagreed (10 students or 4%) that the university provided good value for cost, as illustrated in Figures 5.13 and 5.14. The value for cost net promoter score of -35%, was almost half of the quality net promoter score of -58%, and was still well below the norm identified by Reichheld (2006). This suggests that there are many more dissatisfied students with the university's value for cost. This is likely to result in negative word of mouth which may also lead to negative associations with the university's name.

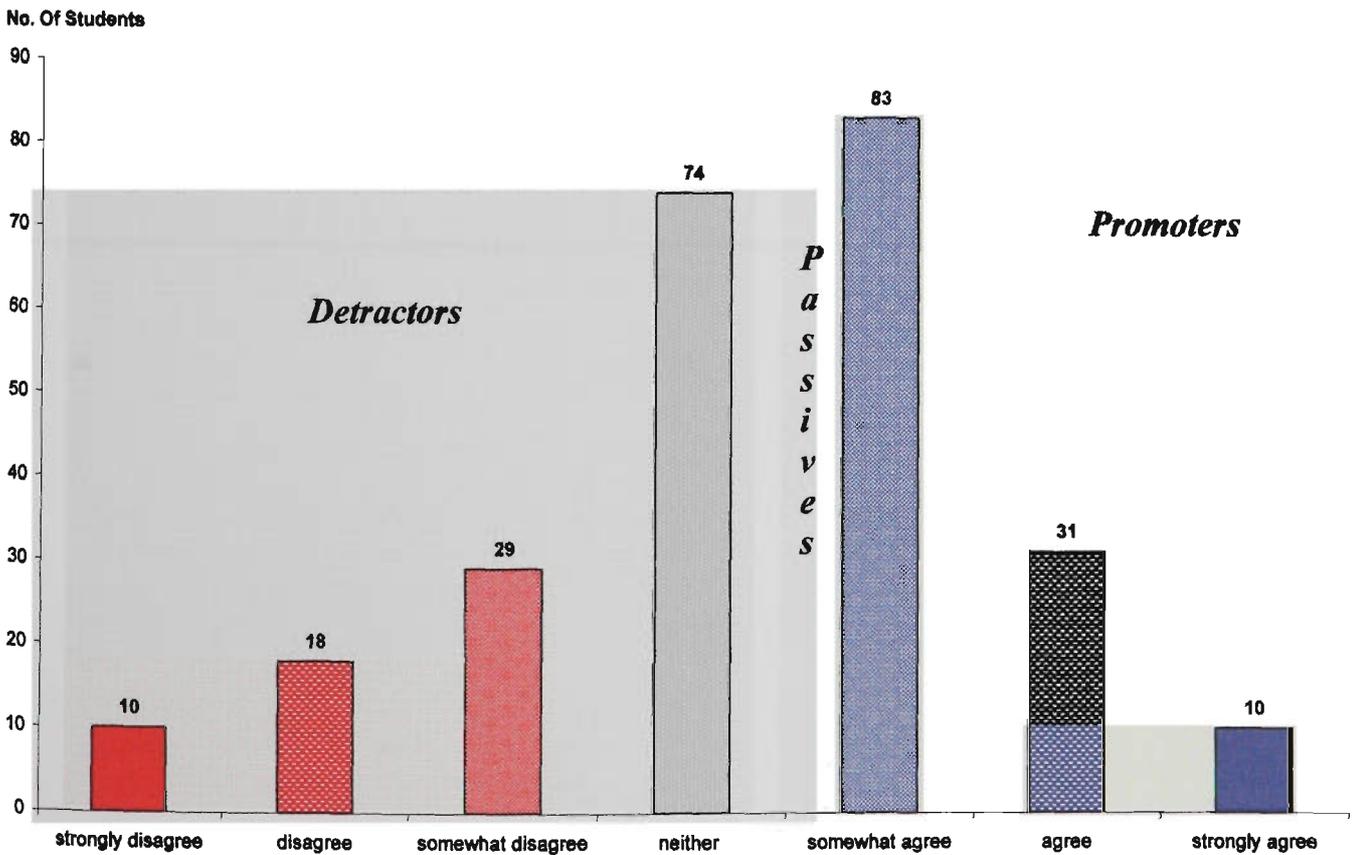
**Table 5.5: Value Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Value	16	51	= 16 - 51 = -35%

**Figure 5.13: The Distribution of the Percentages of Responses to the Assessment of Value**



**Figure 5.14: Value Net Promoter Distribution**

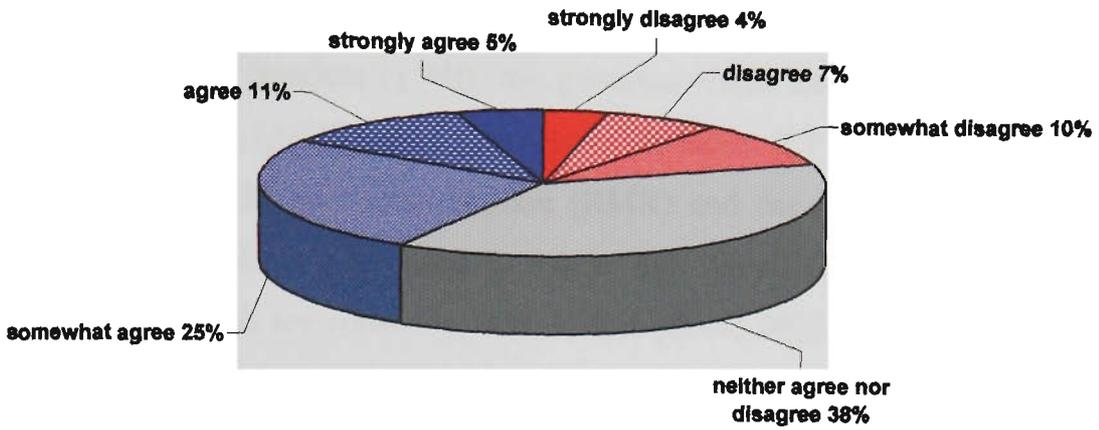


The loyalty initial results also yielded a scaled minimum value of 1, and a maximum value of 7. The loyalty mean score was 4.3, which may also be interpreted as 61% of students agree that they are willing to recommend this university and its courses to others. Loyalty also had a Cronbach’s alpha coefficient of 0.830 and a net promoter score of -43%, see Table 5.6 below. Figures 5.15 and 5.16 highlight that almost half of the students sampled either somewhat agreed (65 students or 25%), agreed (28 students or 11%) or strongly agreed (13 students or 5%) that they are willing to recommend the university and its courses to others. Thirty eight percent of students (98 students) neither agreed nor disagreed that they are willing to recommend the university and its courses to others. Less than 25% of students claimed they either somewhat disagreed (25 students or 10%), disagreed (17 students or 7%) or strongly disagreed (9 students or 4%) that they are willing to recommend the university and its courses to others. The loyalty net promoter score of -43%, see Table 5.6, is within the same magnitude as that of the quality net promoter score of -58% and the value net promoter score of -35%. This also indicates that the majority of students are not willing to recommend this university and its courses to others.

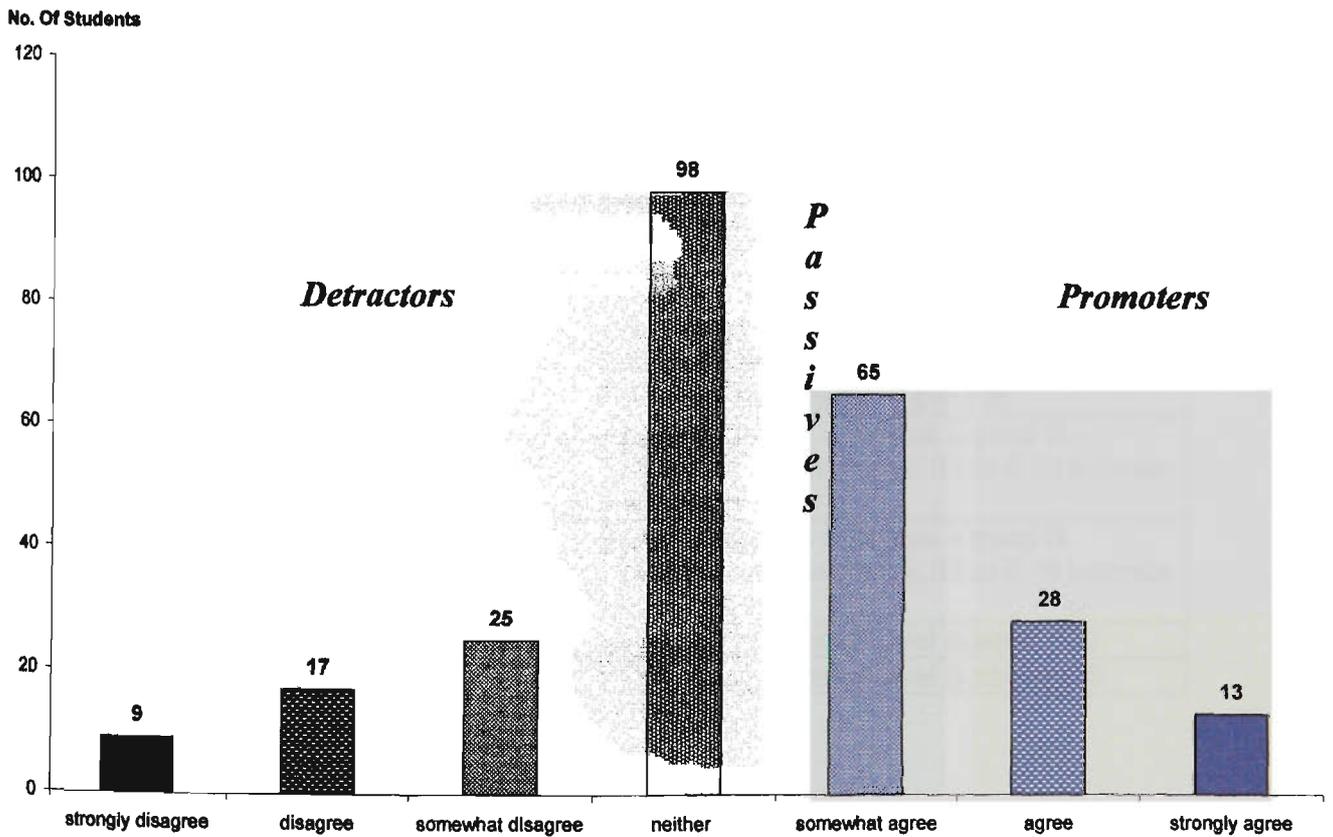
**Table 5.6: Loyalty Net Promoter Score**

	<b>% of Promoters</b>	<b>% of Detractors</b>	<b>Net Promoter Score</b>
Loyalty	16	59	= 16 - 59 = -43%

**Figure 5.15: The Distribution of the Percentages of Responses to the Assessment of Loyalty**



**Figure 5.16: Loyalty Net Promoter Distribution**



### 5.3: Testing the Measurement Model

A series of seven congeneric factor analyses were conducted to check the validity and reliability of the pre-existing scales used within this study: Uncertainty Avoidance, Learning Community, Good Teaching, Helping, Quality, Value and Loyalty. As discussed within the methodology, a mixture of fit-indices including: the ratio of chi-square to degrees of freedom ( $\chi^2/df$ ), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the comparative fit index (CFI), and the Tucker and Lewis index (TLI), the root mean square (RMR) and the root mean square error approximation (RMSEA) were used to assess the overall fit of these pre-existing scales. These methods are consistent with Politis (2001; 2002; 2003b; 2003a; 2003c; 2004; 2005), Byrne (1998), Hair et al.(1998), Tabachnick and Fidell (1996), Loehlin (1992), Marsh, Bella and McDonald (1988) and Browne and Cudeck (1993). There were also two types of statistical analyses conducted to extract the construct reliabilities, the variance, regression coefficient ( $\lambda$ ) and the measurement error variances ( $\theta$ ) of these pre-existing scales. Table 5.7 below shows the acceptable range for each of these statistical measures.

**Table 5.7: Acceptable Fits**

<b>Statistical Test</b>	<b>Acceptable Fit Range</b>
Ratio of Chi-Square to degrees of freedom ( $\chi^2/df$ ), $p > 0.05$	Less than or equal to 2 indicates a good fit.
Goodness of Fit Index (GFI)	Above 0.9 indicates a good fit.
Adjusted Goodness of Fit Index (AGFI)	Above 0.9 indicates a good fit.
Comparative Fit Index (CFI)	Above 0.9 indicates a good fit.
Tucker and Lewis Index (TLI)	Above 0.9 indicates a good fit.
Root Mean Square (RMR)	Less than 0.05 indicates a good fit. However values from 0.05 to 0.10 indicate a moderate fit.
Root Mean Square Error Approximation (RMSEA)	Less than 0.05 indicates a good fit. However values from 0.05 to 0.10 indicate a moderate fit.
Construct Reliability	The recommended level is above 0.7.
Variance Extracted	The recommended level is above 0.5.

### 5.3.1: Uncertainty Avoidance

A congeneric factor analysis was conducted on Robertson and Hoffman's (2000) Uncertainty Avoidance cultural dimension, which was derived from Hofstede's (1980; 1991; 1994; Hofstede & Bond 1988) cultural framework. The initial measurement model for the Uncertainty Avoidance cultural dimension as illustrated below in Figure 5.17 five from the eight fits were outside the acceptable fit range. This suggested that the data did not adequately fit the model.

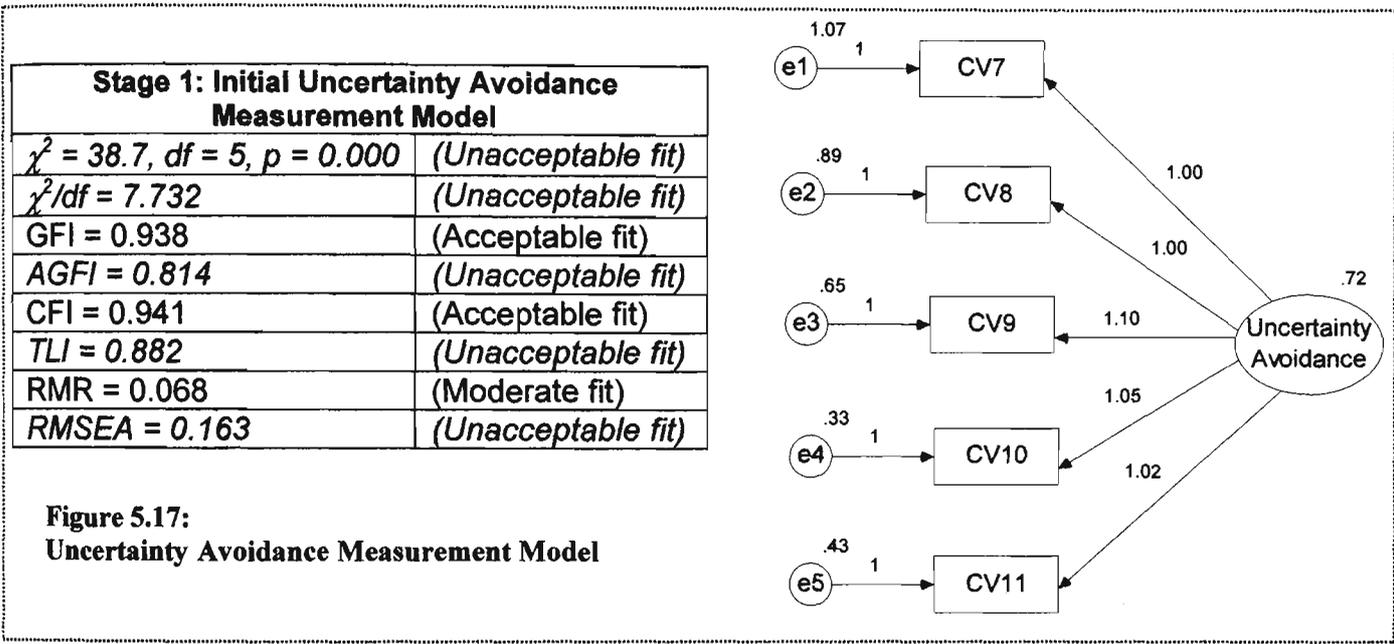


Figure 5.18 below shows the Uncertainty Avoidance cultural dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support had been carried out. These changes involved co-varying three pairs of measurement error variances. The results of making these changes were that these five measures of fit showed that the empirical data fitted the improved measurement model.

Stage 2: Improved Uncertainty Avoidance Measurement Model	
$\chi^2 = 3.4, df = 2, p = 0.183$	(Acceptable fit)
$\chi^2/df = 1.7$	(Acceptable fit)
GFI = 0.995	(Acceptable fit)
AGFI = 0.961	(Acceptable fit)
CFI = 0.998	(Acceptable fit)
TLI = 0.988	(Acceptable fit)
RMR = 0.028	(Acceptable fit)
RMSEA = 0.052	(Moderate fit)

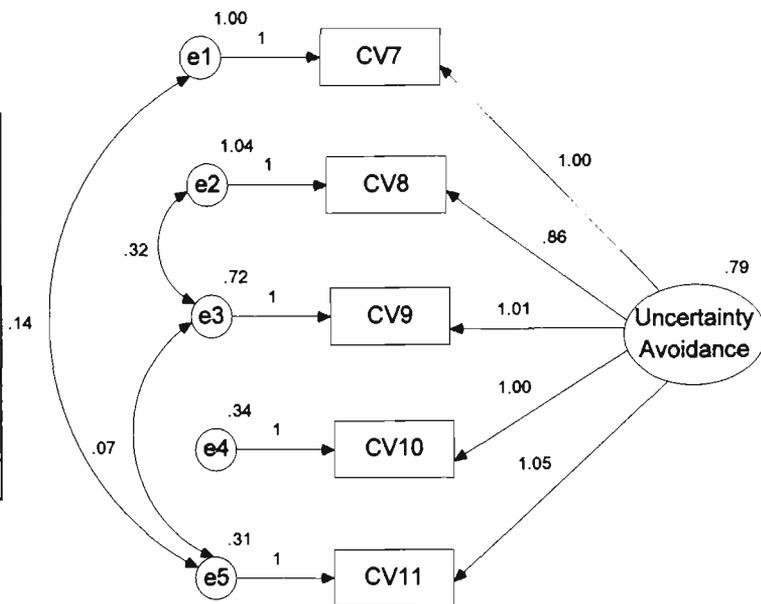


Figure 5.18: Improved Uncertainty Avoidance Measurement Model

As outlined in the methodology, two methods were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model. The first method was using Hair et al. (1998) Measurement Model Fit method which uses the construct's Cronbach's alpha and the standard deviation of the sample. The second method used was the Maximised Reliability, using the reliability of the composite (r.c), as the constructs used within this study are truly congeneric this method maximises the reliability by using the r.c model as outlined in the methodology (Politis 2001). Table 5.8 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.9 presents the Maximised Reliability as discussed by Politis (2001). Please refer to Appendix A for the Measurement Fit Model calculations and Appendix B for the Maximised Reliability calculations.

Table 5.8 Uncertainty Avoidance Measurement Model Fit

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Uncertainty Avoidance	5.329	0.964	0.854	0.859	0.554	0.891	0.136

Table 5.9 Uncertainty Avoidance Maximised Reliability

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Uncertainty Avoidance	5.410	0.959	0.875	0.921	0.897	0.115

The reliability of the uncertainty avoidance construct has met the recommended level of above 0.70. The uncertainty avoidance construct has also exceeded the minimum

requirement of 0.50 for the variance extracted as stipulated by Hair et al. (1998). As expected the maximised reliability model is stronger than the measurement model fit, as it is the most stringent method (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.19 shows the results of aggregating the items of the Uncertainty Avoidance scale.

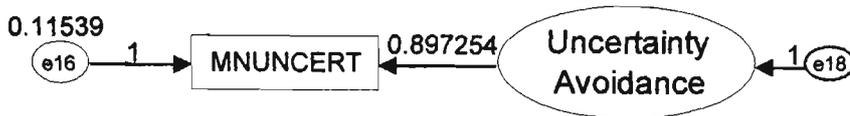


Figure 5.19: Uncertainty Avoidance Scale

### 5.3.2: Learning Community

A congeneric factor analysis was conducted on McInnis et al.'s (2001) Learning Community course experience element. The initial measurement model for the Learning Community supportive university learning environment dimension as illustrated below in Figure 5.20, seven out of the eight fits were within the acceptable fit range. The RMSEA had only moderate fit. This suggested that the data did adequately fit the model, however the RMSEA was only a moderate fit.

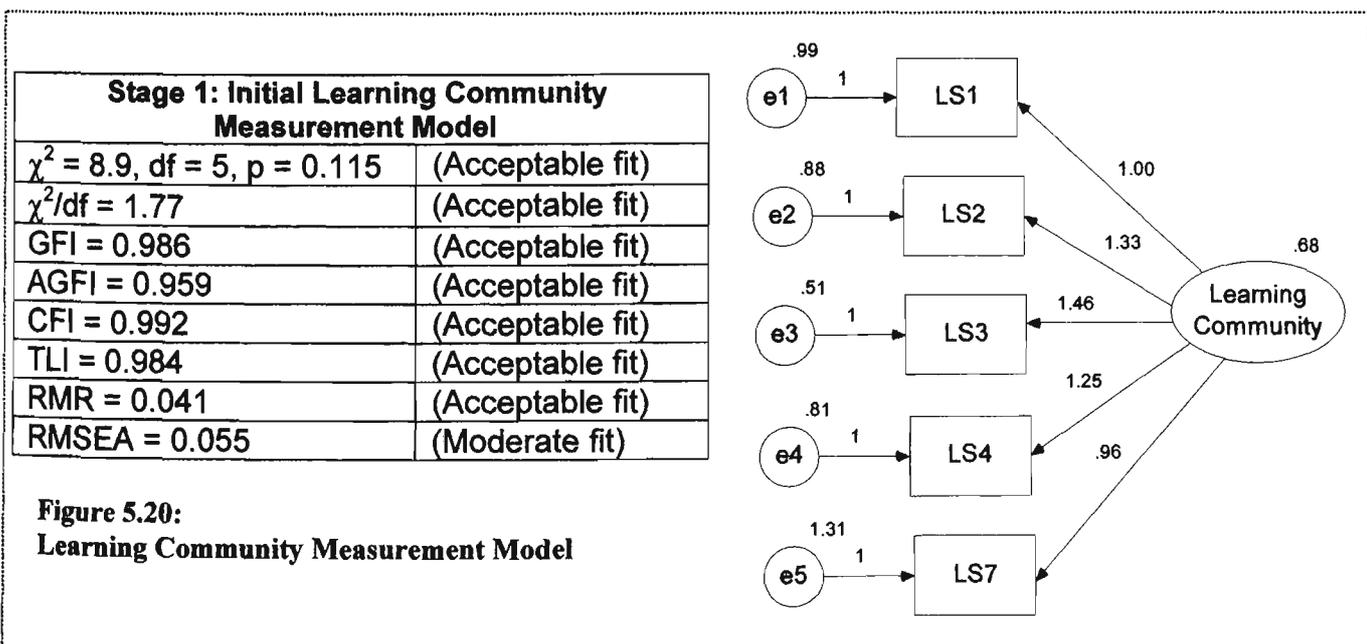
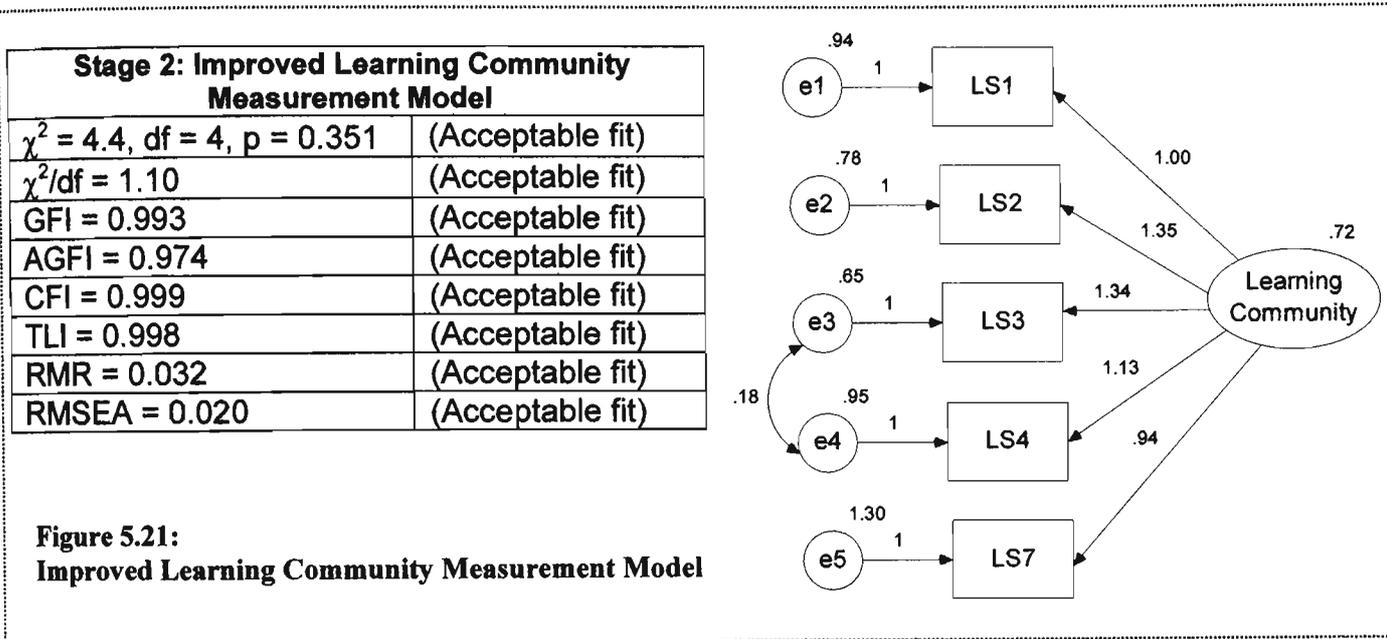


Figure 5.20: Learning Community Measurement Model

Figure 5.21 below shows the Learning Community supportive university learning environment dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support. This change involved co-varying one pair of measurement error variances. The result of making this change was that the RMSEA measure of fit improved and thus showed that the empirical data more adequately fitted the improved measurement model.



Two methods were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model as outlined in the methodology. The Measurement Model Fit (Hair et al. 1998), was the first method used. The second was the Maximised Reliability method (Politis 2001). Table 5.10 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.11 presents the Maximised Reliability as discussed by Politis (2001). Appendix A presents the Measurement Fit Model calculations and Appendix B presents the Maximised Reliability calculations.

**Table 5.10: Learning Community Measurement Model Fit**

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Learning Community	4.546	1.078	0.839	0.836	0.509	0.988	0.187

**Table 5.11: Learning Community Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Learning Community	4.474	1.120	0.855	1.255	1.036	0.182

The learning community construct has met the recommended levels of reliability and variance extracted by being greater than 0.70 and 0.50 respectively as discussed by Hair et al. (1998). As expected the maximised reliability model is stronger than the measurement model fit, as it is the most stringent method (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.22 shows the results of aggregating the items of the Learning Community scale.

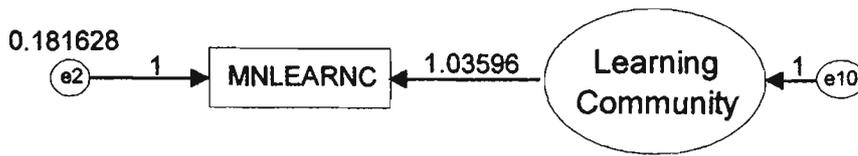


Figure 5.22: Learning Community Scale

### 5.3.3: Good Teaching

A congeneric factor analysis was conducted on Ramsden’s (1991) Good Teaching course experience element. The initial measurement model for the Good Teaching supportive university learning environment dimension as illustrated below in Figure 5.23, two out of the eight fits were not within the acceptable fit range. The RMR and the RMSEA only had a moderate fit. This suggested that the data did not adequately fit the model.

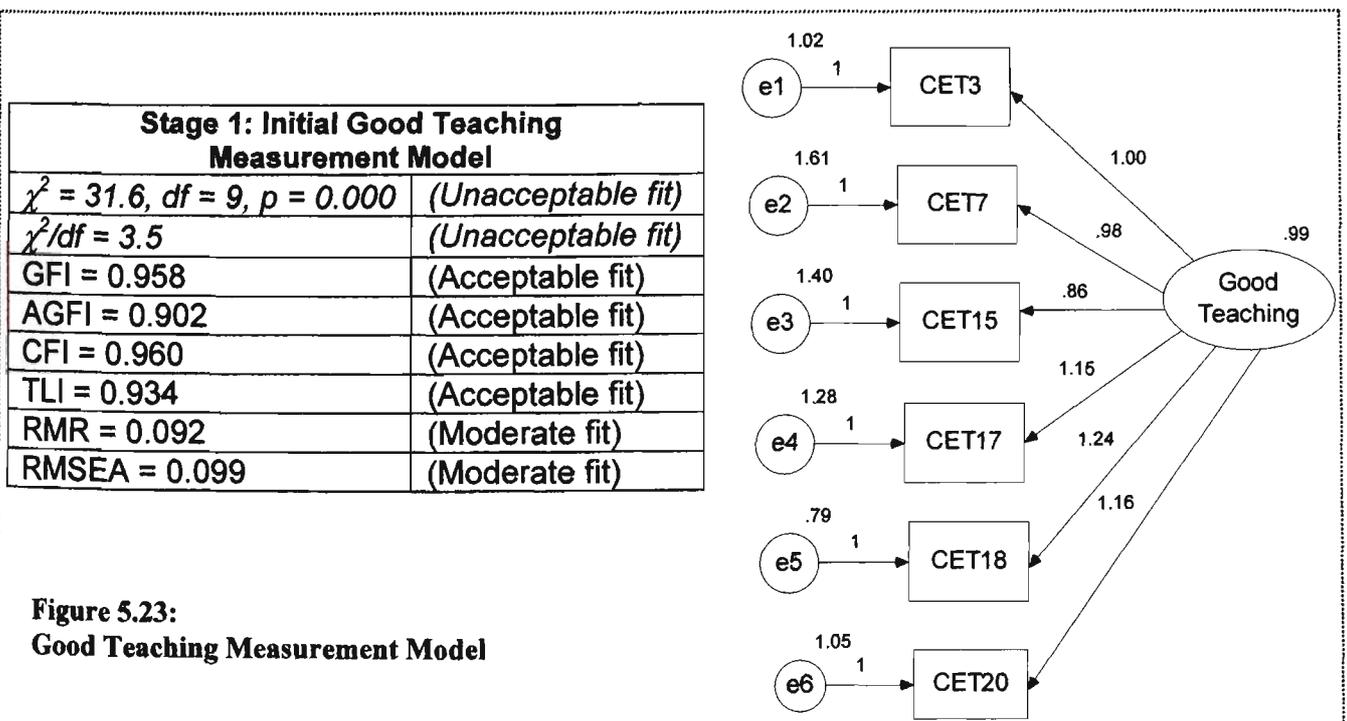


Figure 5.23: Good Teaching Measurement Model

Figure 5.24 below shows the Good Teaching supportive university learning environment dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support had been carried out. These changes involved co-varying seven pairs of measurement error variances. The results of making these changes were that all four measures of fit indices improved. This showed that the empirical data fitted the improved measurement model.

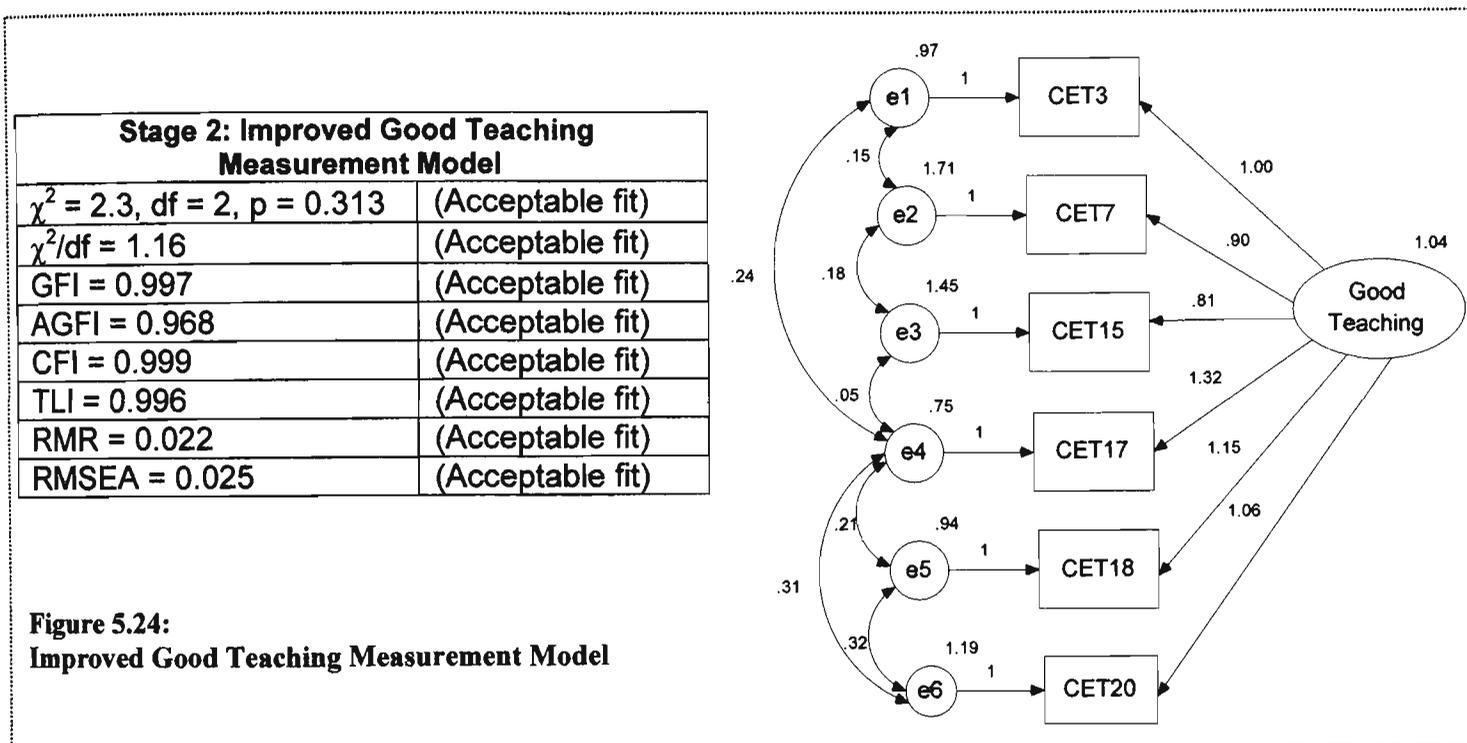


Figure 5.24: Improved Good Teaching Measurement Model

As outlined in the methodology, two methods Hair et al.'s (1998) Measurement Model Fit and the Maximised Reliability method were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model. Table 5.12 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.13 presents the Maximised Reliability as discussed by Politis (2001). Please refer to Appendix A for the Measurement Fit Model calculations and Appendix B for the Maximised Reliability calculations.

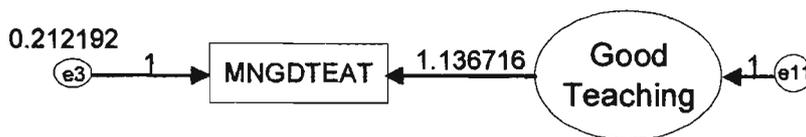
Table 5.12: Good Teaching Measurement Model Fit

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Good Teaching	4.334	1.115	0.848	0.852	0.495	1.064	0.203

**Table 5.13: Good Teaching Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Good Teaching	4.417	1.227	0.859	1.504	1.137	0.212

The good teaching construct had good levels of reliability (greater than 0.70) and of variance extracted (on and above 0.50). As anticipated the maximised reliability model is stronger than the measurement model fit, due to its method of extraction (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.25 shows the results of aggregating the items of the Good Teaching scale.



**Figure 5.25: Good Teaching Scale**

### 5.3.4: Helping

A congeneric factor analysis was conducted on Podsakoff and Mackenzie’s (1994) Helping dimension of their organisational citizenship behaviour framework. The initial measurement model for the Helping supportive university learning environment dimension as illustrated below in Figure 5.26, seven out of the eight fits were not within the acceptable fit range. This suggested that the data did not adequately fit the model. Figure 5.27 below shows the Helping supportive university learning environment dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support had been carried out. These changes involved co-varying ten pairs of measurement error variances. The results of making these changes were that all seven measures of fit indices improved. This showed that the empirical data fitted the improved measurement model.

Stage 1: Initial Helping Measurement Model	
$\chi^2 = 101.0, df = 14, p = 0.000$	(Unacceptable fit)
$\chi^2/df = 7.21$	(Unacceptable fit)
GFI = 0.893	(Unacceptable fit)
AGFI = 0.787	(Unacceptable fit)
CFI = 0.915	(Acceptable fit)
TLI = 0.873	(Unacceptable fit)
RMR = 0.103	(Unacceptable fit)
RMSEA = 0.156	(Unacceptable fit)

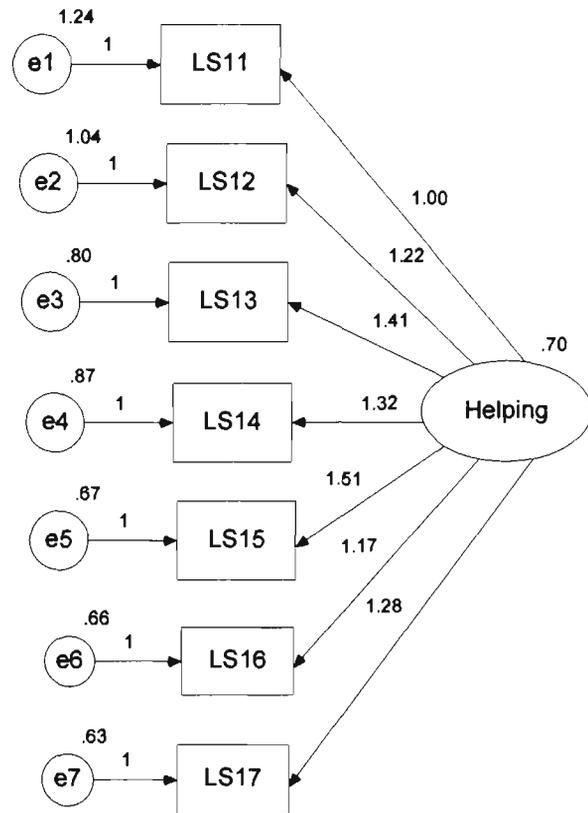


Figure 5.26:  
Helping Measurement Model

Stage 2: Improved Helping Measurement Model	
$\chi^2 = 4.3, df = 4, p = 0.367$	(Acceptable fit)
$\chi^2/df = 1.07$	(Acceptable fit)
GFI = 0.995	(Acceptable fit)
AGFI = 0.965	(Acceptable fit)
CFI = 1	(Acceptable fit)
TLI = 0.998	(Acceptable fit)
RMR = 0.025	(Acceptable fit)
RMSEA = 0.017	(Acceptable fit)

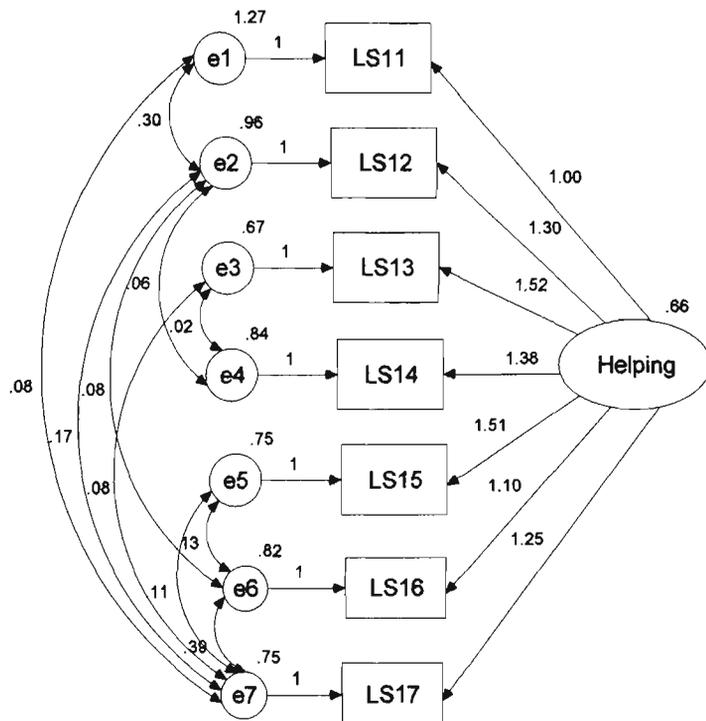


Figure 5.27:  
Improved Helping Measurement Model

The Measurement Model Fit (Hair et al. 1998) method which uses the construct's Cronbach's alpha and the standard deviation of the sample and the Maximised

Reliability, using the reliability of the composite (r.c) methodologies were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model. Table 5.14 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.15 presents the Maximised Reliability as discussed by Politis (2001). Appendix A and Appendix B present the calculations of the Measurement Fit Model and the Maximised Reliability methods respectively.

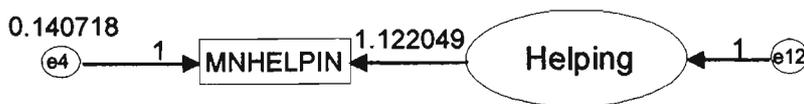
**Table 5.14: Helping Measurement Model Fit**

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Helping	4.286	1.122	0.902	0.897	0.558	1.065	0.123

**Table 5.15: Helping Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Helping	4.249	1.183	0.899	1.400	1.122	0.141

The reliability of the helping construct has met the recommended levels (above 0.70). It has also met the requirement for the variance extracted as stipulated by Hair et al. (1998) of 0.50. As expected the maximised reliability model is stronger than the measurement model fit (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.28 shows the results of aggregating the items of the Helping scale.



**Figure 5.28: Helping Scale**

### 5.3.5: Quality

A congeneric factor analysis was conducted on Netemeyer et al.'s (2004) Quality dimension of their brand equity framework. The initial measurement model for the Quality student-based brand equity dimension as illustrated below in Figure 5.29,

three out of the eight fits were not within the acceptable fit range. This suggested that the data did not adequately fit the model.

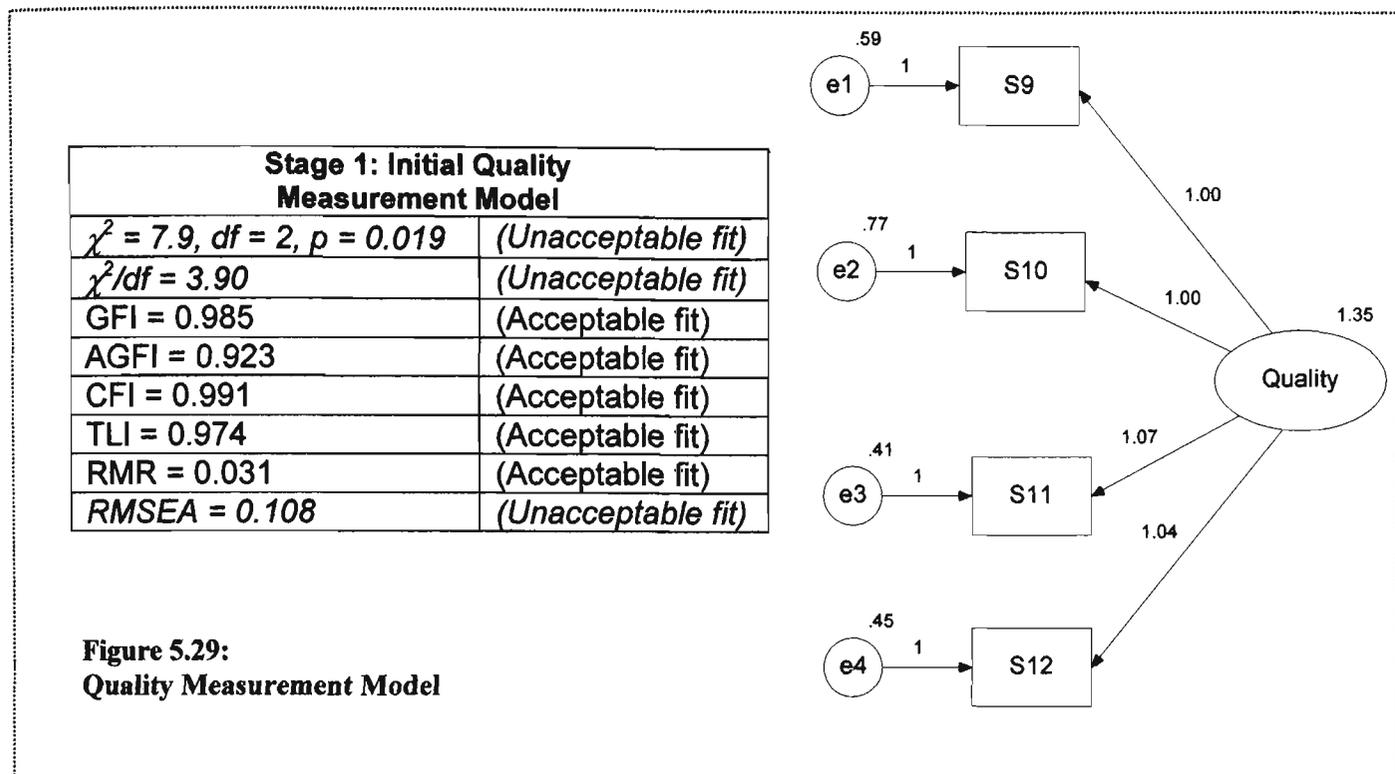
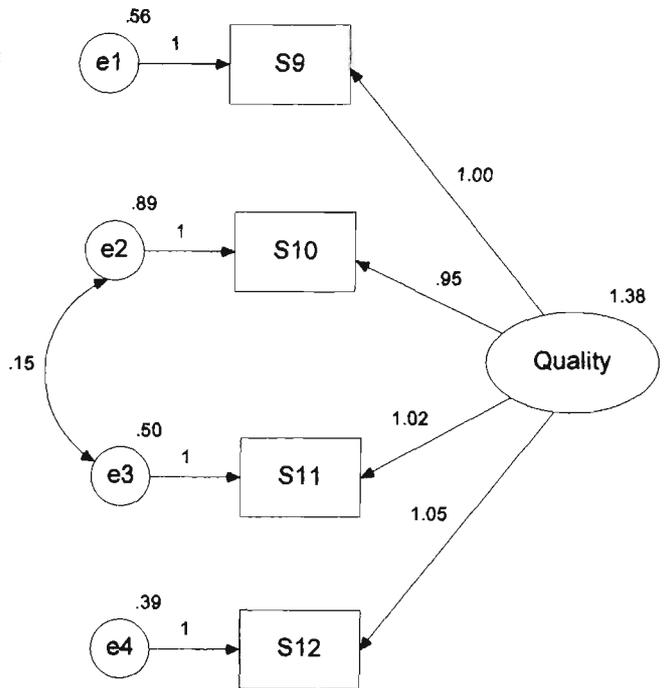


Figure 5.30 below shows the Quality student-based brand equity dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support had been carried out. These changes involved co-varying one pair of measurement error variance. The results of making this change were that all three measures of fit indices improved. This showed that the empirical data fitted the improved measurement model.

Stage 2: Improved Quality Measurement Model	
$\chi^2 = 1.5, df = 1, p = 0.225$	(Acceptable fit)
$\chi^2/df = 1.47$	(Acceptable fit)
GFI = 0.997	(Acceptable fit)
AGFI = 0.971	(Acceptable fit)
CFI = 0.999	(Acceptable fit)
TLI = 0.996	(Acceptable fit)
RMR = 0.013	(Acceptable fit)
RMSEA = 0.043	(Acceptable fit)



**Figure 5.30:**  
Improved Quality Measurement Model

As outlined in the methodology, two methods: Hair et al.'s (1998) Measurement Model Fit and the Maximised Reliability model were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model. Table 5.16 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.17 presents the Maximised Reliability as discussed by Politis (2001). Please refer to Appendix A for the Measurement Fit Model calculations and Appendix B for the Maximised Reliability calculations.

**Table 5.16: Quality Measurement Model Fit**

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Quality	3.926	1.254	0.911	0.907	0.709	1.196	0.141

**Table 5.17 Quality Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Quality	3.938	1.260	0.914	1.587	1.204	0.136

As expected the maximised reliability model is the stronger of the two (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The reliability and variance extracted of the quality construct is above the recommended levels of 0.70

and 0.50 respectively, as stipulated by Hair et al. (1998). The composite measurement model presented below in Figure 5.31 shows the results of aggregating the items of the Quality scale.

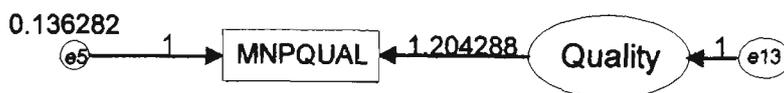


Figure 5.31: Quality Scale

### 5.3.6: Value

A congeneric factor analysis was conducted on Netemeyer et al.'s (2004) Value for cost dimension of their brand equity framework. The initial measurement model for the Value student-based brand equity dimension as illustrated below in Figure 5.32, seven out of the eight fits were within the acceptable fit range, where the RMSEA only had a moderate fit. This suggested that the data fit could be improved.

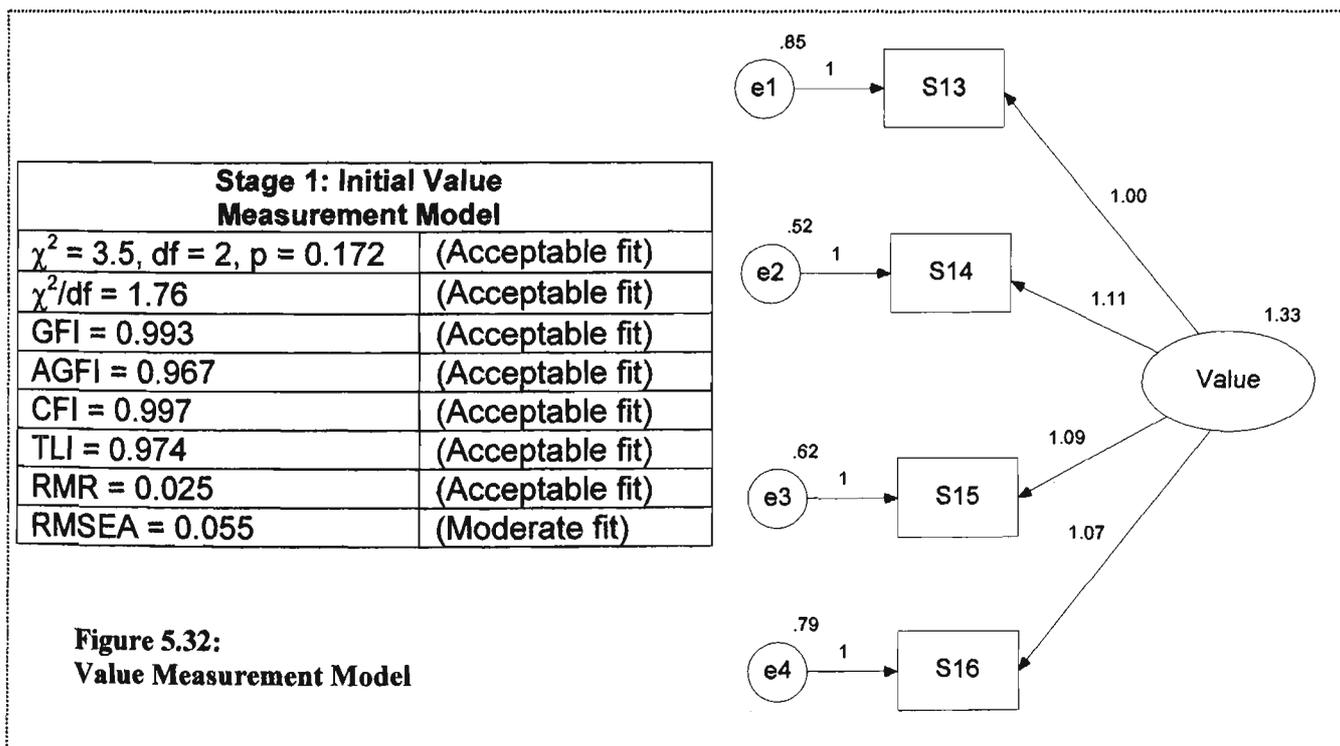
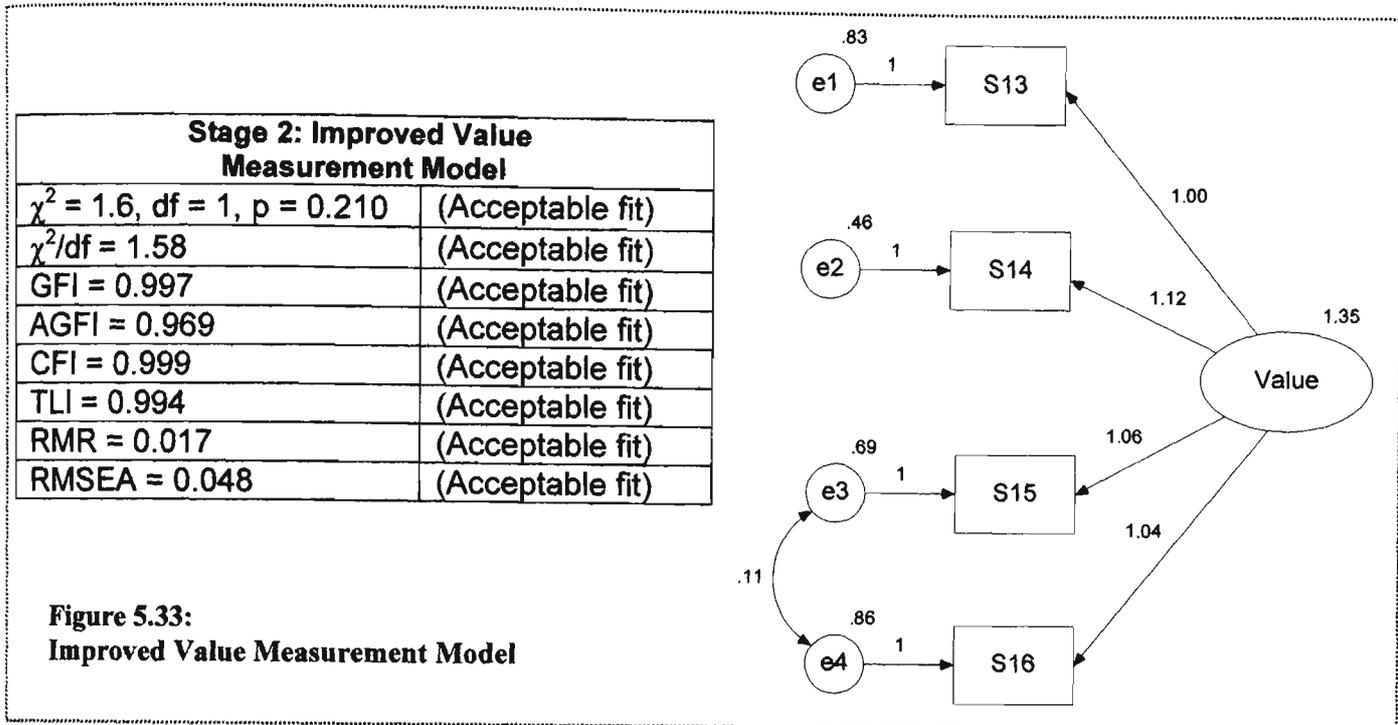


Figure 5.32: Value Measurement Model

Figure 5.33 below shows the Value student-based brand equity dimension after improvements suggested by the structural equation modelling analysis in AMOS, which had adequate theoretical support had been carried out. These changes involved

co-varying one pair of measurement error variance. The results of making this change were that the RMSEA improved. This showed that the empirical data fitted the improved measurement model.



As outlined in the methodology, two methods were used to calculate the  $\lambda$  and  $\theta$  values for the measurement model: the Measurement Model Fit method, and the Maximised Reliability method. Table 5.18 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.19 presents the Maximised Reliability as discussed by Politis (2001). Please refer to Appendix A and Appendix B respectively for the Measurement Fit Model and Maximised Reliability calculations.

**Table 5.18: Value Measurement Model Fit**

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Value	4.292	1.305	0.897	0.895	0.680	1.236	0.175

**Table 5.19: Value Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Value	4.293	1.314	0.902	0.902	0.856	0.129

The value construct has met the recommended reliability and variance extracted benchmarks of 0.70 and 0.50 respectively. As expected the maximised reliability model is stronger than the measurement model fit (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.34 shows the results of aggregating the items of the Value scale.

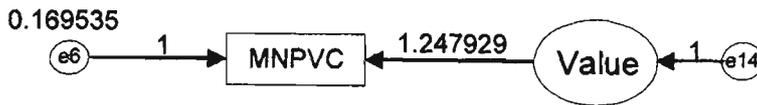


Figure 5.34: Value Scale

### 5.3.7: Loyalty

A congeneric factor analysis was conducted on Yoo and Donthu's (2001) Overall Brand Equity (OBE) dimension which was re-labelled as loyalty within this study as identified and discussed in Chapter 4. The initial measurement model for the Loyalty student-based brand equity dimension as illustrated below in Figure 5.35, all eight fits were within the acceptable fit range, with the  $\chi^2/df$  and TLI being overfitted. This suggested that the data did adequately fit the model.

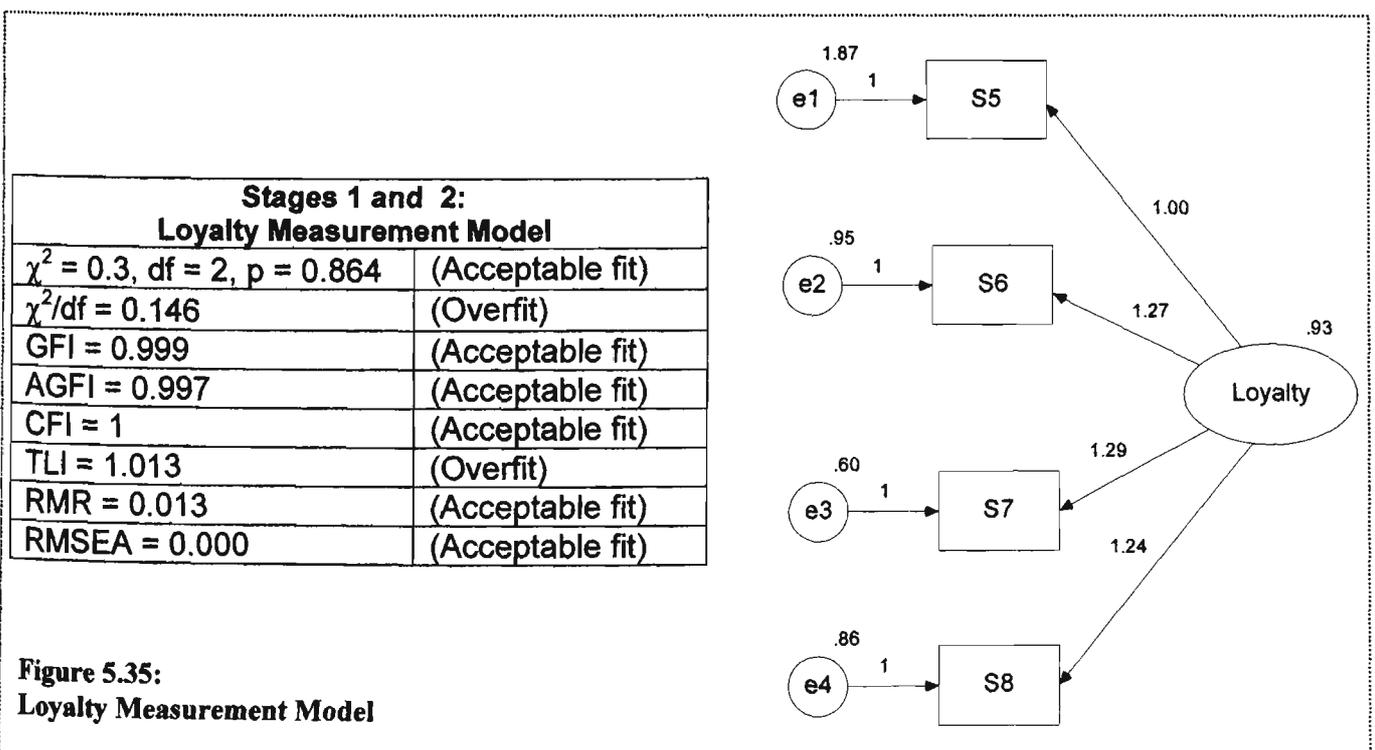


Figure 5.35:  
Loyalty Measurement Model

The Measurement Model fit and the Maximised Reliability measures as outlined in the methodology section were also conducted. Table 5.20 below presents the  $\lambda$  and  $\theta$  values calculated via Hair et al.'s (1998) Measurement Model Fit method and Table 5.21 below presents the Maximised Reliability as discussed by Politis (2001). Please refer to Appendix A for the Measurement Fit Model calculations and Appendix B for the Maximised Reliability calculations.

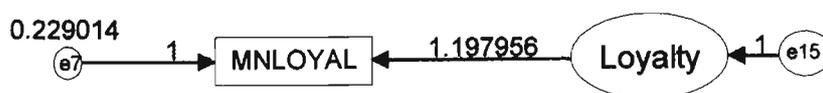
**Table 5.20: Loyalty Measurement Model Fit**

Construct	Base Mean	Base SD	Cronbach's Alpha ( $\alpha$ )	Composite Reliability	Average Variance Extracted	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Loyalty	4.355	1.267	0.830	0.839	0.571	1.155	0.273

**Table 5.21: Loyalty Maximised Reliability**

Construct	Composite Mean	Composite SD	Composite Reliability	Composite Variance	Regression Coefficient ( $\lambda$ )	Measurement Error Variance ( $\theta$ )
Loyalty	4.284	1.290	0.862	1.664	1.198	0.229

Similar to the other constructs, the loyalty construct was also acceptable at the reliability and variance extracted levels. As expected the maximised reliability model is the stronger model (see: Hair et al. 1998; Politis 2001, 2002, 2003b, 2003a, 2003c, 2004, 2005). The composite measurement model presented below in Figure 5.36 shows the results of aggregating the items of the Loyalty scale.



**Figure 5.36: Loyalty Scale**

## 5.4 The Calibration Model

This section has two smaller sub-sections. The first discusses the correlation analysis between the variables in the measurement model: reputation importance, uncertainty avoidance, learning community, good teaching, helping, quality, value, and loyalty. The second discusses the Calibration Structural Equation Model of Student-Based Brand Equity. As shown in Figure 4.4 in Chapter 4, the proposed model illustrated the relationships between four broad categories: students' importance ratings of the

university's reputation, students' culturally-anchored value, the supportive university learning environment and student-based brand equity. Students' culturally-anchored value (uncertainty avoidance) and importance ratings of the university's reputation (reputation) were purely exogenous variables in the model. Students' perceptions of their supportive university learning environment (learning community, good teaching and helping) were both exogenous and endogenous variables in the model. They were exogenous when looking at the relationship between the supportive university learning environment and student-based brand equity and they were endogenous in the model when considering the effect of students' perceptions about the university's reputation importance (reputation) and students' culturally-anchored value (uncertainty avoidance).

#### **5.4.1 Correlation Analysis**

Table 5.22 below presents information that will be used in the analysis. The parameters of the path model were calculated using the measurement model fit method and the maximised reliability method outlined in the methodology. All of the variables show good discriminate validity as no correlations are higher than the Cronbach's alphas of the scales. The Cronbach's alphas for the variables are presented on the diagonal as well as their regression coefficients ( $\lambda$ ) and the error variance ( $\theta$ ). Table 5.2 highlights that all correlations between the pre-course related factors: university reputation importance; and the uncertainty avoidance culturally-anchored values; the course and course related factors: the supportive university learning dimensions of learning community, good teaching and helping; and the student-based brand equity consequences: the student-based brand equity dimensions quality, value and loyalty were all significant at the  $p < 0.01$  level.

The pre-course related factors, that is reputation and uncertainty avoidance dimensions had weak to moderate associations with the student-based brand equity dimensions of quality ( $R = 0.329$  and  $0.202$  respectively); value ( $R = 0.215$  and  $0.172$  respectively); and loyalty ( $R = 0.334$  and  $0.267$  respectively). The course and course related factors, the supportive university learning environment dimensions: learning community, good teaching and helping had moderate to strong associations with the

student-based brand equity dimensions: quality ( $R = 0.563, 0.524$  and  $0.494$  respectively); value ( $R = 0.542, 0.496$  and  $0.464$  respectively); and loyalty ( $R = 0.511, 0.507$  and  $0.519$  respectively). The student-based brand equity dimensions: quality, value, and loyalty also had strong associations with one another: quality and value  $R = 0.683$ ; quality and loyalty  $R = 0.759$ ; and value and loyalty  $R = 0.649$ .

The uncertainty avoidance culturally-anchored value orientation had moderate zero order correlations with the supportive university learning environment dimensions: learning community, good teaching and helping,  $R = 0.343, 0.246$  and  $0.339$  respectively. Another note worthy zero order finding is the strong associations between the learning community dimension and the other two supportive university learning environment dimensions: good teaching ( $R = 0.543$ ) and helping ( $R = 0.553$ ).

Table 5.22: Correlation Analyses

Variable	Mean	SD ( $\sigma$ )	$\lambda^a$	$\theta^a$	$\lambda^b$	$\theta^b$	1	2	3	4	5	6	7	8
1. Reputation	5.09	1.56	-	-	-	-	-							
2. Uncertainty Avoidance	5.33	0.96	0.891	0.136	0.897	0.115	0.189	0.854						
3. Learning Community	4.55	1.08	0.988	0.187	1.036	0.182	0.262	0.343	0.839					
4. Good Teaching	4.33	1.16	1.064	0.203	1.137	0.212	0.184	0.246	0.543	0.848				
5. Helping	4.29	1.12	1.065	0.123	1.122	0.141	0.171	0.339	0.553	0.478	0.902			
6. Quality	3.93	1.25	1.196	0.141	1.204	0.136	0.329	0.202	0.563	0.524	0.494	0.911		
7. Value	4.29	1.30	1.236	0.175	1.248	0.170	0.215	0.172	0.542	0.496	0.464	0.683	0.897	
8. Loyalty	4.36	1.27	1.155	0.273	1.198	0.229	0.334	0.267	0.511	0.507	0.519	0.759	0.649	0.830

Notes: All correlations are significant,  $p < 0.01$ ;  $N = 255$ ;  $\lambda^a$  regression coefficient measurement model fit method;  $\theta^a$  error variance measurement model fit method;  $\lambda^b$  regression coefficient maximised reliability method;  $\theta^b$  error variance maximised reliability method; Coefficient alphas ( $\alpha$ 's) are shown in italics and are located on the diagonal.

#### 5.4.2 Student-Based Brand Equity Path Diagram

This section presents the Structural Equation Modelling conducted. From examining the literature on students' importance ratings of their university's reputation (reputation), their uncertainty avoidance culturally-anchored value, the supportive university learning environment: learning community, good teaching and helping dimensions, and student-based brand equity: quality, value and loyalty dimensions was proposed in Figure 4.4 in Chapter 4. This proposed model was operationalised into the hypothesised model (Figure 4.5) which also appeared in Chapter 4.

Figure 5.37 below presents the hypothesised composite measurement model which shows the results of aggregating the items of each of the scales: uncertainty avoidance, learning community, good teaching, helping, quality, value and loyalty which were outlined earlier in this chapter and Table 5.23 restates the hypotheses presented earlier in Chapter 4. These hypotheses outlined in Table 5.23, were then tested using the hypothesised composite measurement model (Figure 5.37) through the SPSS and AMOS statistical packages. Figure 5.38 also below presents the hypothesised composite measurement model with its regression weights ( $\gamma$ ).

**Table 5.23: Hypotheses Restated**

H <sub>1a</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: loyalty dimension, when students' perceptions of quality and value are controlled for.
H <sub>1b</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: quality dimension, when students' perceptions of a supportive university learning environment: helping, learning community and good teaching are controlled for.
H <sub>1c</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: value dimension, when students' perceptions of quality are controlled for.
H <sub>2a</sub>	Postgraduate business students' perceptions of the supportive university learning environment: helping dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, learning community and good teaching are controlled for.
H <sub>2b</sub>	Postgraduate business students' perceptions of the supportive university learning environment: learning community dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and good teaching are controlled for.
H <sub>2c</sub>	Postgraduate business students' perceptions of the supportive university learning environment: good teaching dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and learning community are controlled for.
H <sub>3a</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and value are controlled for.
H <sub>3b</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: value dimension, when students' perceptions of reputation importance are controlled for.
H <sub>4</sub>	Postgraduate business students' perceptions of the student-based brand equity: value dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and quality are controlled for.
H <sub>5a</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive administrative services: the helping dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.
H <sub>5b</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive teaching: the good teaching dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.
H <sub>6a</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: helping dimension, when students' perceptions of the learning community are controlled for.
H <sub>6b</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: learning community dimension.
H <sub>6c</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: good teaching dimension, when students' perceptions of the learning community are controlled for.

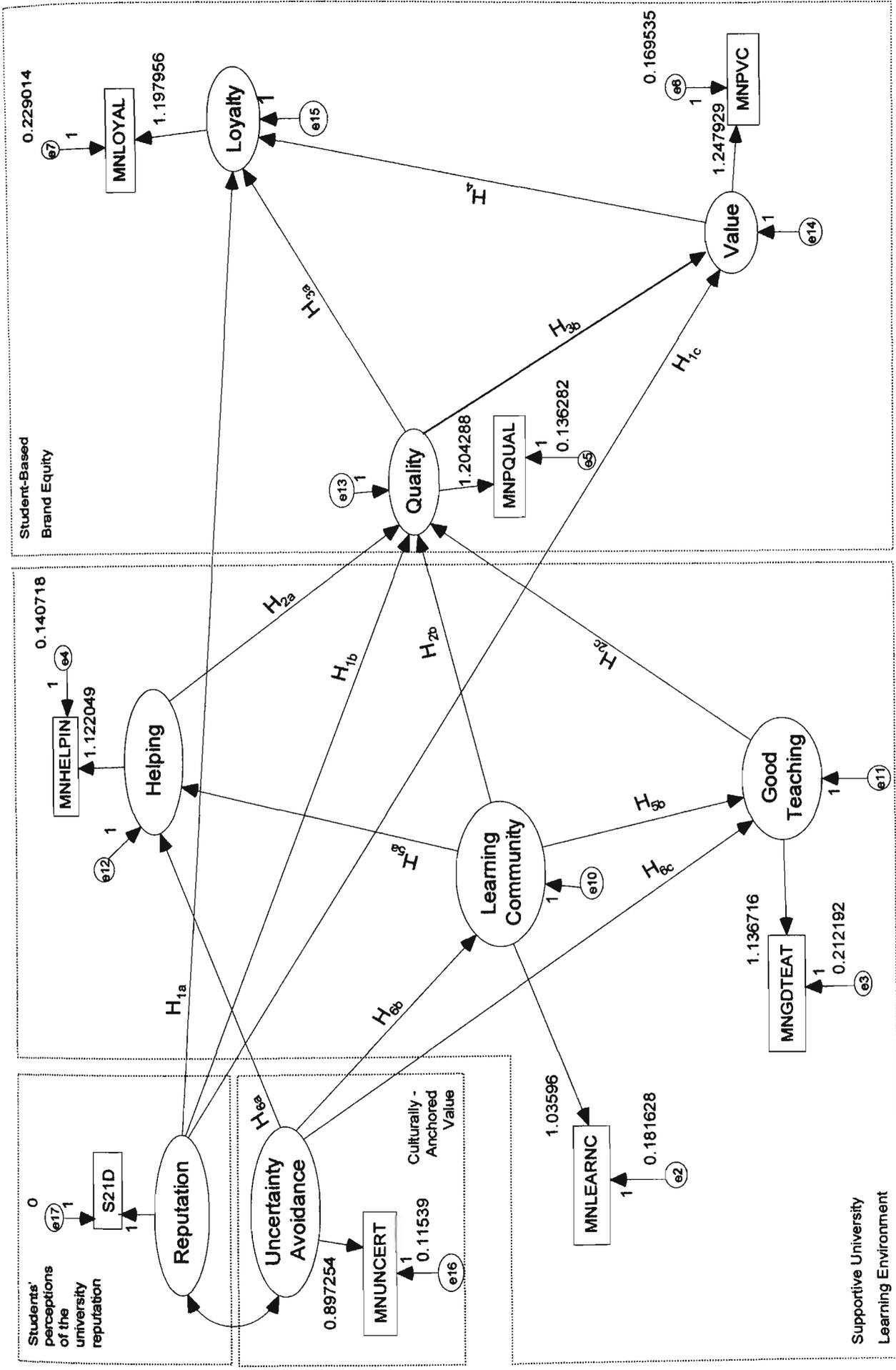


Figure 5.37: Hypothesised Composite Measurement Model

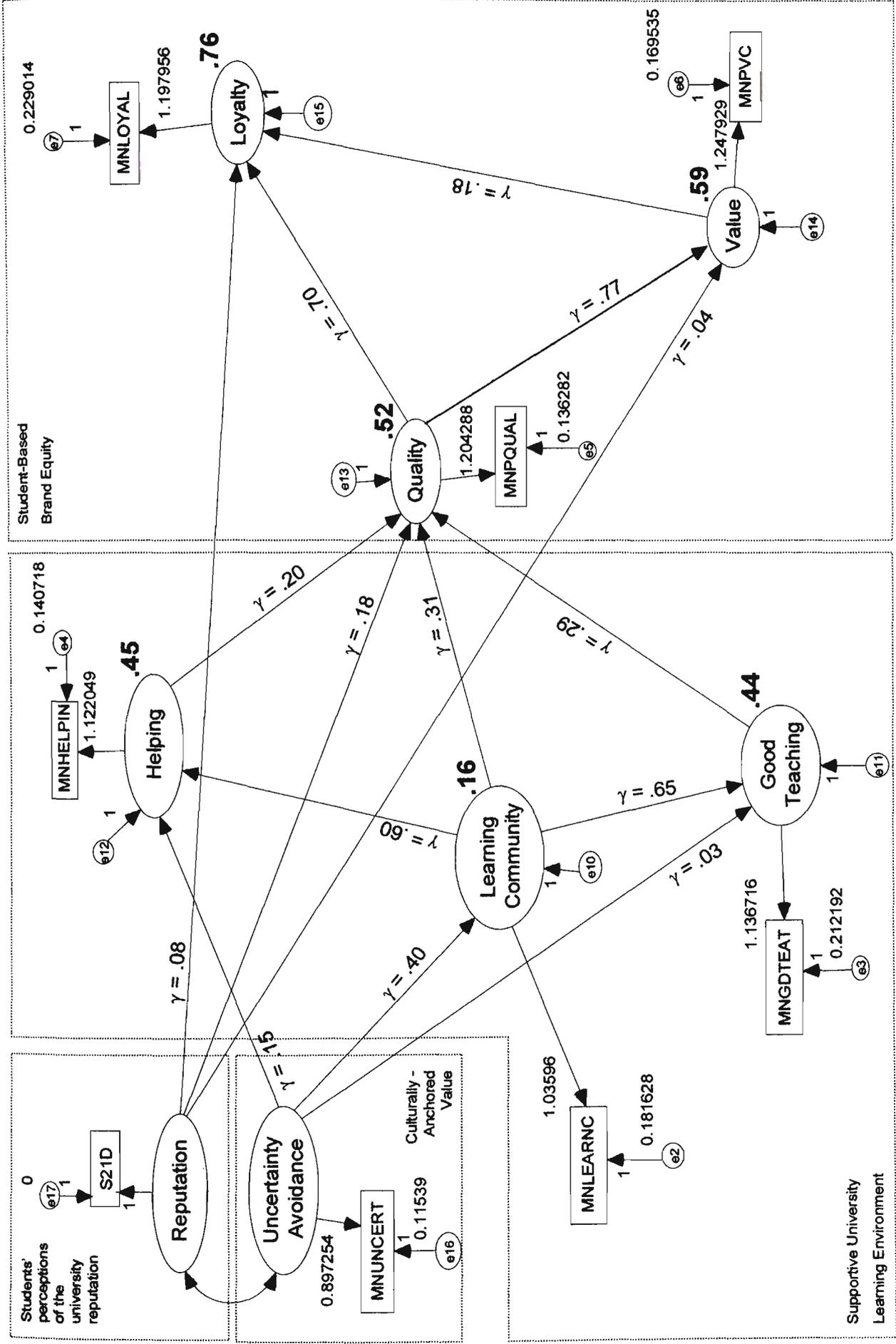


Figure 5.38: Hypothesised Composite Measurement Model with Regression Weights

Figure 5.39 presents the fit indexes for the hypothesised composite measurement model.

**Figure 5.39: Hypothesised Composite Measurement Model Fits**

<b>Hypothesised Composite Measurement Model</b>	
$\chi^2 = 47.6, df = 13, p = 0.000$	<i>(Unacceptable fit)</i>
$\chi^2/df = 3.659$	<i>(Unacceptable fit)</i>
GFI = 0.956	<i>(Acceptable fit)</i>
AGFI = 0.877	<i>(Unacceptable fit)</i>
CFI = 0.958	<i>(Acceptable fit)</i>
TLI = 0.910	<i>(Acceptable fit)</i>
RMR = 0.109	<i>(Unacceptable fit)</i>
RMSEA = 0.102	<i>(Unacceptable fit)</i>

The hypothesised composite measurement model fit indexes presented above, highlights that five out of the eight fits were not within the acceptable fit range. This suggested that the data did not adequately fit the model and it was anticipated that some modification indexes would be suggested as part of this structural equation modelling investigation. Byrne (1998) once again was used as a guide, with respect to accepting the modifications on the basis of:

- 1) Being consistent with substantive theory;
- 2) Being consistent with pooled data from various indices of fit; and
- 3) Being parsimonious.

Byrne's (1998) hold-out procedure was used to avoid capitalizing on chance, when viewing the modification indexes.

The first modification index suggested was to add the path from the students' importance ratings of the university's reputation: reputation to the supportive university learning environment: learning community dimension. This suggested pathway between reputation and learning community was only accepted because it was consistent with Byrne's (1998) guide for accepting modifications. That is the modification suggested was consistent with substantive theory, consistent with pooled data and was parsimonious. The pathway learning community predicted by reputation is consistent with: Chiu's (1999); Joseph and Joseph's (2000); Kazoleas, Kim and Moffit's (2001); Soutar and Turner's (2002); Arpan, Raney and Zivnuska's (2003); and Cubillo, Sanchez and Cervino's (2006) findings as previously presented in

Chapter 2. Chiu (1999) identified the link between reputation and the university's environment. This is consistent with Joseph and Joseph's (2000) findings, that there is a relationship between reputation and the university's learning environment. Similarly Kazoleas, Kim and Moffit (2001) and Arpan, Raney and Zivnuska (2003) identified an association between reputation and academic attributes. Furthermore Soutar and Turner (2002) found that there is a relationship between reputation and a great campus atmosphere where Cubillo, Sanchez and Cervino's (2006) discussed the association between reputation and a university's environment. Therefore the proposed pathway (M<sub>1</sub>) learning community predicted by reputation was accepted. Figure 5.40 below presents the fit indexes for Model 2 [Path Added: Learning Community predicted by Reputation].

**Figure 5.40: Model 2 Path Added Learning Community Predicted by Reputation**

<b>Model 2 Path Added: Learning Community Predicted By Reputation</b>	
$\chi^2 = 36.5, df = 12, p = 0.000$	(Unacceptable fit)
$\chi^2/df = 3.041$	(Unacceptable fit)
GFI = 0.965	(Acceptable fit)
AGFI = 0.895	(Unacceptable fit)
CFI = 0.970	(Acceptable fit)
TLI = 0.931	(Acceptable fit)
RMR = 0.056	(Moderate fit)
RMSEA = 0.090	(Moderate fit)

Model 2's fit indexes presented above, still shows that three out of the eight fits were still not within the acceptable fit range, and that the RMR and RMSEA values were now moderately fitting. This still suggested that the data did not adequately fit the model and it was anticipated that some further modification indexes would be suggested as part of this structural equation modelling investigation.

The second modification index suggested was to add the path between the supportive university learning environment dimension: learning community and the student-based brand equity value dimension. The suggested pathway between learning community and value was accepted during the structural equation modelling investigation because it was consistent with the literature domain. In particular with Parasuraman and Grewal's (2000), Petrick's (2004b; 2004a), Netemeyer et al.'s

(2004) and Andreassen and Lindestad's (1998) findings that value for cost and quality are deemed to be two highly related constructs. Within a university setting based on the distinction identified by Andreassen and Lindestad (1998), Parasuraman and Grewal (2000), Petrick (2004b; 2004a), and Netemeyer et al.(2004), perceived value for cost was identified within this thesis as the worth of the course in respect to price, time and effort outlaid for the knowledge gained. It is also apparent within the learning community literature that students' are searching for a learning community to enrich the process of gaining knowledge (Ferres, Connell & Travaglione 2004; Lee, J. & Miller 1999; Smith, B. L. 2001; Willits et al. 1996). Therefore this pathway (M<sub>2</sub>) was deemed acceptable on the basis of theoretical justification. Figure 5.41 below presents the fit indexes for Model 3 [Path Added: Value predicted by Learning Community].

**Figure 5.41: Model 3 Path Added Value Predicted By Learning Community**

<b>Model 3 Path Added: Value Predicted By Learning Community</b>	
$\chi^2 = 24.4, df = 11, p = 0.011$	(Unacceptable fit)
$\chi^2/df = 2.214$	(Unacceptable fit)
GFI = 0.976	(Acceptable fit)
AGFI = 0.920	(Acceptable fit)
CFI = 0.984	(Acceptable fit)
TLI = 0.959	(Acceptable fit)
RMR = 0.042	(Acceptable fit)
RMSEA = 0.069	(Moderate fit)

Despite the added path between learning community and value, not all of the eight fit indexes were within the acceptable range. Two out of the eight fits were still not within the acceptable fit range, and the RMSEA was still only a moderate fit. This still suggested that the data did not adequately fit the model and it was anticipated that some further modification indexes would be suggested as part of this structural equation modelling investigation.

The third modification index suggested was to add the path from the supportive university learning environment dimension: helping to the student-based brand equity loyalty dimension. The pathway loyalty predicted by helping that was suggested during the structural equation modelling investigation was accepted on the grounds of

consistency with the literature. Caldwell, Patterson and Uncles (2000) identified that there is an association between friendship and loyalty. In a university setting it is the administrative support component of the supportive university learning environment that is likely to be related to social friendship that was identified by Caldwell, Patterson and Uncles (2000) as presented earlier in Chapter 2. Eisenberger et al.'s (1986), Eisenberger, Fasolo and Davis-LaMastro's (1990), Orpen's (1994) and Rhoades and Eisenberger's (2002) notion of perceived organisational support and reciprocity which within a university context equates to the care and respect reflected by the university from its academic and administrative support staff encourages students to reciprocate through recommending the university within their social and family groups as previously discussed in Chapter 3. Aaker (1991) also suggests that loyalty is created by treating the customer favourably. In other words within a university setting this notion of treating the customer favourably includes treating students favourably by providing adequate academic and administrative support. Hence the pathway loyalty predicted by helping (M<sub>3</sub>) was supported within the literature, and accepted within the structural equation modelling investigation. Figure 5.42 below presents the fit indexes for Model 4 [Path Added: Loyalty predicted by Helping].

**Figure 5.42: Model 4 Path Added Loyalty Predicted By Helping Fits**

<b>Model 4 Path Added: Loyalty Predicted By Helping</b>	
$\chi^2 = 17.1, df = 10, p = 0.073$	(Unacceptable fit)
$\chi^2/df = 1.707$	(Acceptable fit)
GFI = 0.983	(Acceptable fit)
AGFI = 0.940	(Acceptable fit)
CFI = 0.991	(Acceptable fit)
TLI = 0.976	(Acceptable fit)
RMR = 0.035	(Acceptable fit)
RMSEA = 0.053	(Moderate fit)

Once again not all fit indexes were within acceptable range, even though another path between helping and loyalty was added. This time one out of the eight fits was still not within the acceptable fit range, and the RMSEA was still only a moderate fit. This still suggested that the data did not adequately fit the model and it was anticipated that some modification indexes would be suggested as part of this structural equation modelling investigation.

There were no other modification indexes being suggested that were consistent with substantive theory and therefore the strength of the regression weights between the dimensions within the model were examined. Figure 5.43 below presents Model 4 Path Added: Loyalty Predicted by Helping. From this examination of the regression weights there were three insignificant pathways. The most insignificant pathway was: Good Teaching predicted by Uncertainty Avoidance and so this path was deleted from the model. Figure 5.44 below presents the fit indexes for Model 5 [Path Deleted: Good Teaching predicted by Uncertainty Avoidance].

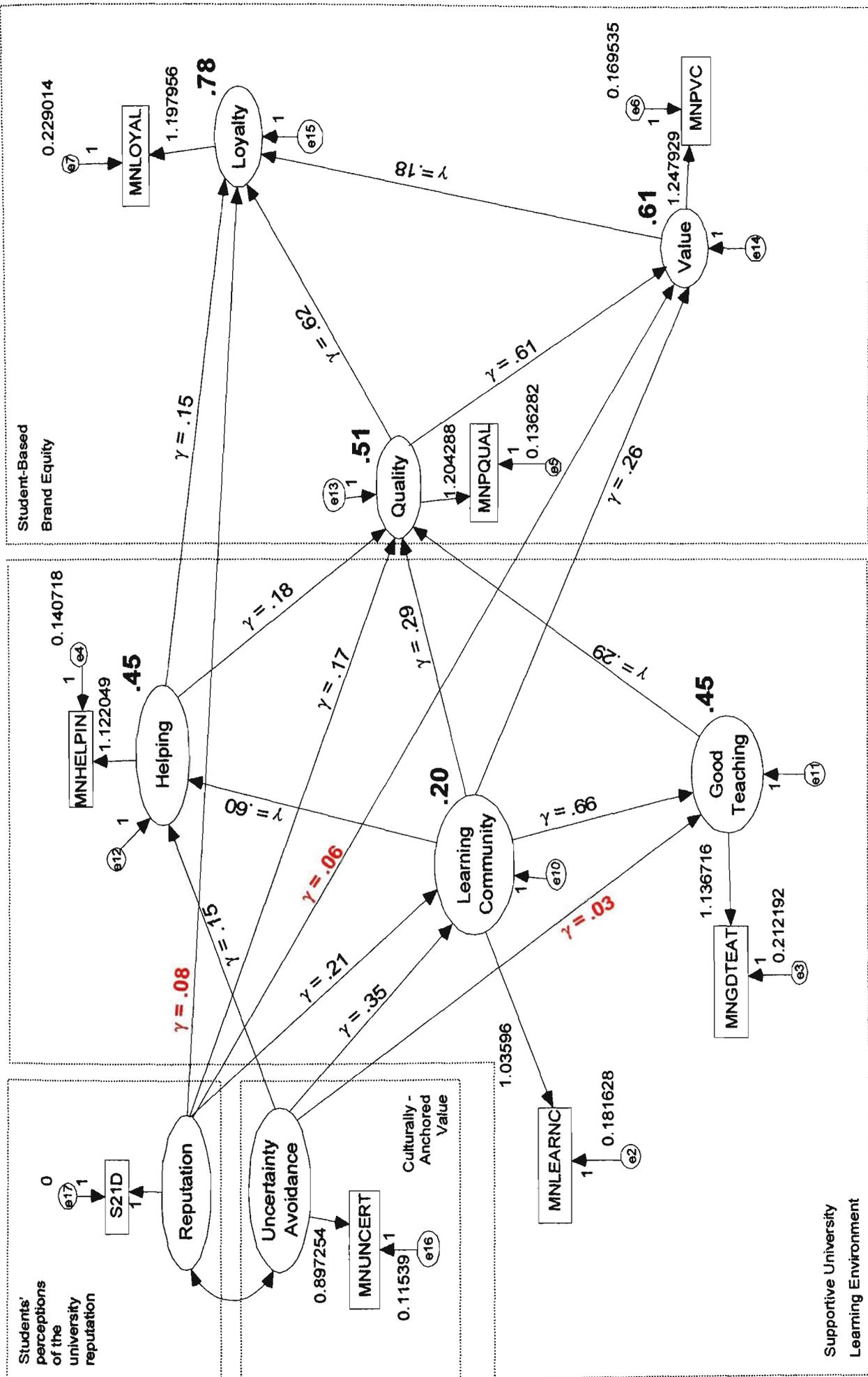


Figure 5.43: Model 4 Path Added Loyalty Predicted By Helping

**Figure 5.44: Model 5 Path Deleted Good Teaching Predicted By Uncertainty Avoidance Fits**

<b>Model 5 Path Deleted: Good Teaching Predicted By Uncertainty Avoidance</b>	
$\chi^2 = 17.2, df = 11, p = 0.101$	(Acceptable fit)
$\chi^2/df = 1.566$	(Acceptable fit)
GFI = 0.983	(Acceptable fit)
AGFI = 0.945	(Acceptable fit)
CFI = 0.992	(Acceptable fit)
TLI = 0.981	(Acceptable fit)
RMR = 0.035	(Acceptable fit)
RMSEA = 0.047	(Acceptable fit)

All of Model 5's fit indexes presented above were within the acceptable fit range. This suggested that the data did adequately fit the model. Model 5's regression weight strengths were then examined, see Figure 5.45 below. It was found that there were still two insignificant pathways, with the most insignificant pathway being: Value predicted by Reputation and so this path was deleted from the model. Figure 5.46 presents the fit indexes for Model 6 [Path Deleted: Value predicted by Reputation].

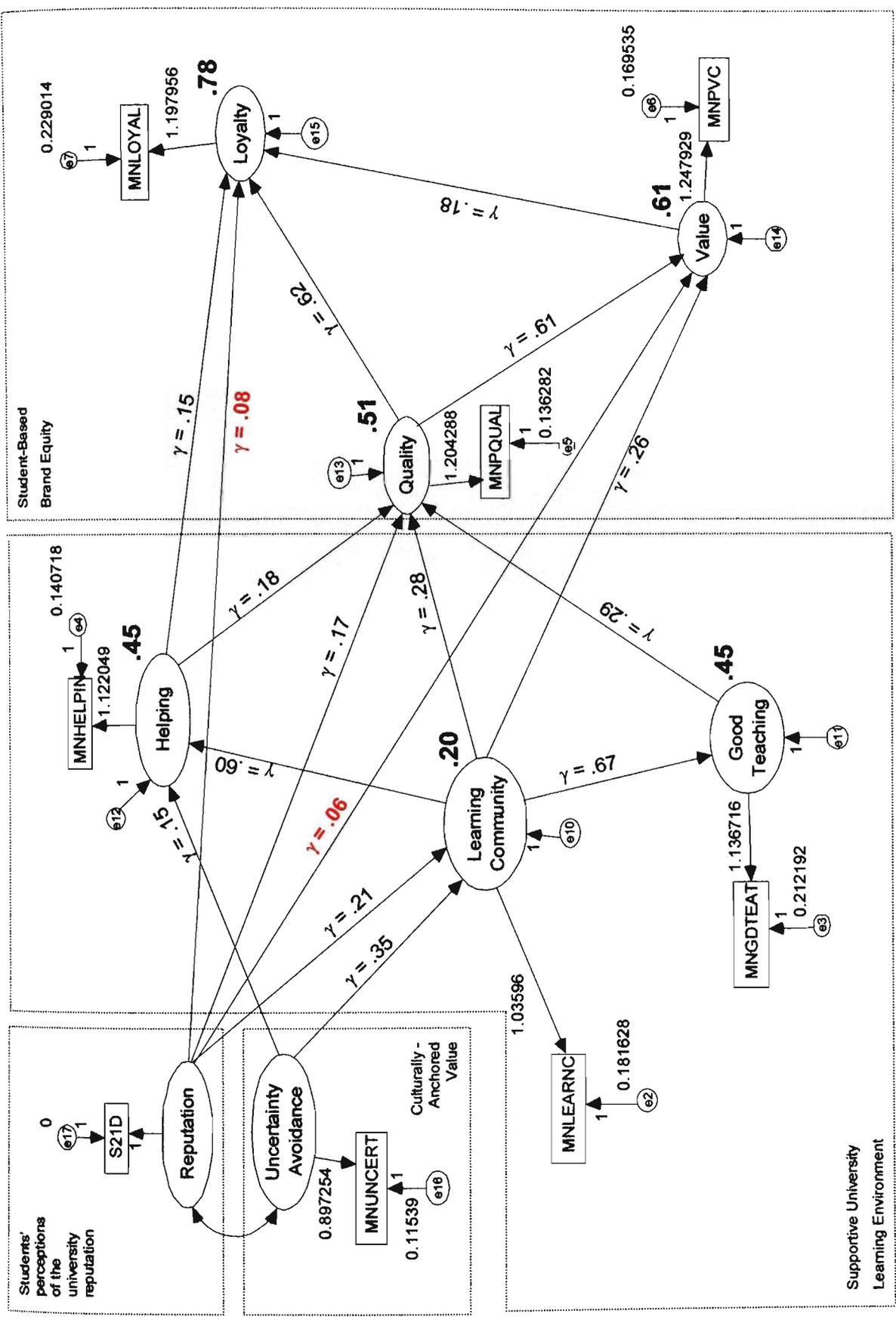


Figure 5.45: Model 5 Path Deleted Good Teaching Predicted by Uncertainty Avoidance

**Figure 5.46: Model 6 Path Deleted Value Predicted By Reputation Fits**

<b>Model 6 Path Deleted: Value Predicted By Reputation</b>	
$\chi^2 = 18.5, df = 12, p = 0.102$	(Acceptable fit)
$\chi^2/df = 1.540$	(Acceptable fit)
GFI = 0.982	(Acceptable fit)
AGFI = 0.945	(Acceptable fit)
CFI = 0.992	(Acceptable fit)
TLI = 0.982	(Acceptable fit)
RMR = 0.039	(Acceptable fit)
RMSEA = 0.046	(Acceptable fit)

Similar to Model 5, the fit indexes for Model 6 were within the acceptable fit range. The  $\chi^2$ , df and p values increased ever so slightly. The  $\chi^2/df$  improved slightly from 1.566 to 1.540, as did the GFI, the TLI and the RMSEA indexes by 0.001. The RMR increased slightly from 0.035 to 0.039 but still remained well within the acceptable fit range. The regression weight strengths were examined for Model 6 and are presented in Figure 5.47. One insignificant pathway still remained within the model: Loyalty predicted by Reputation. Figure 5.48 presents the fit indexes for Model 7 [Path Deleted: Loyalty predicted by Reputation].

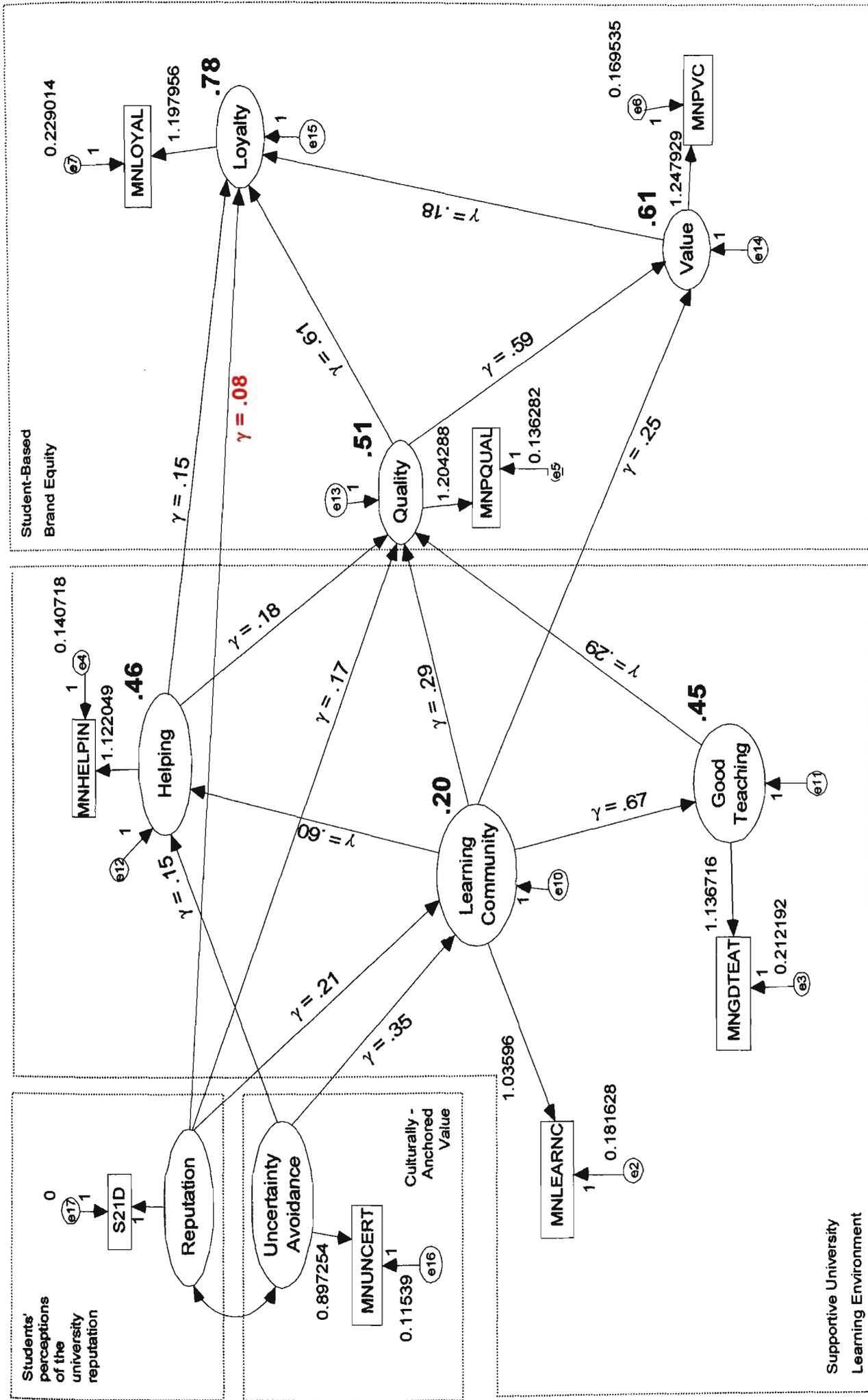


Figure 5.47: Model 6 Path Deleted Value Predicted by Reputation

**Figure 5.48: Model 7 Path Deleted Loyalty Predicted By Reputation**

<b>Model 7 Path Deleted: Loyalty Predicted By Reputation</b>	
$\chi^2 = 21.9, df = 13, p = 0.056$	(Acceptable fit)
$\chi^2/df = 1.688$	(Acceptable fit)
GFI = 0.979	(Acceptable fit)
AGFI = 0.941	(Acceptable fit)
CFI = 0.989	(Acceptable fit)
TLI = 0.977	(Acceptable fit)
RMR = 0.043	(Acceptable fit)
RMSEA = 0.052	(Acceptable fit)

Similar to Models 5 and 6, the fit indexes for Model 7 were also within the acceptable ranges. Model 7, however is the optimised model as there are no insignificant pathways within it. This optimised reliability model is presented diagrammatically in Figure 5.49 below.

Figure 5.49 outlines that the optimised reliability model presents good explanatory power for the variables under discussion. It was found that 77% of unique variation in the student-based brand equity: loyalty dimension was explained by the variables within this thesis. A similarly high percentage of unique variation was explained in the student-based brand equity: value and quality dimensions, 61% and 51% respectively, by the variables in this thesis. Overall the percentage of unique variation explained in the student-based brand equity dimensions remained consistent through the structural equation modelling investigation. The percentage of unique variation explained in the value dimension strengthened from 59% to 61% (see Figures 5.38 and 5.49). Similarly the percentage of unique variation explained in the loyalty dimension increased marginally from 76% to 77% (see Figures 5.38 and 5.49). However it did drop marginally by one percent with the final modification (see Figure 5.47). The percentage of unique variation explained in the quality dimension dropped marginally (by one percent) during the structural equation modelling investigation to 51% (see Figures 5.38 and 5.49).

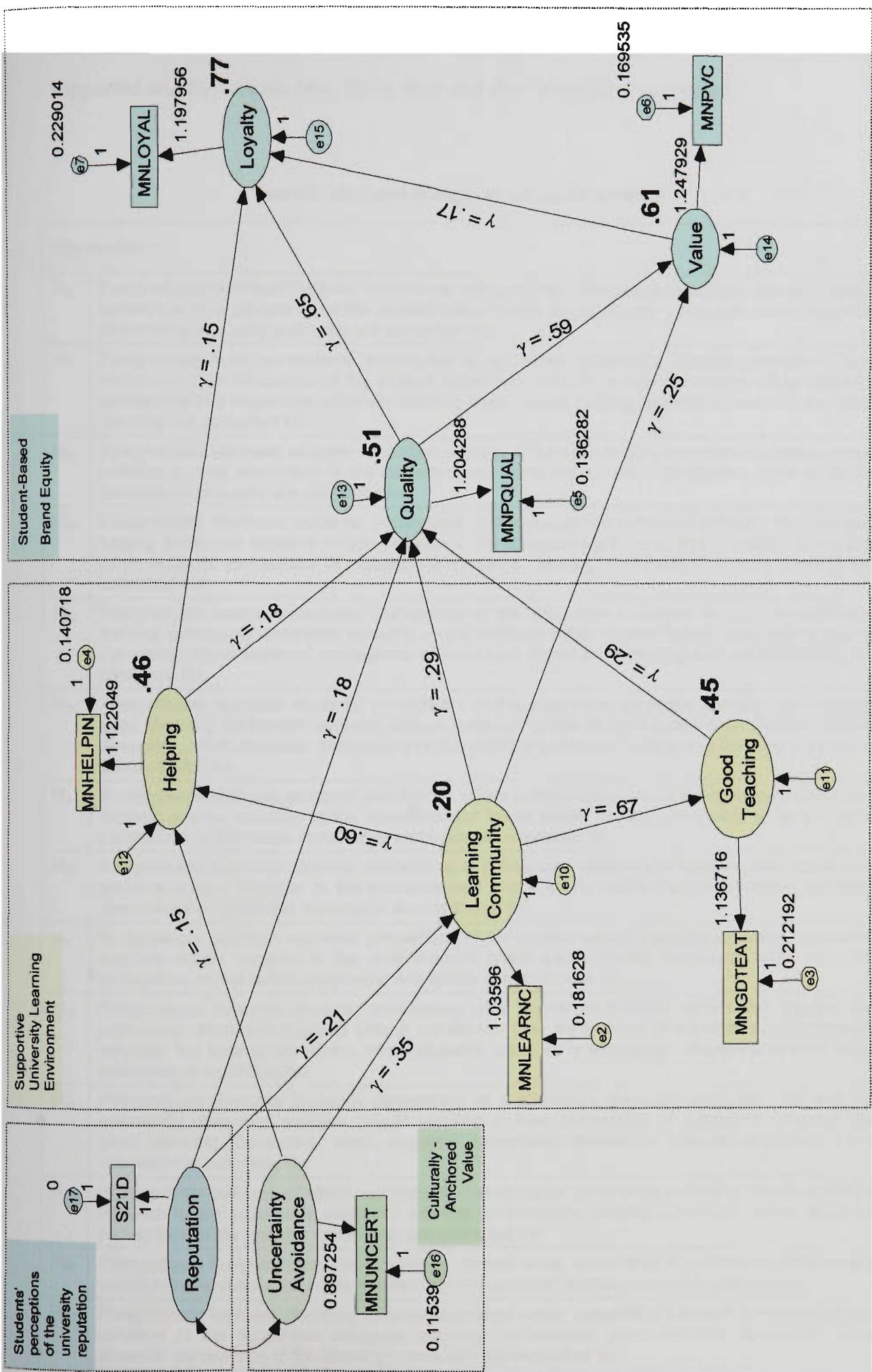


Figure 5.49: Maximised Reliability Model

Table 5.24 below presents the level of support for each of the hypotheses tested within this thesis. As illustrated in Table 5.24 hypotheses one and six were only partially supported and hypothesis two, three, four and five were fully supported.

**Table 5.24: Level of Support for the Hypotheses**

Hypothesis		Level of Support
H <sub>1a</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: loyalty dimension, when students' perceptions of quality and value are controlled for.	Not Supported
H <sub>1b</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: quality dimension, when students' perceptions of a supportive university learning environment: helping, learning community and good teaching are controlled for.	Supported
H <sub>1c</sub>	Postgraduate business students' importance rating of their university's reputation explains unique variation in their perception of the student-based brand equity: value dimension, when students' perceptions of quality are controlled for.	Not Supported
H <sub>2a</sub>	Postgraduate business students' perceptions of the supportive university learning environment: helping dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, learning community and good teaching are controlled for.	Supported
H <sub>2b</sub>	Postgraduate business students' perceptions of the supportive university learning environment: learning community dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and good teaching are controlled for.	Supported
H <sub>2c</sub>	Postgraduate business students' perceptions of the supportive university learning environment: good teaching dimension explains unique variation in the student-based brand equity: quality dimension, when students' perceptions of reputation importance, helping and learning community are controlled for.	Supported
H <sub>3a</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and value are controlled for.	Supported
H <sub>3b</sub>	Postgraduate business students' perceptions of the student-based brand equity: quality dimension explains unique variation in the student-based brand equity: value dimension, when students' perceptions of reputation importance are controlled for.	Supported
H <sub>4</sub>	Postgraduate business students' perceptions of the student-based brand equity: value dimension explains unique variation in the student-based brand equity: loyalty dimension, when students' perceptions of reputation importance and quality are controlled for.	Supported
H <sub>5a</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive administrative services: the helping dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.	Supported
H <sub>5b</sub>	Postgraduate business students' perceptions of a supportive learning community: the learning community dimension explains unique variation in their perceptions of supportive teaching: the good teaching dimension, when students' uncertainty avoidance culturally-anchored value orientation is controlled for.	Supported
H <sub>6a</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: helping dimension, when students' perceptions of the learning community are controlled for.	Supported
H <sub>6b</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: learning community dimension.	Supported
H <sub>6c</sub>	Postgraduate business students' culturally anchored value: uncertainty avoidance explains unique variation in the supportive university learning environment: good teaching dimension, when students' perceptions of the learning community are controlled for.	Not Supported

The standardised regression weights of pathways, standard errors, critical ratios and probabilities of the maximised reliability model, see Figure 5.49 above, is presented below in Table 5.25.

**Table 5.25: Maximised Calibration Model Standardised Regression Weights of Pathways, Standard Errors, Critical Ratios and Probabilities**

Hypothesis No.	Pathways		Beta	SE	CR	P
H <sub>1b</sub>	Reputation	→ Quality	.180	.033	3.498	.001
H <sub>2a</sub>	Helping	→ Quality	.178	.080	2.332	.020
H <sub>2b</sub>	Learning Community	→ Quality	.287	.107	2.781	.005
H <sub>2c</sub>	Good Teaching	→ Quality	.286	.086	3.537	.001
H <sub>3a</sub>	Quality	→ Loyalty	.653	.077	8.347	.001
H <sub>3b</sub>	Quality	→ Value	.592	.069	8.523	.001
H <sub>4</sub>	Value	→ Loyalty	.171	.074	2.267	.023
H <sub>5a</sub>	Learning Community	→ Helping	.603	.064	9.256	.001
H <sub>5b</sub>	Learning Community	→ Good Teaching	.672	.060	10.887	.001
H <sub>6a</sub>	Uncertainty Avoidance	→ Helping	.147	.060	2.303	.021
H <sub>6b</sub>	Uncertainty Avoidance	→ Learning Community	.351	.065	5.156	.001
M <sub>1</sub>	Reputation	→ Learning Community	.211	.039	3.318	.001
M <sub>2</sub>	Learning Community	→ Value	.250	.074	3.515	.001
M <sub>3</sub>	Helping	→ Loyalty	.149	.056	2.734	.006

All of the beta weights presented above in Table 5.25 are represented as  $\gamma$  weights on the maximised reliability model (Figure 5.49) and are of course identical at the second decimal place. All of the critical ratios; and probabilities in the direction hypothesised; were acceptable, above 0.196 and below 0.05 respectively.

## 5.5 The Validation Model

The validation sample was used to test and assess the retained adequate fit of the modified structural model. Figure 5.50 below presents the fit indices of Model 7: Validation Sample and Figure 5.51 presents Model 7: Validation Sample Structural Equation Model diagrammatically.

**Figure 5.50: Model 7 Validation Sample**

<b>Model 7: Validation Sample</b>	
$\chi^2 = 24.1, df = 13, p = 0.031$	(Unacceptable fit)
$\chi^2/df = 1.850$	(Acceptable fit)
GFI = 0.979	(Acceptable fit)
AGFI = 0.941	(Acceptable fit)
CFI = 0.988	(Acceptable fit)
TLI = 0.973	(Acceptable fit)
RMR = 0.040	(Acceptable fit)
RMSEA = 0.058	(Moderate fit)

Similar to the Optimised Calibration Sample Model 7, the Model 7: Validation Sample was also within the acceptable ranges of the fit indexes. The RMSEA was a moderate fit being above 0.05 but still within acceptable measures (see: Browne & Cudeck 1993). The significance p value was on the cusp of being acceptable at 0.031.

The validation model maintains good explanatory power for the variables under discussion like the calibration sample. It was found that in two of the three student-based brand equity dimensions: loyalty and value had increased unique variation explained, 81% and 65% respectively, an increase of 4% in loyalty and 3% in value (see Figures 5.49 and 5.51). It was also found that the unique variation explained in the quality dimension marginally decreased (by one percent) to 50% as illustrated in Figures 5.49 and 5.51.

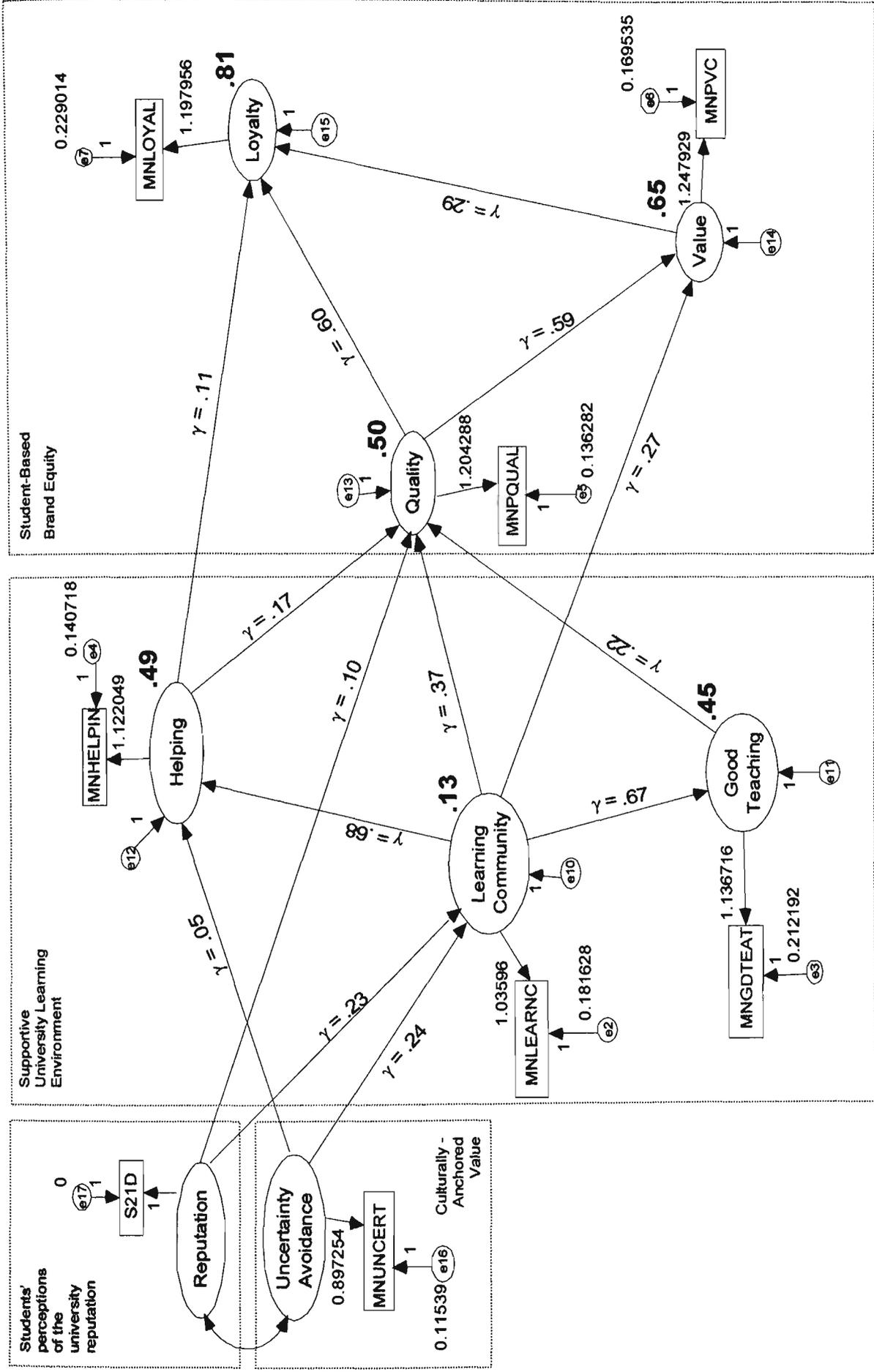


Figure 5.51: Model 7 Validation Sample Structural Equation Model

Table 5.26 below, presents the standardised regression weights of the pathways, standard errors, critical ratios and probabilities of the validation sample structural equation model which is represented diagrammatically in Figure 5.51 above. The results of the validation sample structural equation model confirm the fit of the maximised calibration model fit.

**Table 5.26: Validation Model Standardised Regression Weights of Pathways, Standard Errors, Critical Ratios and Probabilities**

Hypothesis No.	Pathways		Beta	SE	CR	P
H <sub>1b</sub>	Reputation	→ Quality	.103	.035	2.001	.045
H <sub>2a</sub>	Helping	→ Quality	.174	.103	2.090	.037
H <sub>2b</sub>	Learning Community	→ Quality	.372	.120	3.440	.001
H <sub>2c</sub>	Good Teaching	→ Quality	.218	.092	2.719	.007
H <sub>3a</sub>	Quality	→ Loyalty	.596	.072	8.059	.001
H <sub>3b</sub>	Quality	→ Value	.595	.067	8.898	.001
H <sub>4</sub>	Value	→ Loyalty	.285	.070	3.964	.001
H <sub>5a</sub>	Learning Community	→ Helping	.684	.055	11.071	.001
H <sub>5b</sub>	Learning Community	→ Good Teaching	.670	.059	10.936	.001
H <sub>6a</sub>	Uncertainty Avoidance	→ Helping	.054	.053	.893	.372
H <sub>6b</sub>	Uncertainty Avoidance	→ Learning Community	.236	.068	3.369	.001
M <sub>1</sub>	Reputation	→ Learning Community	.231	.040	3.534	.001
M <sub>2</sub>	Learning Community	→ Value	.273	.076	3.977	.001
M <sub>3</sub>	Helping	→ Loyalty	.106	.062	2.031	.042

Similar to the calibration sample's results, the validation sample also produced similar results. All of the beta weights in Table 5.26 are represented as  $\gamma$  weights on the validation sample structural equation model (Figure 5.51) and are identical at the

second decimal place. All of the critical ratios, and the probabilities in the direction hypothesised were acceptable, above 0.196 and below 0.05 respectively.

## **5.6 Chapter Summary**

This chapter presented the results of this thesis. It detailed the statistical findings among students' importance ratings of the university reputation (reputation), the uncertainty avoidance culturally-anchored value orientation, the supportive university learning environment variables of: learning community, good teaching and helping, and the student-based brand equity variables: quality, value and loyalty. Chapter 6 expands on the results presented in this chapter by discussing the implications of this thesis' findings and outlines plausible research extensions.

## Chapter 6: Discussion

*Customers today want more of those things they value. If they value low cost, they want it lower. If they value convenience or speed when they buy, they want it easier and faster. If they look for state of the art design, they want to see the art pushed forward. If they need expert advice, they want companies to give them more depth, more time, and more of a feeling that they're the only customer...By raising the level of value that customers expect from everyone, leading companies are driving the market, and driving competitors down hill (Treacy & Wiersema 1995, p. 88).*

*A company that delivers value via customer intimacy builds bonds with customers like those between good neighbours. Customer intimate companies don't deliver what the market wants but what a specific customer wants. The customer intimate company makes a business of knowing the people it sells to and the products and services they need. It continually tailors its products and services and does so at reasonable prices. Its proposition is: "We take care of you and all your needs", or "We get you the best total solution". The customer intimate company's greatest asset is its customers' loyalty (Treacy & Wiersema 1995, p. 94).*

### 6.1 Objectives and Structure of the Chapter

The purpose of this chapter is to provide a detailed rationale on this thesis' findings and future research directions. This chapter is presented in four sections. The first section presents a detailed discussion on the overview of results. Specifically it presents the results of the six hypotheses tested and compares the results to previous research within the literature domains. Section two of this chapter discusses the implications of the four research questions addressed in this thesis. It also presents a rationale of strategies that non elite branded universities and its new generation university sub-group can employ. The third section of this chapter presents this study's limitations and future research directions. A number of extensions to this research are also presented within this third section. Section four presents this thesis' conclusion and summarises the contribution to knowledge in this area. Specifically, it sums up the key findings of this research thesis, and its implications for the management and development of student-based brand equity in non elite branded universities and the new generation university subgroup.

## **6.2 Overview of Results**

This section presents an overview of the results within this study and is presented through eleven subsections. Subsection one presents the discussion relating to the relationship between the university's reputation importance to students. The second subsection discusses the effect of university reputation importance on the student-based brand equity dimensions: quality; value; and loyalty. Subsection three presents students' perceptions of student-based brand equity: quality; value; and loyalty. The fourth subsection discusses the student-based brand equity dimensions: quality; value for cost; and loyalty. Subsection five presents the discussion on university reputation and: administrative support; learning community; and academic support. Subsection six discusses the university's reputation importance on student-based brand equity. The seventh subsection presents the discussion on non elite branded universities: reputation and loyalty. Subsection eight discusses the non elite branded universities: reputation and value for cost. The ninth subsection presents the discussion on: administrative support; academic support; and learning community and the student based brand equity dimensions: quality; and value for cost. Subsection ten presents the discussion on: administrative support; academic support; and learning community and loyalty. Subsection eleven discusses the effect of the uncertainty avoidance culturally-anchored value orientation on course and course related experiences: administrative support; academic support; and learning community.

### **6.2.1 University Reputation Importance to Student Selection**

Within the state of Victoria there are eight universities that have their main campus in the state. Three Victorian universities were included in the 2006 Academic Ranking of World Universities top 500 list: the University of Melbourne (ranked 78); Monash University (ranked 201-300); and La Trobe University (ranked 301-400) (ADRW 2006), see Table 2.2 in Chapter 2. These universities can be considered elite branded universities as argued earlier in section 2.2 in Chapter 2. An examination of the Financial Times Global MBA rankings (FT 2006) identified the top 100 business schools, as previously outlined in Table 2.4 in Chapter 2. Within this elite branded ranking only two Australian business schools made the list: the Melbourne Business School and the Australian Graduate School of Management. Only one of which is

based in Victoria, the Melbourne Business School with a ranking of 69 forms part of the University of Melbourne which is also ranked in the top 100 of the World University top 500 list in 2006. The Melbourne Business School has also consistently achieved a band one rating in the Australian Financial Review's Boss Survey (AFR 2005). The Melbourne Business School charges \$48,000 for an MBA. The university in this thesis was classified as a band three university in the Australian Financial Review's Boss Survey (AFR 2005) and charges approximately 50% less than the Melbourne Business School for an MBA, as illustrated earlier in Table 2.5 in Chapter 2.

The university within this study was not one of the Victorian universities identified in the top 500 list nor has it an elite branded MBA program. The university in this thesis is a non elite branded, new generation university. In section 2.2 in Chapter 2 it was noted that the universities that appear in the Academic Ranking of World Universities excel in what Treacy and Wiersema (1993; 1995; 1997) called a product/service leadership discipline as the criteria is product oriented focusing on the quality of education through the following criteria: the number of alumni Nobel Prize winners, the number of alumni field medallists, the number of staff Nobel Prize winners, the number of highly cited researchers in 21 subject categories, research output and the size of the university, which has been previously documented in Table 2.1 in Chapter 2. Since this university was not rated in the top 500 universities, and the fact that the majority of the students (over 76%) were international suggests that this university would also not have the advantage of a strong locally based reputation, and is argued that this university has a low to medium brand associations when compared to the University of Melbourne, Monash University, La Trobe University and other Universities in Victoria and Australia. The university within this thesis would also have low to medium brand associations with regards to their MBA program when compared to the: Melbourne Business School; the Australian Graduate School of Business; and the other band one MBA schools throughout Australia (University of Queensland Business School, Brisbane Graduate School of Business and The Graduate School of Business).

For these reasons this university's Master of Business programs was viewed as falling into the generic substitutes category where price is a major criterion of selection. As noted above and previously in section 2.2.1 in Chapter 2 the tuition fees charged for these Master of Business courses is approximately half of that charged by the elite branded Australian business schools. In contrast to students attending a top 500 university or one with a high MBA ranking the students attending this university are less likely to be driven by their prior associations with the brand.

## **6.2.2 University Reputation Importance and Student-Based Brand Equity**

Kotler and Keller's (2006) consumer-based brand equity key ingredients with regards to university reputation importance and student-based brand equity is discussed below from a theoretical perspective. This thesis focused on the consumer-based brand equity approach which focuses on how consumers' perceptions about the brand evolve over time through experience with the brand. In other words it is what consumers have been exposed to (what they have seen, read, heard, learned and felt about the brand). This section presents a discussion on the associations between the brand image factor: university reputation importance as a university selection criterion and the student-based brand equity dimensions: perceived quality, value for cost and loyalty.

As previously discussed in section 2.3 in Chapter 2, Kotler and Keller (2006) described consumer-based brand equity as having three key ingredients: consumer response differences; consumer brand knowledge; and consumer differential responses. They described the first ingredient of brand equity as differences in consumers' responses and illustrated the importance of consumer response differences by stating if there were no differences then the branded product and or service is viewed as a commodity and therefore treated by consumers as a generic product or service. Within a university environment a lack of a consumer response difference means that a postgraduate business degree from one university is viewed as a generic substitute for a postgraduate business degree from another provider and as a consequence price is the only competitive criterion used in program selection. In this thesis it was found that current students at this Melbourne based university located in

Victoria Australia, generally saw the university's reputation as an important factor in their University selection choice.

One hundred and seventy seven students (70%) saw it as being a somewhat important factor, very important or an extremely important factor in their university selection, as outlined in section 5.2.2.2 in Chapter 5. Thirty seven students (14.5%) viewed the university's reputation as unimportant and the remaining forty one students (16.5%) did not see their university's reputation as either important or unimportant with a mean response of students equating to 5.1 out of 7, which reflects that most students saw the university's reputation as being somewhat important in their university course selection process. The students, as potential consumers, have different responses to the importance of reputation as a component of their university selection choice. A caution with these responses is needed however as these results reflect the importance of reputation as a selection criterion after the student has enrolled and the student has had some course and course related experiences. It seems plausible that subsequent identification with the university has caused this score to be inflated as 47% saw this factor as very important or extremely important but still chose a university of, as will be discussed, a relatively low reputation. The issues of getting value for cost or the ability to gain entry into a desired course may have been factors that ultimately proved more relevant to his/her ultimate selection than the importance that was placed on the university's reputation as a selection criterion. How identification with a non-elite reputation university might change the retrospective importance placed on reputation as a selection criterion, might be an interesting area for further empirical research as might the actual selection criteria of students who ultimately choose a non-elite branded university with relative weak brand associations.

The second ingredient of consumer-based brand equity is the consumer's brand knowledge (Kotler & Keller 2006), as presented earlier within section 2.3 in Chapter 2. Consumer brand knowledge was subsequently defined by Kotler and Keller (2006) as all images, experiences, thoughts and feelings that a consumer associates with the brand. In a university context brand knowledge can be thought of as the differences in student responses towards their postgraduate business degree program and is reflected in students' perceptions, preferences and behaviours and these are shaped in part by the marketing of the university and its courses to others. Prior to students' enrolments

in this university it can be suggested that it is likely to be based on the previous argument about existing reputation that students had relatively low brand knowledge compared to the elite branded universities. As Kotler and Keller (2006) state: increasing brand knowledge can have either a positive or negative affect on brand equity.

As previously discussed in section 2.3 in Chapter 2 the final ingredient of the consumer-based brand equity approach is the differential effect, which is differences in consumers' perceptions of quality and value for cost and their different preferences and behaviours in relation to the brand and any marketing of it (Kotler & Keller 2006). In a university context, this can be seen as the students' perceptions of whether their course and course related experiences was of high quality and whether it also provided good value for money. As identified in section 1.3 in Chapter 1, there are three types of consumers: the no-risk environment preference consumer, the moderate risk environment preference consumer and the high risk environment consumer. As the university within this thesis has been identified as non elite branded, it is the notion of price conscious students that is interesting. As previously outlined in Figure 1.2, this student consumer base is captured within the first uncertainty cultural state and these students may be more likely to be conscious of the level of course and course related experiences they receive in return for their tuition fees, and whether these perceptions affect students' willingness to refer the university and its courses to others.

### **6.2.3 Student-Based Brand Equity Dimensions: Quality, Value for Cost and Loyalty**

This section presents a discussion on the relationships between the student-based brand equity loyalty dimension and the other two student-based brand equity dimensions: perceived quality and value for cost. As discussed in section 2.4.3 in Chapter 2, brand loyalty has been described as the central component of consumer-based brand equity by Aaker (1991). Aaker (1991) added that the relationship between brand loyalty and switching behaviour is an inversed one, that is as brand loyalty increases, the chance of switching behaviour decreases. At the zero order correlation level, this thesis confirmed that there are high associations which are

highly significant between the student-based brand equity dimensions: loyalty, quality and value for cost, as presented earlier in section 5.4.1 in Chapter 5. The correlation coefficients between the loyalty dimension and the quality and value for cost dimensions are 0.759 ( $R^2 = 0.576$ ) and 0.649 ( $R^2 = 0.421$ ) respectively. This suggests that students' perceptions of university quality explains approximately 58% of variation in their perceptions of loyalty towards the university; and that students' perceptions of the university's value for cost approximately explains 42% of the variation in their loyalty towards the university. The zero order correlation coefficient between the quality and value for cost dimensions is 0.683 ( $R^2 = 0.466$ ), which suggests that approximately 47% of variation in value is explained by students' perceptions of quality. Although these dimensions are highly correlated, the correlation coefficients are lower than the Cronbach's alpha which suggests good discriminant validity.

As discussed earlier in section 2.4.3 in Chapter 2, Aaker's (1991) hierarchical model of brand loyalty and its associations with consumer perceptions of quality was discussed and six categories of brand loyalty were identified. The first was the "switchers/price sensitive indifferent category". This is the category whereas prospective students are pressured and therefore make a convenient selection. The second category was the "satisfied habitual buyer no reason to change". This category is likely to be where students are not dissatisfied with their university and course selections. The third category of "satisfied buyer with switching costs" was where students have levels of satisfaction with their university and course selection. The fourth category of "likes the brand", could be seen as student satisfaction with their university and course selection, the support services provided by their university and the value for cost associated with these services. The fifth category was the "committed consumer" who equates to a proud alumnus who maintained strong links with their university.

The second, third and fourth categories of brand loyalty outlined above and previously in section 2.4.3 in Chapter 2, link to perceptions of quality. Categories two and three link to perceived quality and category four to value for cost. These associations are also supported in the literature as Parasurman and Grewal (2000) and Petrick (2004b; 2004a) confirmed that there are explicit direct associations between quality, value and

loyalty as well as a mediated effect between quality and loyalty through value. Griffin (2002) also highlights the aforementioned associations between loyalty and the quality domains through a purchase cycle perspective. In a university setting the attachment to the university and its courses is what students or prospective students feel and these feelings are shaped by the preference for the university and the perceived differentiation of the university and its courses in comparison to all other available choices.

The two propositions that arose from the discussion of the loyalty literature in section 2.4.3 in Chapter 2 (P<sub>3</sub> and P<sub>4</sub>), where: the third proposition stated that students' perceptions of the perceived quality of their course influence their perceptions of value for cost and loyalty; and the fourth proposition stated that students' perceptions of value for cost influence their perceptions of loyalty. These propositions were subsequently operationalised into two hypotheses (H<sub>3</sub> and H<sub>4</sub> respectively). Hypothesis three comprised of two sub-hypotheses which gauged the effect of students' perceptions of quality on their perceptions of value for cost and loyalty. Hypothesis four gauged the effect of value for cost on students' perceptions of loyalty. As both hypotheses were supported it was concluded that: postgraduate business students' perceptions of perceived quality influenced their perceptions of value for cost and loyalty; and postgraduate business students' perceptions of value for cost also influenced their perceptions of loyalty (see section 5.4.2: Chapter 5).

As previously stated in section 5.4.1 in Chapter 5, the associations between the student-based brand equity dimensions loyalty and quality, loyalty and value, and quality and value were significant at the zero order correlational level of analysis. The relationships between the student-based brand equity dimensions were retained during the structural equation modelling investigation. These relationships between student perceptions about quality, value for cost and loyalty is consistent with the literature. Particularly with: Aaker's (1991) loyalty pyramid; Griffin's (2002) purchase/repurchase cycle; Caldow's (1998) frames of reference to loyalty; Andreassen and Lindestad's (1998) extension of Aaker's (1991) framework; and Parasuraman and Grewal's (2000) and Petrick's (2004b; 2004a) explicit direct associations between the quality and value dimensions and mediated effect between

quality and loyalty through value; that have been discussed in greater detail in section 2.4.3 in Chapter 2.

Therefore in a postgraduate business university setting, it can be suggested that postgraduate business students' perceptions of quality, that is the quality of the university's courses and the outcomes delivered by the university's courses, influences value for cost (the worth of the course in respect to price, time and effort outlaid for knowledge gained). In turn both student perceptions of quality and value for cost influence their level of loyalty towards the university, in other words students' willingness to refer the university and its courses to others. These findings are somewhat important to universities in order to maintain and grow their student enrolments. Particularly as student word of mouth recommendation is such an important marketing tool for universities as outlined in the literature by Mavondo, Zaman and Abubakar (2000), Athiyaman (2000) and Harris and Uncles (2000) in section 1.2.1 in Chapter 1, where positive student course and course related experiences with positive word of mouth from others increases the likelihood of service reuse. Similarly negative student course and course related experiences with positive word of mouth from others also increases the likelihood of service reuse. Negative student course and course related experiences with negative word of mouth from others decrease the likelihood of service reuse.

The relationships between the consumer-based brand equity dimensions is also supported within: Aaker's (1991) and Biel's (1992) frameworks; and Parsuraman and Grewal's (2000) quality, value, loyalty chain. This is consistent with Aaker's (1991) framework, as he explicitly stated that there are complex relationships between each of the consumer-based brand equity dimensions. He added that each consumer-based brand equity dimension may be an input into another. These associations do not appear in his consumer-based brand equity illustration which was presented in Chapter 2. Biel's (1992) framework acknowledges that the consumer-based brand equity dimensions lead to the market value of the brand. However, his framework does not provide a fine grained analysis on the relationships between the consumer-based brand equity dimensions. The direct and mediated relationships between: quality and loyalty; quality and loyalty through value; and value and loyalty is

consistent with Parasuraman and Grewal's (2000) quality, value, loyalty chain and Petrick's (2004b; 2004a) results.

#### **6.2.4 Students' Perception of Quality, Value for Cost, and Loyalty**

Students' perceptions of quality, value for cost, and loyalty, as previously noted in section 5.4.1 in Chapter 5, were all highly significant with reasonably strong correlation coefficients. Although the correlations between quality, value for cost and loyalty were strongly correlated they were below the Cronbach's alphas for the dimensions which suggest good discriminant validity (see Table 5.22: Chapter 5). As previously discussed in section 5.2.2.5 in Chapter 5 the mean score of students' perceptions of the university's quality was 3.9 (see Figures 5.11 and 5.12: Chapter 5). This suggests that these students on average neither agree or disagree that this university provides good quality course and course related experiences. A closer examination of the quality dimension established that only 83 students (32.5%) were either somewhat satisfied, satisfied or very satisfied with the quality of their course and course related experiences, compared to 73 students (28.6%) who were either somewhat dissatisfied, dissatisfied or very dissatisfied with the quality of their course and course related experiences. The majority of students (99 or 38.9%) had no opinion and this is reflected in the mean score of 3.9. The net promoter quality score equated to -58%, as illustrated in Table 5.4 in Chapter 5, in relation to students' perceptions of the university's quality. This suggests that the university is creating more dissatisfied students than satisfied ones on a daily basis. In other words there are more students willing to engage in negative word of mouth about the university's quality (detracting from the university) in comparison to students' willingness to engage in positive word of mouth recommendations about the university's quality (promoting the university). How students' perceptions of quality course and course related experiences might change the retrospective importance placed on reputation as a selection criterion might be an interesting area for further empirical research. What students' define as quality experiences within non elite branded universities is also an interesting question for further empirical investigation.

Section 5.2.2.5 in Chapter 5 also discussed the initial value for cost results. The mean for value for cost equated to 4.3. This suggested that on average students were neither

satisfied nor dissatisfied with the course's value for cost. As illustrated in Figures 5.13 and 5.14 in Chapter 5 almost half that is 48.6% of students (124 students) somewhat agreed, agreed or strongly agreed that the value for cost of this university's Master of Business programs was acceptable in terms of knowledge gained to price, time and effort outlaid. Only 22.4% of students (57 students) were found to be somewhat dissatisfied, dissatisfied or very dissatisfied with the value of the Master of Business programs at this university and the remaining 29% of students (74 students) neither agreed nor disagreed that the university course provided good value for money. The net promoter value score was -35% (see Table 5.5: Chapter 5), and has many, many more detractors than promoters. This suggests that the majority of students hold negative perceptions about the university's value. This is likely to be reflected through negative word of mouth by students within their networks. Two interesting areas for further empirical research might be: how students' perceptions of value for cost with regards to their course and course related experiences might change their retrospective importance placed on reputation as a selection criterion; and how students at non elite branded universities define value.

As Barich and Kotler (1991) noted, the role of university image and reputation in customer buying intentions is important. As previously discussed in section 5.2.2.5 in Chapter 5, it was found that the mean score of students' loyalty towards the university was 4.3. Figures 5.15 and 5.16 in Chapter 5 illustrate that 106 students (42%) were either somewhat willing to recommend this university and its courses to others, willing to recommend this university and its courses to others, or very willing to recommend this university and its courses to others. Whereas 20% or 51 students were either somewhat unwilling to recommend this university and its courses to others, unwilling to recommend this university and its courses to others or very unwilling to recommend this university and its courses to others. The remaining 38% or 98 students were neither willing nor unwilling to recommend this university and its courses to others. The loyalty net promoter score of -43% (see Table 5.6: Chapter 5) in relation to students' willingness to recommend the university and its courses to others, like the quality net promoter score and the value net promoter score, was well below the normal range identified by Reichheld (2006). This suggests that there are more students not willing to refer the university and its courses to others (detractors) than those who will engage in such word of mouth recommendations (promoters).

This result in the long run may have a severe impact on this non elite branded, new generation university. Another interesting area for further research might be how students' perceptions of loyalty might change their retrospective importance placed on reputation as a selection criterion.

### **6.2.5 University Reputation and Its Impact on Administrative Support, Learning Community and Academic Support**

As discussed earlier in section 2.4.1 in Chapter 2, Oliver (1980) claimed that the reputation of a product/service can create certain consumer expectations. Within this thesis, as previously discussed in section 2.4 in Chapter 2, the university's image was implicitly obtained through students' existing perceptions of how important their university's reputation was as a university course selection criterion. The university within this research is a non elite branded new generation university, which is not one of high reputation as previously discussed in greater detail in section 2.2 in Chapter 2. As previously noted in Australia there are sixteen universities that have rated in the top 500 Academic Ranking of World Universities, which includes the group of eight leading universities within Australia (see: GO8 2006), and three Victorian based universities (University of Melbourne and Monash University both of which are in the group of eight and La Trobe University), and two MBA business schools identified in the 2006 top 100 business schools, with one from Victoria (The Melbourne Business School/The University of Melbourne). The university in this study is not one of these three Victorian based universities.

Kennedy (1977) and Nguyen and LeBlanc (2001) identified two components of the university's image: functional and emotional. The functional component includes tangible characteristics whereas the emotional component focuses on the psychological dimensions which are manifested by feelings and attitudes towards the organisation. As presented earlier in section 2.4.1 within this thesis, students' importance ratings of the university's reputation are gauged through a global item. This thesis found that students' existing importance perceptions of the university's reputation had highly significant (at the 0.01 level) correlations with students' perceptions of their course and course related experiences: whether the university's administrative support (helping), the university's learning community was enriching

and academic support through good teaching practices was experienced (see Table 5.22: Chapter 5).

As discussed in section 5.2.2.4 in Chapter 5, the mean score of students' perceptions of: the university's administrative support, the university's learning community, and academic support through good teaching was: 4.2, 4.5 and 4.4 respectively. A closer examination found that 41% (104 students) agreed that the university's administrative support were either somewhat helpful, helpful or very helpful as opposed to 23% (59 students) who disagreed and believed that the university's administrative support were either somewhat unhelpful, unhelpful, or very unhelpful (see Figures 5.9 and 5.10). The remaining 36% (92 students) neither agreed nor disagreed that the university's administrative support were helpful. The administrative staff (helping) net promoter score equated to -43% (see Table 5.3). This is also well below the norm of 5-10% as discussed by Reichheld (2006) suggesting the university has more detractors than promoters. This suggests that the number of students who do not promote the university through positive word of mouth recommendations about the helpfulness of the university's administrative support severely outnumber those students who are likely to engage in positive word of mouth about the level of administrative support. This administrative support (helping) net promoter score provided a more fine grained analysis of students' perceptions of the university's administrative support than the mean score of 4.2.

As presented earlier in section 5.2.2.4 in Chapter 5, the majority of students surveyed within this thesis, 54% or 138 students either somewhat agreed, agreed or strongly agreed that the university had a positive learning community to 17.6% or 45 students who either somewhat disagreed, disagreed or strongly disagreeing that the university provided a community dedicated to learning and 28.4% (72 students) neither agreed or disagreed (see Figures 5.5 and 5.6). Students' perception of the university's learning community yielded a learning community net promoter score of -29% (see Table 5.1) which suggests that the majority of students are not engaged in promoting the university's learning community through positive word of mouth. This learning community net promoter score of -29% is also much lower than the norm outlined by Reichheld (2006) and provides more detail than the mean score of 4.5.

Just over half of the students (52% or 133 students) either somewhat agreed, agreed or strongly agreed that they received adequate academic support through good teaching (see Figures 5.7 and 5.8). A total of 55 students (21.5%) were found to either somewhat disagree, disagree or strongly disagree that the university has adequate academic support through good teaching. The remaining 26.5% or 67 students neither agreed nor disagreed that the university provided adequate academic support through good teaching. The good teaching net promoter score was -27% (see Table 5.2). Again this is well below the average score received by many organisations (Reichheld 2006), and suggests that the amount of students who engage in negative word of mouth recommendations (detractors) about the university's academic support through good teaching out numbers any positive comments (promoters) about the university's academic support through good teaching. The negative net promoter scores for helping (-43%), learning community (-29%) and good teaching (-27%) raises the following question for further investigation: how do students define a supportive university learning environment?

Students' importance ratings of the university's reputation had weak correlations with administrative support (helping), the university's learning community and academic support through good teaching, as presented earlier in Table 5.22, with zero order correlation coefficients of 0.171 ( $R^2 = 0.029$ ), 0.262 ( $R^2 = 0.069$ ) and 0.184 ( $R^2 = 0.034$ ) respectively. This suggests that the relationship between students' importance ratings of the university's reputation and their perceptions of administrative support (helping) approximately explains 2.9% of the variation between the two variables, which has quite low explanatory power. The association between students' importance ranking of the university's reputation and their perceptions of the university's learning community approximately explains 6.9% of the variation between the variables which also has low explanatory power. Approximately 3.4% of the variation in academic support through good teaching was explained by students' importance ratings of the university's reputation, which also had quite low explanatory power. The variation in university reputation importance at the time of university and course selection between elite branded and non elite branded universities may be an interesting area for further empirical research.

## 6.2.6 Reputation Impact on Loyalty, Quality and Value for Cost

The aim of this thesis was not to explicitly measure the levels of brand awareness, brand associations, brand image and reputation of the university as perceived by the student stakeholder group as part of their university selection process but to examine how a student's university experience contributed to the development of consumer-based brand equity beyond that accounted by perceptions of university reputation importance at the time of university selection. The analysis however did control for the impact of postgraduate business students' pre-existing importance ratings of the university's reputation on the student-based brand equity elements of loyalty, perceived quality and value for cost.

As presented earlier in Table 5.22 in Chapter 5, at the zero order level, the correlations between students' importance ratings of the university's reputation were highly significant, with the student-based brand equity dimensions: loyalty, quality and value for cost. The level of the correlations between reputation importance at time of selection and the student-based brand equity dimensions was weak to moderate with the correlation coefficients of loyalty 0.334 ( $R^2 = 0.112$ ), quality 0.329 ( $R^2 = 0.108$ ) and value 0.215 ( $R^2 = 0.046$ ). Therefore it can be stated that approximately 11.2% of the variation in loyalty is explained by the importance the student placed on the university's reputation as part of their selection choice.

Reputation and quality had a weak to moderate correlation and approximately 11% of the variation in quality was explained by students' importance ratings of the university's reputation. There was low explanatory power between reputation and value where only approximately 4.6% of the variation in value was explained by students' importance ratings of the university's reputation. During the structural equation modelling investigation only one of the three pathways was retained (see section 5.4.2: Chapter 5). It was found that only the pathway between students' importance ratings of the university's reputation and quality remained significant. The pathways students' importance ratings of the university's reputation and loyalty; and students' importance ratings of the university's reputation and value were found not to be significant once the other variables were controlled for.

Oliver (1980) raised the importance of consumer evaluations about the product and or service performance. This process involved identifying what is good or acceptable about the brand and this shapes brand expectations. Nguyen and LeBlanc (2001) illustrate consumer evaluations about the product and or service performance in a university context with their description of a how to measure a university's image. They argued it is an aggregate result where consumers compare and contrast the various attributes of organisations. Raj (1985) and Dick and Basu (1994) have stated that a university's image and reputation are important in maintaining customer loyalty. This is also consistent with Barich and Kotler (1991), Milo, Edson and McEuen (1989) and Weissman (1990).

Existing consumer brand name associations has been previously discussed as having had a dramatic effect on consumers' perceptions of quality when the product information available is ambiguous (see: Hoch & Ha 1986). It was argued that existing consumer brand name associations may enhance a consumer's perceptions of the product or services' value (Dodds, Monroe & Grewal 1991). The first proposition stated that students' perceptions of brand equity are influenced by their importance ratings of the university's reputation, this was subsequently operationalised into hypothesis one which comprised of three sub-hypotheses which gauged the effect of students' importance ratings of the university's reputation on their perceptions of loyalty, quality and value.

As illustrated earlier in section 5.4.1 in Chapter 5, at a zero order level it was found that there were highly significant associations between university reputation importance and the student-based brand equity dimensions, however when the structural equation modelling investigation was conducted it was found that postgraduate business students' importance ratings of their university's reputation only partially influenced their perceptions of student-based brand equity (see section 5.4.2: Chapter 5). This is an interesting and unexpected finding as it was not consistent with the literature. Students' importance ratings of their university's reputation were found to only predict students' perceptions of quality directly. It is well documented in the literature that brand reputation has a dramatic effect on perceptions of quality as previously outlined in greater detail in section 2.4.1 in Chapter 2. Belen del Rio, Vazquez and Iglesias (2001) and Long and Schiffman

(2000) have clearly stated that a good reputation amongst consumers, particularly within their social groups or social groups they desire to become a part of, is a driving force which forms their desire to purchase. Selnes (1993) also stated that brand reputation is an important antecedent to intended loyalty, and that brand reputation in turn becomes a directive for future behaviour. This is also consistent with Jacoby and Chestnut (1978) and Tepeci (1999). In a university setting it is also well documented that a university's reputation is associated with customer loyalty (see: Nguyen & LeBlanc 2001). However the associations and effects discussed within the literature domain between reputation and loyalty, value and quality are the results obtained before the experience. The relationships between reputation and loyalty, quality and value have remained significant.

In this thesis only one pathway remained significant. The pathway between university reputation importance and quality was the significant direct pathway, whilst the direct relationships between university reputation importance and the loyalty and value dimensions became insignificant. Therefore within a university setting the perceived brand of the university seems to act as a reasonable predictor of the subsequent level of a student's perceived quality after they have had their university experience. The caution is that in this study, it is the importance level of reputation in their course selection that was only assessed after their course experience and not before. By only collecting the importance level of university reputation after some student course experiences, these experiences may be quite different to their perceptions prior to their enrolments. Therefore students' course and course related experiences may have enhanced or decreased their perceptions of the university's reputation importance as a university selection criterion.

This thesis found that the importance of the university's reputation as part of university selection only directly effected students' perceptions of quality. Despite the lack of direct effects between reputation importance ratings and the student-based brand equity loyalty and value for cost dimensions when students' uncertainty avoidance culturally-anchored value orientations and their course and course related experiences were controlled for, the structural equation modelling investigation revealed that there were indirect effects between reputation importance ratings and the loyalty and value dimensions through the student-based brand equity quality

dimension. These direct and indirect effects between the brand image factor reputation importance ratings and the student-based brand equity domains of quality and loyalty are consistent with: Aaker's (1991) and Biel's (1992) frameworks; and Parasuraman and Grewal's (2000) quality, value, loyalty chain.

The direct and indirect relationships between university reputation importance and the student-based brand equity quality and loyalty domains is consistent with Aaker's (1991) framework. The direct and indirect relationships between reputation importance and student-based brand equity is consistent with Aaker's (1991) description of: consumer interpretation, confidence in purchase decisions and use satisfaction. In this thesis this relates to students' perceptions of the importance ratings of their university's reputation and that this influences the student-based brand equity quality and loyalty domains. Aaker (1991) also explicitly stated that the consumer-based brand equity dimensions presented in Figure 2.3 in Chapter 2, are outputs and inputs even though these linkages do not appear in his figure.

The association between university reputation importance ratings and the consumer-based brand equity dimensions are also explicitly demonstrated in Biel's (1992) framework. This relationship has been presented in diagrammatic form in Figure 2.2 in Chapter 2. It has been previously discussed in Chapter 2 that the corporate image of the organisation, the image of the user and the image of the product and or service form brand image. This brand image in turn has a direct influence on perceptions of brand equity (Biel 1992). In a university setting, this is highlighted through students' perceptions of the importance of the university's reputation and their willingness to refer the course and institution to others. In other words the brand image factor reputation importance, influences the student-based brand equity domains of quality and loyalty.

The direct and indirect relationships found between the student-based brand equity dimensions in this thesis is identical to Parasuraman and Grewal's (2000) quality, value, loyalty chain. Parasuraman and Grewal (2000) claim that quality has both a direct and mediating relationship with loyalty. This was also supported within Petrick's (2004b; 2004a) results.

## **6.2.7 Non Elite Branded Universities: Reputation and Loyalty**

As previously discussed in section 2.4.1 in Chapter 2, there is a relationship between reputation and loyalty. This relationship has been confirmed by: Jacoby and Chestnut (1978); Milo, Edson and McEuen (1989); Wiessman (1990); and Selnes (1993). In this study this relationship was not realised as students' importance ratings of the university's reputation were not found to directly predict student loyalty towards the university, which is their willingness to refer the university and its courses to others. Possible explanations for why students' importance ratings of the university's reputation did not directly predict student loyalty towards the university may be due to a number of reasons.

One possible explanation may be due to what Kotler and Keller (2006) identified as the first key ingredient to consumer-based brand equity, the differences in consumer responses. As the postgraduate business student population obtained within this thesis was from a non elite branded new generation university, one with a low to medium reputation, the university and its courses may be seen as a commodity and treated as a generic version of the product (higher degree). Therefore, in such a context the Masters program from one university is simply seen as a generic substitute for a Masters program from another university and that the competitive criterion that leads to the selection of one over the other is price.

This also suggests that because this university has been identified as non elite branded, it is plausible to suggest that students' course and course related experiences may shape their perceptions of university reputation importance. In other words for the tuition fee outlaid, the services provided by the university and the knowledge gained by students through their courses can indeed potentially shape their referral behaviours and their perceptions of the university's reputation importance as a selection criterion. These students are also less likely to have pre-conceived biases about the university. For example students who enrol with an elite branded university, a top 500 university or top 100 business school, have pre-determined expectations about the level of services etc that will be provided by the university. If their expectations are not met they are likely to say 'this is as good as it gets'. Whereas students within this thesis are from a non elite branded, new generation

university and therefore can be considered a clean slate, where their course and course related experiences are highly likely to shape and form their behaviours.

Another likely explanation for the lack of consistency with Nguyen and LeBlanc's (2001) study which investigated the role of university image and university reputation in the formation of customer loyalty, and their findings that the university's image and reputation help explain customer loyalty, may be due to three key differences: sample population differences, different loyalty scales used to collect data, and differences in the number of variables in the studies. The first key difference is the differences in sample populations. In Nguyen and LeBlanc's (2001) research, they obtained data from a convenience sample of freshmen and seniors enrolled in a business school, with 54% of their sample being freshmen. This is the first significant difference between Nguyen and LeBlanc's (2001) study and this thesis. This thesis only focused on postgraduate Master of Business students. This population difference may indeed be a contributing factor for why this thesis did not find student loyalty to be directly influenced by students' perceptions of the importance of the university's reputation.

The second key difference is that Nguyen and LeBlanc's (2001) study used behavioural intentions items to measure loyalty. These were: first choice preference, intention to continue studying with the business school, and recommendation intentions. This is a different gauge to loyalty than the one used within this thesis. In this thesis it was Yoo and Donthu's (2001) OBE scale which was modified to a university context as outlined in Chapter 4 that was used. The loyalty scale used in this thesis drew on students' repurchase intentions, students' university and course recommendation intentions and first choice of education selection beliefs. This difference in scales is also a plausible contributing factor for the differences in predictor results.

The third key difference is that Nguyen and LeBlanc's (2001) study only gauged the relationship between loyalty and the variables: institutional image and institutional reputation, as opposed to this thesis which examined the relationship between eight variables (reputation, uncertainty avoidance, learning community, good teaching, helping, quality, value and loyalty). This difference in number of study variables is interesting and suggests that importance ratings of the university's reputation may not

be as important in explaining student loyalty when course and course related experiences are controlled for. It may be that students' course and course related experiences at non elite branded universities may be more important in explaining student loyalty.

Another possible explanation for the differences between Nguyen and LeBlanc's (2001) results and this thesis' is the non disclosed information in Nguyen and LeBlanc's (2001) research about the type of university they researched. It is unclear whether the university investigated by Nguyen and LeBlanc (2001) is elite branded or non elite branded. This thesis investigated a non elite branded, new generation university. This lack of clarification by Nguyen and LeBlanc (2001) about the status of the university they researched has produced an added difficulty in comparing their results to this thesis' findings.

### **6.2.8 Non Elite Branded Universities: Reputation and Value for Cost**

As presented earlier in section 2.4.1 in Chapter 2, it is suggested by Dodds, Monroe and Grewal (1991), Herbig and Milewicz (1997), and Kotler and Keller (2006) that there is a direct relationship between reputation and value. This direct relationship between reputation and value was not supported within this thesis. Within a university context this relationship is expected to be reflected in students' belief that their course and course related experiences are perceived as providing good value for money. There are many possible explanations for why students' perceptions of the importance of the university's reputation were not found to predict students' perceptions of value for cost.

Three plausible explanations are presented. The first plausible explanation is that the literature examining the relationship between reputation and value for cost is in a non-university context and it may not be transferable to a university setting (see: Andreassen & Lindestad 1998; Netemeyer et al. 2004). The second plausible explanation is that value for cost has been examined in an a-theoretical way through conceptual papers like that of Herbig and Milewicz (1997) and Dodds, Monroe and Grewal (1991) and not tested empirically. The third plausible explanation is that the literature also implicitly discusses value in terms of quality as illustrated in Herbig

and Milewicz's (1997) and Netemeyer et al.'s (2004) research, again there is a lack of empirical testing in the literature.

A further plausible explanation for why students' perceptions of the importance of the university's reputation does not predict student loyalty towards the university or their perceptions of value for cost may be because of the atypical sample within this thesis where the majority of the participants (60.9%) were from Asia as opposed to 33% from Australasia and the remaining 6.1% from Europe, Africa and South America, as illustrated earlier in section 5.2 in Chapter 5. The fact that over 67% of the population sampled within this thesis were international, may also be a contributing factor that influences student perceptions of the importance of the university's reputation. As this university is a non elite branded new generation university, students may have limited brand knowledge about the university. There may also be other factors that are of greater importance to this student cohort like: course flexibility, course enrolment requirements, visa entry requirements, and value for cost as discussed earlier.

### **6.2.9 Administrative Support, Academic Support and Learning Community Impact on Quality and Value for Cost**

As discussed earlier in section 2.4.2 in Chapter 2, Aaker (1991) described perceived quality as the consumer's overall evaluation of a service experience. This includes the evaluation of the overall quality or superiority of the product and or service in relation to its intended purpose and the available alternatives. It has also been claimed by Lin et al. (2000) that quality and service quality are important concepts within the current market conditions. The globalisation of the higher education sector in Australia and other countries with well developed universities is an example.

It has been identified within the quality literature domain that technical and functional quality is critical in the service industry and in consumers' perceptions of quality (Bamert & Wehrli 2005). Technical quality has been described as what the customer received from the service provider and functional quality as the manner in which the service is delivered (Gronroos 2001). It has also been identified that perceived quality cannot be considered an objective means because it measures customer perceptions

and judgements. Consumers' personalities, needs, preferences, views and opinions differ and this confirms the subjectivity of measuring quality. As discussed earlier in section 5.2.2.5 in Chapter 5, the notion of quality being subjective is supported within this thesis where quality had a mean score of 3.9 and on closer examination it was found that 32.5% of students perceived the quality of their university and its courses as somewhat high, high or very high, as opposed to 28.6% somewhat disagreeing, disagreeing or strongly disagreeing that the quality is high (see Figures 5.11 and 5.12). The remaining 38.9% of students in this sample neither agreed nor disagreed that the quality was high. It was found that the quality net promoter score for students' perceptions of the university's quality was very low with a rating of -58% (see Table 5.4). This suggests that the university is creating many more negative student word of mouth recommendations (detractors) on a day in day out basis than promoters.

As detailed earlier in section 2.4.2 in Chapter 2, the second proposition stated that students' perceptions of quality are influenced by their perceptions of a supportive university learning environment. This was subsequently operationalised into hypothesis two. Hypothesis two comprised of three sub-hypotheses which gauged the effect of students' perceptions of administrative support (helping), the university's learning community and academic support through good teaching on their perceptions of quality. It was found that postgraduate business students' perceptions of quality were influenced by their course and course related experiences of administrative support, the university's learning community, and academic support through good teaching (see section 5.4.2: Chapter 5). At a zero order level within this thesis it was found that students' perceptions of administrative support (helping) influenced their perceptions of quality and this association was highly significant (see Table 5.22). The correlation coefficient for administrative support (helping) and quality was moderate with a coefficient of 0.494 ( $R^2 = 0.244$ ), which suggested that students' perceptions of administrative support approximately explained 24.4% of the variation in students' perceptions of university quality. This has reasonably high explanatory power.

As discussed in section 5.4.1 in Chapter 5 and as illustrated in Table 5.22, students' perceptions of the university's learning community influenced their perceptions of

quality was highly significant. The correlation between the learning community and quality dimensions was also moderate to high with a coefficient of 0.563 ( $R^2 = 0.317$ ). This suggests that approximately 32% of the variation in students' perceptions of university quality is explained by their perceptions of the university's learning community. This relationship between learning community and quality has good explanatory power. Students' perceptions of academic support through good teaching influenced their perceptions of quality and were highly significant, with a moderate to high correlation with a coefficient of 0.524 ( $R^2 = 0.275$ ). Therefore it can be suggested that approximately 27.5% of the variation in quality is explained by students' perceptions of academic support through good teaching, once again having good explanatory power. All three associations were maintained within the structural equation modelling investigation (see section 5.4.2: Chapter 5). These relationships between the students' course and course related experiences are consistent with the perceived organisational support and social exchange literature (see: Eisenberger et al. 2001; Eisenberger, Fasolo & Davis-LaMastro 1990; Eisenberger et al. 1986; Orpen 1994; Rhoades & Eisenberger 2002) presented earlier in section 3.2 in Chapter 3.

Based on the perceived organisational support literature and social exchange theory discussed in section 3.2 in Chapter 3 (see: Eisenberger et al. 2001; Eisenberger, Fasolo & Davis-LaMastro 1990; Eisenberger et al. 1986; Orpen 1994; Rhoades & Eisenberger 2002), universities would be predicted to build positive perceptions within students by providing high level support services which include library services, computer and technology services, career counselling, and learning support services. Positive student perceptions will increase the alignment between student and university values. By doing so this is also likely to increase students' perceptions of the quality of their course and course related experience evaluation. The care and respect reflected by the university through its academic, administrative and support staff can also be seen to encourage students to become active members within the university's learning community. Therefore improved course and course related experiences through helpful staff are also likely to create increased levels of positive perceptions of quality from the student base.

These non-brand image factors and their relationships with the student-based brand equity perceived quality dimension are also consistent with Aaker's (1991) and Biel's

(1992) frameworks. It is consistent with Aaker's (1991) framework, in particular with consumer interpretation, processing of information as well as consumer perceptions of confidence in purchasing the product and or service and their perceived levels of satisfaction with the consumer-based brand equity dimensions. These consumer perceptions and interpretations also relate to the non-brand image factors of administrative support, the university's learning community, and academic support through good teaching. These non-brand image factors then influence students' perceptions of quality. Biel's (1992) framework also acknowledges that non-brand image factors also directly influence perceptions of consumer-based brand equity. This is consistent with the findings in this thesis, that the non-brand image factors of: students' perceptions of administrative support, the university's learning community and academic support through good teaching influence the student-based brand equity quality dimension. Biel's (1992) framework does not present a fine grained analysis on what the non-brand image factors are and what their relationships are with the components of consumer-based brand equity.

As documented in Table 5.22 in Chapter 5, this thesis found that the zero order level correlations between students' course and course related experiences and students' perceptions of value were highly significant. The correlations between value and administrative support was moderate with a correlation coefficient of 0.464 ( $R^2 = 0.215$ ), which suggests that students' perceptions of administrative support approximately explains 21.5% of the variation in students' perceptions of value for cost, which has good explanatory power. The association between value and the university's learning community was also moderate with a correlation coefficient of 0.542 ( $R^2 = 0.294$ ). Therefore it can be stated that approximately 29.4% of the variation in value is explained by students' perceptions of the university's learning community, also highlighting good explanatory power. The association between value and academic support through good teaching, like the other two course and course related experiences, was also moderate with a correlation coefficient of 0.496, which is an  $R^2$  value of 0.246. This suggests that approximately 24.6% of the variation in students' perceptions of value is explained by their perceptions of academic support through good teaching. This relationship between value and good teaching also provides good explanatory power.

## **6.2.10 Administrative Support, Academic Support and Learning Community Impact on Loyalty**

As identified earlier in section 3.2 in Chapter 3, students' course and course related experiences and their perceptions of academic, administrative and other (library/information technology) supports, and course quality is influenced by the level of connectedness between the university and its student base. Perceived organisational support in a university context has also been discussed in section 3.2 in Chapter 3 and includes challenging subject material and assessment within courses, the need for open communication, trust and cohesion between students, between students and academic staff and between students and administrative and support staff, to create a supportive educational environment, by drawing parallels from the perceived organisational support literature (see: Eisenberger et al. 2001; Eisenberger, Fasolo & Davis-LaMastro 1990; Eisenberger et al. 1986; Orpen 1994; Rhoades & Eisenberger 2002). These elements also relate to a university's community dedicated to learning and whether the university encourages citizenship behaviours from the student perspective.

Orpen (1994) and Eisenberger et al. (2001), as previously discussed in section 3.2 in Chapter 3, exchange theory is a means for predicting perceived organisational support and loyalty. This suggests that students' perceptions of the support services provided by universities may increase student attachment to the university. At the zero order correlation level, as previously presented in section 5.4.1 in Chapter 5, students' perceptions of administrative support, the university's learning community, and academic support through good teaching have moderate to high correlations which are highly significant with students' perceptions of loyalty (see Table 5.22). Students' perceptions of administrative support (helping) influence students' perceptions of loyalty with a zero order correlation coefficient of 0.519 ( $R^2 = 0.269$ ). This suggests that students' perceptions of administrative support approximately explain 27% of variation in students' perceptions of loyalty, and has relatively high explanatory power.

As discussed in section 5.4.1 and in Table 5.22 in Chapter 5, students' perceptions of the university's learning community influence loyalty with a zero order correlation

coefficient of 0.511 ( $R^2 = 0.261$ ). Therefore it can be stated that approximately 26% of the variation in students' perceptions of loyalty towards the university is explained by their perceptions of the university's learning community. The relationship between learning community and loyalty has good explanatory power. Students' perceptions of academic support through good teaching also influence loyalty towards the university, with a zero order correlation coefficient of 0.507 ( $R^2 = 0.257$ ). This suggests that students' perceptions of academic support through good teaching explain approximately 26% of the variation in their loyalty towards the university, which has good explanatory power. Therefore students' course experiences may also improve as a result of their perceptions of helpful academic and administrative supports.

The discussion of the aforementioned perceived organisational support literature, see section 3.2 of Chapter 3, which stated that student perceptions of supportive teaching and supportive administrative services are influenced by their perceptions of a supportive learning community, has led to another proposition ( $P_5$ ) which was operationalised into hypothesis five. It comprised of two sub-hypotheses which gauged the effect of students' perceptions of the university's learning community on their perceptions of helpful university staff and good teaching. Postgraduate business student perceptions of administrative support was influenced by their perceptions of the university's learning community (see section 5.4.2: Chapter 5).

At a zero order correlation level, students' perception of the university's learning community was highly significant with administrative support and academic support through good teaching, as previously discussed in section 5.4.1 and illustrated in Table 5.22. The correlation between the university's learning community and administrative support (helping) was moderate to high with a zero order correlation coefficient of 0.553 which is an  $R^2$  value of 0.305. This suggests that approximately 31% of the variation in students' perceptions of administrative support (helping) was explained by students' perceptions of the university's learning community. The learning community and helping relationship also exhibits good explanatory power. There is also a moderate to high correlation between the university's learning community and academic support through good teaching with a zero order correlation coefficient of 0.543 ( $R^2 = 0.295$ ). This suggests that students' perceptions of the

university's learning community approximately explained 30% of the variation in students' perceptions of academic support through good teaching. This suggests that the learning community and good teaching dimensions have good explanatory power. During the structural equation modelling investigation both of these relationships were maintained (see section 5.4.2: Chapter 5). These results are consistent with Smith's (2001) research on university learning communities as well as the literature in the perceived organisational support literature domain (see: Ferres, Connell & Travaglione 2004; Orpen 1994).

### **6.2.11 Uncertainty Avoidance Impact on Administrative Support, Academic Support and Learning Community**

As discussed earlier in section 5.4.1 in Chapter 5, the uncertainty avoidance culturally-anchored value orientation had highly significant correlations with administrative support (helping), academic support (good teaching), and learning community. These highly significant correlations will be revisited shortly, and is consistent with the literature in section 3.2 in Chapter 3.

As presented earlier in sections 3.2 and 3.3 in Chapter 3: it has been well documented within the literature that students who enter university have certain biases towards learning and acquiring knowledge (see: Ballard & Clanchy 1997; Biggs, J. B. 1996; Chan, D. & Drover 1997; Watkins & Biggs 2001); and that student cultural value orientations influence students' perceptions of good learning and teaching strategies respectively. When discussing the global higher education sector there does appear to be some similarities, but this appears to be superficial. A closer examination of the international higher education sector highlights that there are often dissimilar approaches to teaching and learning as illustrated previously in section 3.3 in Chapter 3. These differences are often the effect of different cultural value traditions. As previously discussed in section 3.3 in Chapter 3, Hofstede (2001) identified that teachers are highly likely to be confronted by intercultural encounters at some point in time within the education sector. He also identified that there is often a mismatch between student(s)' and teacher's cultural values and that this is a regular source of problems. An example provided earlier in section 3.3 in Chapter 3, is that within high uncertainty avoidance societies the educational process involves searching for truth,

whereas in a low uncertainty society both students and teachers prefer less structure. These cultural value differences often affect student-teacher relationships. Hofstede (2001) also stated that class composition is also a factor, where teacher dominance increases according to the share of foreign culture students as well as when there are a number of different cultures in the one class.

In this thesis it was found that the postgraduate business student population sampled from a non elite branded new generation Victorian university had a higher proportion of international student enrolments in comparison to domestic student enrolments (see section 5.2.2.3 and Figures 5.3 and 5.4: Chapter 5). It was also noted earlier that domestic students in multicultural societies like Australia share many cultural values with international students. This suggests that teacher dominance may be present within the Master of Business courses at this university. Within this study it was found that the mean score of the uncertainty avoidance culturally-anchored value orientation was 5.4. This suggested that the majority of students held relatively high uncertainty avoidance culturally-anchored value orientations, as previously noted in section 5.2.2.3 in Chapter 5.

A closer examination found that 88% of students, that is 223 students rated as having somewhat high uncertainty avoidance culturally-anchored value orientations, high uncertainty avoidance culturally-anchored values or very high uncertainty avoidance culturally-anchored value orientations. Only a mere 2.7% of students, that is 7 students rated as having somewhat low uncertainty avoidance culturally-anchored value orientations, low uncertainty avoidance culturally-anchored value orientations or very low uncertainty avoidance culturally-anchored value orientations. A total of 9.3% of students (25 students) did not rate as having either high or low uncertainty avoidance culturally-anchored value orientations (see Figures 5.3 and 5.4: Chapter 5). This is an interesting finding that over 88% of students had high uncertainty avoidance culturally-anchored value orientations because as outlined in Figure 1.2 in Chapter 1, these students are indeed price conscious consumers.

As previously discussed in section 5.4.1 in Chapter 5, at the zero order correlation level students' uncertainty avoidance culturally-anchored value orientation had a moderate correlation coefficient of 0.339 ( $R^2 = 0.115$ ) with administrative support

(helping) which was highly significant. This suggests that students' uncertainty avoidance culturally-anchored value orientation explains approximately 11.5% of variation in students' perceptions of administrative support (helping). The uncertainty avoidance culturally-anchored value orientation also had a moderate zero order correlation coefficient of 0.343 ( $R^2 = 0.118$ ) with students' perceptions of the university's learning community, which was also highly significant. Therefore it can be stated that approximately 12% of the variation in students' perceptions of the university's learning community is explained by students' uncertainty avoidance culturally-anchored value orientation. This thesis also identified that there was a weak zero order correlation coefficient of 0.246 ( $R^2 = 0.061$ ) between the uncertainty avoidance culturally-anchored value orientation and students' perceptions of academic support through good teaching, which was also highly significant. This suggests that approximately 6% of the variation in students' perceptions of academic support through good teaching is explained by students' uncertainty avoidance culturally-anchored value orientation. The relationship between uncertainty avoidance and good teaching had less explanatory power compared to uncertainty avoidance and helping and learning community respectively.

The literature discussed in section 3.3 in Chapter 3, led to the development of a further proposition ( $P_6$ ). This proposition was then operationalised into a hypothesis ( $H_6$ ), which comprised of three sub-hypotheses, which gauged the effect of students' uncertainty avoidance culturally-anchored value orientation on: administrative support (helping); the university's learning community; and academic support through good teaching. As noted earlier in section 5.4.1 in Chapter 5, at a zero order level there were highly significant correlations between the uncertainty avoidance culturally-anchored value orientation and students' course and course related experiences: administrative support (helping); the university's learning community; and academic support through good teaching, however when the structural equation modelling investigation was conducted it was found that postgraduate business students' uncertainty avoidance culturally-anchored value orientations only partially influenced their perceptions of course and course related experiences directly, as discussed in section 5.4.2 in Chapter 5. Students' uncertainty avoidance culturally-anchored value orientations only directly predicted students' perceptions of administrative support and the university's learning community.

These findings that students' uncertainty avoidance culturally-anchored value orientations influence students' perceptions of administrative support and the university's learning community is consistent with the uncertainty avoidance cultural dimension literature. Hofstede (1980; 1991; 2001) and House and Javidan (2004) stated that a society's uncertainty avoidance orientation shapes societal views and this is reinforced through society, family and the state. Societies with a high uncertainty avoidance culturally-anchored value orientation favours formal interactions with others, as well as orderly and meticulous behaviours, whilst relying on formalised policies and procedures (Sully de Luque & Javidan 2004). Formalised policies and procedures within high uncertainty avoidance societies form an outlet for acquiring help and the expectation levels of the standard of help being given (see: Hofstede 1980, 1991, 2001; House & Javidan 2004; Sully de Luque & Javidan 2004). These results are also consistent with the uncertainty avoidance cultural dimension in a higher education context as outlined above and previously in section 3.3 in Chapter 3.

Even though there is evidence in the uncertainty avoidance literature as outlined in section 3.3 in Chapter 3, there is a direct relationship between uncertainty avoidance and perceptions of academic support through good teaching. This result was also reflected in the zero order correlation analysis in this thesis where approximately 6% of the variation in students' perceptions of academic support through good teaching is explained by students' uncertainty avoidance culturally-anchored value orientation, as noted in section 5.4.1 in Chapter 5. This relationship however, was not maintained during the structural equation modelling investigation (see section 5.4.2). The most plausible explanation for why the relationship between students' uncertainty avoidance culturally-anchored value orientation and academic support through good teaching was not maintained in the structural equation modelling investigation is because this relationship is mediated by students' perceptions of the university's learning community. That is the uncertainty avoidance culturally-anchored value orientations indirectly influence students' perceptions of administrative and academic supports through their perceptions of the university's learning community.

## **6.3 Implications of the Research Questions Addressed**

Through this investigation into student-based brand equity four main questions were addressed:

1. What are the non-brand image factors (course and course related experiences) that enhance students' brand loyalty, that is, their willingness to refer the course and university to others?
2. Are the non-brand image factors (course and course related experiences) that enhance student-based brand equity (brand loyalty and quality) the same for students with different uncertainty avoidance value orientations?
3. Are the non-brand image factors (course and course related experiences) the same for the loyalty and quality domains of student-based brand equity? and
4. Do non-brand image factors (course and course related experiences) explain variation in the loyalty and quality domains of student-based brand equity even when pre-existing brand image factors like reputation importance are controlled for?

The implications for these four research questions investigated in this thesis are presented through three subsections. Subsection one discusses research questions one and three. The second subsection presents the discussion of research question two and subsection three presents the discussion on research question four.

### **6.3.1 Course and Course Related Experiences and Student-Based Brand Equity: Implications**

The first research question that this thesis examined was what course and course related experiences (non-brand image factors) influenced students' perceptions of student-based brand equity. Through this extensive investigation it was confirmed that there were both direct and indirect influences on students' perceptions of brand loyalty towards the university, which is students' willingness to refer the university and its courses to others.

One non-brand image factor, course and course related experience, which directly influenced students' perceptions of brand loyalty and was administrative support. The

relationship between the three dimensions of student-based brand equity: loyalty and quality and value for cost were also supported. As discussed in section 2.4.2 in Chapter 2, quality within this thesis has been defined as students' perceptions of university quality through the quality of courses and consistency of the university's outcomes. The findings of this thesis suggest that the higher the levels of students' perceptions of quality the greater the likelihood that these students will be willing to refer the university and its courses to others. In other words these students are promoters, as illustrated by Reichheld (2006) in section 4.6.1 in Chapter 4. The reverse also has a high likelihood of occurrence, that is, the lower students' perceive the quality of their university experience, the greater the likelihood that these students will not recommend the course and institution to others. These students who are not likely to recommend the university and its courses to others are detractors as defined by Reichheld (2006) and previously noted in section 4.6.1 in Chapter 4. Within this thesis it was the latter relationship that was true that: students low quality perceptions as detailed in section 5.2.2.5 in Chapter 5 will lead to bad word of mouth about the university and its courses. This low quality perception may also adversely affect the university's reputation, retention and growth.

Section 2.4.2 in Chapter 2 described value for cost within this thesis as the worth of the course. This thesis confirmed that students' perceptions of the university's value for cost directly influenced students' perceptions of brand loyalty: their willingness to refer the course and university to others. The direct relationship between value and loyalty suggests that the more favourable students' perceptions of the university's value for cost, the greater the likelihood that this will result in greater loyalty to the university and its courses. If this notion is correct then students will engage in positive word of mouth and referral behaviours or as Reichheld (2006) stated be promoters (see section 4.6.1: Chapter 4). It can also be speculated that the reverse is also true: low student perceptions of value is highly likely to result in low loyalty towards the university. This low value-low loyalty relationship is also likely to garner negative word of mouth and low referral behaviours when students act as detractors, see Reichheld (2006) and section 4.6.1 in Chapter 4. Detractors may also impede the university's reputation, retention and growth. The results of this thesis suggest that this non elite branded new generation university has low student loyalty as previously discussed in section 5.2.2.5 in Chapter 5.

Students' perceptions of administrative support was the only non-brand image factor, course and course related experience, that directly influenced students' loyalty to the university. This result illustrates the importance of the interactions between administrative support provided to students during the qualification certification process and students' loyalty towards the university. These results as discussed previously in section 5.2.2.4 in Chapter 5, the level of administrative support provided by the university is directly related with perceptions of loyalty and students' referral behaviours as in other service industries. This is an interesting and non hypothesised finding, as students appear to scrutinise the level of service they receive in return for their tuition fees at a similar rate to consumers in the airline and other service industries (Harris, J. & Uncles 2000). Therefore this result of administrative support and loyalty could be conceptualised as the more positive students' perceptions of the university's administrative support is highly likely to create greater loyalty towards the university. This greater university loyalty is likely to be reflected in student behaviours like positive word of mouth recommendations about the university and its courses, where students become active promoters. Indeed if students perceive low levels of service from university staff, this may yield opposite results, and create detractors (see Reiccheld (2006); section 4.6.1: Chapter 4).

As hypothesised this thesis also found that there are indirect course and course related experiences that also influence students' willingness to refer the university and its courses to others. Students' perceptions of the university's quality and administrative support (helping) are two very interesting dimensions as they are unique. Quality and administrative support both have direct and indirect affects on student loyalty levels towards the university and its courses, as illustrated earlier in section 5.4.2 in Chapter 5. This presents one example of the complex nature of the direct and indirect associations and experiences that influence students' loyalty towards the university. In this case students' willingness to refer the university and its courses to others goes beyond stand alone quality and value for cost evaluations, but indeed involves detailed evaluations and trade offs regarding the quality and value of the university's courses. Therefore it is important for universities to be aware that quality of courses and value for cost of their courses are not substitutes for one another, and that students are evaluating a total course experience in deciding whether to refer the university and its courses to others.

Students' perceptions of the university's administrative support is the other unique dimension that has both direct and indirect affects on student perceptions of loyalty towards the university and its courses (see section 5.4.2: Chapter 5). This indirect relationship between administrative support and loyalty can be interpreted as perceptions of administrative support directly related to perceptions of course quality, and it is through the direct and indirect associations of course quality to brand loyalty, that students' willingness to refer the course and university to others is influenced. The two other course and course related experiences examined within this thesis: students' perceptions of the university's learning community and academic support through good teaching also indirectly influence students' willingness to refer the university and its courses to others through their direct associations with quality. It is through the direct and indirect relationships between quality and loyalty, that loyalty perceptions are influenced. It can therefore be stated that the more favourable students' perceptions of the university's administrative support, the university's learning community, and academic support through good teaching is highly likely to result in students holding favourable perceptions of course quality. High perceptions of course quality is also highly likely to create higher levels of loyalty towards the university and its courses. This can also be thought of as creating university promoters.

Students' perceptions of quality are also directly and indirectly influenced by student evaluations of their course and course related experiences: the administrative support (helping), the learning community within the university, and academic support through good teaching, as detailed in section 5.4.2 in Chapter 5. Of these three course and course related experiences it is students' perceptions of the university's learning community that has the highest weighting, as students' perceptions about the university's learning community directly drives students' perceptions of administrative and academic support. In other words positive perceptions of the university's learning community help to garner positive perceptions of administrative and academic supports. Therefore students' perception of a university's learning community has both direct and indirect relationships with quality perceptions. These associations may be either positive or negative depending on student responses. That is, if students hold negative perceptions of the university's learning community then they are also highly likely to hold negative views on administrative and academic

supports. These negative views are also highly likely to be reflected in negative perceptions of the university's quality, which may potentially lead to low levels of loyalty towards the university. There is also the possibility of negative word of mouth about the university and its courses. In other words these students who are dissatisfied act as detractors.

However, if students had positive perceptions of the university's learning community, they are also highly likely to hold positive perceptions of administrative and academic supports. These positive perceptions of learning community and administrative and academic supports are also highly likely to be reflected in positive perceptions of the university's quality. The aforementioned relationships potentially lead to higher levels of loyalty towards the university. There is also a strong possibility that these students are promoters in that they engage in positive word of mouth recommendations about the university and its courses.

Another unexpected but interesting finding was that students' perceptions of the university's learning community directly influence students' assessment of value for cost, and through value also influence loyalty. Students' perceptions of the university's learning community seem to be an important determinant of their level of loyalty towards the university as it directly affects student evaluations of course quality and course value and through the quality and value dimensions directly influence students' loyalty. The learning community dimension also influences perceptions of loyalty indirectly through its direct associations with academic and administrative supports. This suggests that there are complex relationships between the non-brand image factors, students' course and course related experiences, which can enhance students' brand loyalty. Favourable student perceptions of the university's learning community, administrative and academic supports, course quality, and course value all have the potential to enhance students' brand loyalty towards the university and its courses. In other words students act as promoters. Similarly a negative perception of the university's learning community, administrative and academic supports is highly likely to decrease the levels of students' loyalty towards the university. This is where students detract from the university.

The non-brand image factors, the course and course related experiences identified above in relation to research question one, were the same non-brand image factors related to research question three, where the university's learning community, and administrative and academic supports all influence the quality and loyalty domains of student-based brand equity. However, their relationships with the quality and loyalty domains differ in regards to the type of relationships (direct relationships; both direct and indirect relationships; and only indirect relationships) as outlined above. This also highlights the complex evaluation framework postgraduate business students sampled within this thesis use to decide whether they are willing to refer the university and its courses to others.

### **6.3.2 Uncertainty Avoidance and Course and Course Related Experiences: Implications**

The second research question examined within this thesis was whether students' uncertainty avoidance culturally-anchored value orientations affected the non-brand image factors that enhance student-based brand equity (the quality and loyalty domains). Postgraduate business students' culturally-anchored value: uncertainty avoidance directly explained unique variation in two of the three supportive university learning environment dimensions: administrative support (helping) and learning community and indirectly influence good teaching through learning community as discussed earlier in section 5.4.2 in Chapter 5. Therefore students' uncertainty avoidance culturally-anchored value orientation was the pre-course related factor that influenced all of the supportive university learning environment dimensions: helping; learning community; and good teaching; either: directly; both directly and indirectly; or just indirectly.

The uncertainty avoidance culturally-anchored value orientation was directly related to the learning community dimension; both directly and indirectly (through learning community) related to the helping dimension; and indirectly related to the good teaching dimension through learning community. This suggests that at least for postgraduate business students, their uncertainty avoidance culturally-anchored value orientations do directly and indirectly affect their perceptions of their course and course related experiences. This uncertainty avoidance culturally-anchored value

orientation also has an indirect relationship with students' perceptions of quality and loyalty towards the university, through their course and course related experiences: the helping, learning community, and good teaching dimensions as conceptualised within this thesis in section 5.4.2 in Chapter 5. This also suggests that students' uncertainty avoidance culturally-anchored value orientation indirectly shapes students' evaluations of the student-based brand equity quality and loyalty domains, through their course and course related experiences.

### **6.3.3 Reputation and Student-Based Brand Equity: Implications**

Research question four investigated within this thesis was whether the non-brand image factors (course and course related experiences) explained variation in the loyalty and quality domains of student-based brand equity, even when pre-existing brand image factors like the importance of the university's reputation were controlled for. This study confirmed that the non-brand image factors, students' course and course related experiences explain variation in the loyalty and quality domains of student-based brand equity even when pre-existing brand image factors like reputation are controlled for. Postgraduate business students' importance ratings of their university's reputation only explained unique variation in the student-based brand equity: quality dimension directly. University reputation importance was only indirectly related to the student-based brand equity: value and loyalty dimensions through quality as illustrated earlier in section 5.4.2 in Chapter 5. Due to the direct and indirect relationships outlined above it can be stated that these are complex.

### **6.3.4 Strategies to Enhance Student-Based Brand Equity in this Non Elite Branded New Generation University: Implications**

The results presented in Chapter 5 as well as the discussion of these principal findings above, can be used to create a more effective strategy for the non elite branded, new generation university investigated within this thesis, in order for this university to maintain and or increase its market share. At the present time this non elite branded new generation Melbourne based university is not excelling at either of the three value disciplines: product/service leadership; operational excellence; or customer intimacy, identified by Treacy and Wiersema (1993; 1995; 1997) in order to remain competitive

within the organisation's industry, in this case the globalised higher education sector. It is apparent that this university is not excelling at the product/service leadership discipline as it fails to rate on the: 2006 Academic top 500 listing; 2006 Financial Times Global MBA top 100 listing; and the band 1 classification of the Australian Financial Review's MBA Boss Survey as discussed earlier in section 2.2 in Chapter 2. This university is also clearly not excelling at the operational excellence discipline as students within this thesis through their responses gave the university a negative helping net promoter score of -43% as discussed previously in section 5.2.2.4 in Chapter 5. It is also apparent that the customer intimacy discipline is also not an area where this university is excelling with negative net promoter scores for: learning community (-29%); academic support through good teaching (good teaching, -27%); quality (-58%); value (-35%); and loyalty (-43%) as outlined previously in sections 5.2.2.4 and 5.2.2.5 in Chapter 5.

Currently this non elite branded new generation Melbourne based university is not maximising its capacity to create student-based brand equity. The maximised reliability model developed during the structural equation modelling investigation explained: 51% of unique variation in quality; 61% of unique variation in value; and 77% of unique variation in loyalty (see section 5.4.2: Chapter 5). This structural model was confirmed with the validation sample, as illustrated earlier in section 5.5 in Chapter 5. The negative net promoter scores obtained by this non elite new generation Melbourne based university paints a rather grim picture at this point in time. As identified earlier it is students' perceptions of the university's learning community that drives their perceptions about administrative and academic supports.

This university's learning community net promoter score equated to -29%, which suggests these students are far from pleased with their university's learning community. This displeasure directly influences: their perceptions of administrative support; academic support; university quality; and value. These negative learning community perceptions also indirectly influence students' perceptions of quality through academic (good teaching) support, and administrative (helping) support. In turn these negative learning community views also indirectly influence students' value perceptions through quality and administrative support (helping). Therefore there is no real surprise that the net promoter scores for administrative support

(helping) is -43%; academic support (good teaching) is -27%; quality is -58%; value is -35%; and loyalty is -43%. It can be suggested that at the present time this university is maximising the level of student dissatisfaction which if not already is highly likely to result in negative word of mouth for this non elite branded, new generation university. This in turn may be very damaging for this university given the highly competitive nature of the globalised higher education sector.

The strategy suggested for this non elite branded new generation university specifically, and other non elite branded universities generally, is to adopt a customer intimacy discipline value to improve student-based brand equity. As discussed previously in section 2.2 in Chapter 2, Treacy and Wiersema (1993; 1995; 1997) described organisations that excel in the customer intimacy discipline as those that pursue long term relationships with their consumers. These organisations specialise in satisfying unique needs, which are often only identified as a result of close relationships forged with their customers. In other words they have the best solution for the customer and will provide all the support customers need to reach their goals, value or both from whatever products or services they buy (Treacy & Wiersema 1993, 1995, 1997).

As previously discussed in section 2.2 in Chapter 2, by Treacy and Wiersema (1993; 1995; 1997) customer intimacy builds bonds with the customer just like the bonds built between good neighbours. Organisations that use the customer intimacy approach are continually involved in tailoring its products and services and do so at reasonable prices. Organisations that choose a customer intimacy strategy constantly upgrade their offerings, and stay ahead of their customers' rising expectations that the organisation creates. There have been four criteria outlined by Treacy and Wiersema (1993; 1995) for the customer intimacy approach, as previously presented in section 2.2 in Chapter 2. These are: understanding customer needs and ensuring that the solution gets implemented properly; decision making powers are decentralised to employees that have close interactions with the customer; management focus on creating results for specific client groups; and that the organisation embraces a culture of specific rather than general solutions and the thriving of deep and lasting client relationships. As discussed previously in section 2.2 in Chapter 2, the customer intimacy approach is also consistent with what Kotler and Keller (2006) have

identified as the modern customer oriented organisation where managers and organisation staff regardless of their status must be personally involved in knowing, meeting and serving customers.

Therefore this non elite branded new generation university and other non elite branded universities in general, may be in a better position to compete on the global higher education sector domain by choosing to differentiate themselves from other non branded and branded universities by excelling at the customer intimacy discipline. That is non elite branded universities need to obtain a detailed understanding of their students' needs. This includes students' course and course related needs like those investigated in this thesis, which were the university's learning community, administrative and academic supports from the student perspective. Through this identification of students' needs and expectations, it is just as important for non elite branded universities to treat students as individuals and provide tailored solutions that are properly implemented in a timely manner. In order for university staff to tailor a solution and implement it in a timely manner, the university needs to delegate decision making powers to lower level staff. By empowering staff that are at the front line level with students to tailor solutions and implement them in a timely manner helps build loyalty back to the university and increases student satisfaction levels.

This non elite branded new generation university specifically and other non elite branded universities generally, need to also focus on creating results for certain student groups. That is targeting specific student cohort categorisations, like the three uncertainty cultural states identified in sections 1.3 in Chapter 1 and 3.3 in Chapter 3, in order to develop different strategies based on that student cohort's needs and expectations. The first uncertainty cultural state: that is students that have a no risk environment preference, otherwise known as the price conscious consumer justifies one plausible student categorisation. As discussed earlier in this chapter this thesis found that the majority of students sampled within this thesis held high uncertainty avoidance culturally-anchored value orientations, meaning that the majority of these students were indeed price conscious consumers.

Therefore for the university studied in within this thesis, it is the price conscious consumer category that is of paramount importance. The other two plausible student categories identified within this thesis were uncertainty avoidance cultural state two (students with a moderate risk environment preference that have a tendency to focus on the present) and uncertainty avoidance cultural state three (students who are uncertainty accepting). This non elite branded new generation university specifically, and other non elite branded universities generally, are also encouraged to develop and embrace a specific solution culture with a focus on deep long lasting university-student relationships, to garner student-based brand equity towards their universities to create a competitive advantage in this highly competitive global market.

The future for this university is not as uncertain as it seems. Despite the fact that this non elite branded new generation university has negative course and course related net promoter scores, which in turn inflated the negativity of the student-based brand equity net promoter scores is due to the fact that: a great deal of students (an average of 33%) are sitting at the borderline of detractors and passives; and that there is an equally high number (an average of 29%) of students who are in the passives category. Even if this non elite branded new generation university aims to shift 50% of its passives into promoters and 50% of its neither agree nor disagree detractors into passives it will provide an improvement in net promoter scores by between 50 and 80% resulting in low negative to low positive net promoter scores.

Therefore it is highly recommended that the non elite branded new generation university within this study attempts to excel at a customer intimacy discipline strategy by focusing on the needs and expectations of their price conscious students. By tailoring their learning community offerings and administrative and academic supports to this price conscious student market, then this non elite branded new generation university based in Melbourne Australia, will be able to garner greater student-based brand equity which will encourage students to promote this university and its courses to others within their networks locally and internationally.

In a more general scope, all non elite branded universities may also increase the level of student-based brand equity by understanding their students' needs and expectations

and entwining these needs and expectations into their learning community, academic support, and administrative support; offerings.

## **6.4 Study Limitations and Future Research Directions**

This thesis was a cross-sectional study focusing on postgraduate business students' perceptions of loyalty and quality towards their non elite branded new generation university in an Australian setting. Longitudinal studies are needed. These results need to be used with caution if generalised across to other postgraduate or undergraduate students studying in an Australian setting or abroad. Similarly, these results from postgraduate business students studying in Australia may not be representative in a non-Australian setting. Caution is also needed in generalising these results to elite branded universities.

Areas for future research include testing the replicability of these results across other non elite branded universities. Other settings that this thesis did not examine in which may be plausible extensions to this thesis include testing the antecedents to student-based brand equity determined within this thesis with postgraduate students studying business and non business disciplines in both an elite and non elite branded Australian and International Universities. A further set of empirical research questions that needs to be undertaken include: how does identification with a non elite reputation university change the retrospective importance placed on reputation as a selection criterion? What are the actual selection criteria of students who ultimately choose a non elite branded university with relatively weak brand associations? How do students' perceptions of quality and value for cost course and course related experiences change the retrospective importance placed on reputation as a selection criterion? How do students' perceptions of loyalty change their retrospective importance placed on reputation as a selection criterion? What do students see as: an enriching learning community and adequate administrative and academic supports?

## 6.5 Conclusion

It has been identified within this thesis that in a non elite branded new generation university students' perceptions of their course and course related experiences do directly and indirectly influence their perceptions of student-based brand equity. To a lesser degree it was found that student university reputation importance ratings and their uncertainty avoidance culturally-anchored value orientations directly and indirectly influenced students' course and course related experiences, and that indirectly through these course and course related experiences influenced students' perceptions of student-based brand equity.

The implications for the management and development of student-based brand equity in non elite branded universities were also addressed within this thesis. It was recommended that non elite branded universities, like the one examined within this thesis, differentiate themselves from elite branded universities by excelling in the customer intimacy discipline where by course and course related experiences are tailored to specific student cohorts. That is, understanding student needs and expectations and continually updating and improving offerings to students, as well as tailoring solutions to individual student needs. This customer intimacy discipline strategy is deemed to be a more effective means for non elite branded universities to compete with elite branded ones as well as a way for non elite branded universities to enhance their student-based brand equity.

Specifically non elite branded universities have a choice in order to improve their competitiveness. They have the opportunity to excel in one of three value disciplines: product/service leadership; operational excellence; or customer intimacy. The non elite branded new generation university investigated within this thesis may have not reached excellence at any one of these disciplines to date. However it is also imperative to note that although non elite branded universities, like their elite branded counterparts need to excel at one discipline and remain good at the other two disciplines. By doing so non elite branded and elite branded universities, like any other business institution, will be in a better position to satisfy its clients and remain in business. As previously stated by Athiyaman (2000, p. 50):

*...a prospective student comes to know about a higher education institution and/or forms expectations about the quality of service he/she would receive from the institution, from others who have attended and/or are attending the institution, parents, friends, relatives etc...Managing service quality is essential to induce potential students to enter or enrol in a university. Once they are enrolled, it is essential to manage each service encounter in a manner that will result in student satisfaction overtime, in positive word-of-mouth recommendations about the university.*

Non elite branded universities by choosing to excel at a customer intimacy discipline strategy will be in a better position to enhance students' course and course related experiences by meeting their students' needs and expectations. Meeting students' needs and expectations is highly likely to result in enhancing students' perceptions of quality which will lead to improved perceptions of value and loyalty. In other words it increases students' willingness to refer the university and courses to others. This is also highly likely to be reflected in increasing numbers of students who act as promoters to the university by engaging in positive word of mouth recommendations. Elite branded universities may also decide to improve their current customer intimacy practices by choosing to better understand their student needs and expectations. As Treacy & Wiersema (1995, p. 94) state: *...the customer intimate company makes a business of knowing the people it sells to and the products and services they need.* The aims of this thesis was first to enable managers within non elite branded universities to better understand what steps are needed to enhance student-based brand equity and secondly, to contribute to the understanding of how consumer-based brand equity is created and maintained within a unique service environment of a university.

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# Appendices

## Appendix A: Measurement Fit Model Method

### A.1 Measurement Fit Model Analyses

This section provides the details of the process conducted to obtain the measurement fit values for the scales used within this thesis. This appendix has two sections. Section one details the formulae previously outlined in the methodology section used to obtain the measurement fit values, and section two presents the results and the way they were obtained.

#### A.1.1 Measurement Fit Model Formulae

As previously outlined in the methodology section, the Measurement Fit model as presented by Hair et al. (1998), equations one and two below outline how the construct reliability and variance extracted are calculated respectively. The recommended level for the reliability construct is 0.70 and the variance extracted is 0.50 (Hair et al. 1998).

Equation 1:

$$\text{Construct reliability} = \frac{(\Sigma \text{ standardised loadings})^2}{(\Sigma \text{ standardised loadings})^2 + \Sigma \text{ indicator measurement error}}$$

Equation 2:

$$\text{Variance extracted} = \frac{\Sigma \text{ squared standardised loadings}}{\Sigma \text{ squared standardised loadings} + \Sigma \text{ indicator measurement error}}$$

The regression coefficient ( $\lambda$ ) and the measurement error variances ( $\theta$ ) of the measurement model were calculated by using equations three and four below:

$$\text{Equation 3: } \lambda = \sqrt{\alpha}$$

Equation 4:  $\theta = 1 - \alpha$

Where:  $\alpha$  is the Cronbach's alpha for the construct.

### A.1.2 Measurement Fit Model Results

Table A.1.2a below outlines how the measurement fit model values were calculated in excel. The Cronbach's alpha was calculated in SPSS and then entered into the excel spreadsheet, as was the standard deviation for each of the scales. This table also presents how the lambda and theta values were calculated. Table A.1.2b also presented below presents the final figures that were generated through the formulae in Table A.1.2a.

**Table A.1.2a: Measurement Fit Model Calculations**

	A	B	C	D	E	F	G	H
1	<b>Variable Name</b>	$\alpha$	$\text{sqr}(\alpha)$	$1-\alpha$	$\text{SD}(\sigma)$	$\sigma*\sigma$	$\lambda$	$\theta$
2	Reputation	-----	=SQRT(B2)	=1-B2	1.5600	=(E2)^2	=E2*C2	=F2*D2
3	Uncertainty Avoidance	0.8542	=SQRT(B3)	=1-B3	0.9642	=(E3)^2	=E3*C3	=F3*D3
4	Learning Community	0.8390	=SQRT(B4)	=1-B4	1.0784	=(E4)^2	=E4*C4	=F4*D4
5	Good Teaching	0.8480	=SQRT(B5)	=1-B5	1.1550	=(E5)^2	=E5*C5	=F5*D5
6	Helping	0.9019	=SQRT(B6)	=1-B6	1.1218	=(E6)^2	=E6*C6	=F6*D6
7	Quality	0.9105	=SQRT(B7)	=1-B7	1.2539	=(E7)^2	=E7*C7	=F7*D7
8	Value	0.8973	=SQRT(B8)	=1-B8	1.3047	=(E8)^2	=E8*C8	=F8*D8
9	Loyalty	0.8303	=SQRT(B9)	=1-B9	1.2672	=(E9)^2	=E9*C9	=F9*D9

**Table A.1.2b: Measurement Fit Model Values**

Variable Name	$\alpha$	$\text{sqr}(\alpha)$	$1-\alpha$	$\text{SD}(\sigma)$	$\sigma*\sigma$	$\lambda$	$\theta$
Reputation	-----	0.000000000	1.0000	1.5600	2.43360000	0.000	2.434
Uncertainty Avoidance	0.8542	0.924229409	0.1458	0.9642	0.92968164	0.891	0.136
Learning Community	0.8390	0.915969432	0.1610	1.0784	1.16294656	0.988	0.187
Good Teaching	0.8480	0.920869155	0.1520	1.1550	1.33402500	1.064	0.203
Helping	0.9019	0.949684158	0.0981	1.1218	1.25843524	1.065	0.123
Quality	0.9105	0.954201237	0.0895	1.2539	1.57226521	1.196	0.141
Value	0.8973	0.947259204	0.1027	1.3047	1.70224209	1.236	0.175
Loyalty	0.8303	0.911207989	0.1697	1.2672	1.60579584	1.155	0.273

# **Appendix B: Maximised Reliability Method**

## **B.1 Maximised Reliability Method Analyses**

This section provides the details of the process conducted to obtain the maximised reliability values for the scales used within this thesis. This appendix is presented in two broad sections. The first details the series of steps taken to obtain the maximised reliability statistics. The second presents the congeneric factor analysis for each of the scales used within this study.

### **B.1.1 Statistical Procedures for Congeneric Models**

There are a series of steps that were followed in order to obtain the maximised reliability statistics that have been reported within the Results section of this thesis. These steps are outlined below.

**Step 1: Fit the Model**

**Step 2: Compute a composite using the factor score weights by:**

- (a) Sum the factor scores regression weights
- (b) Divide each factor score weight by the total to get new values
- (c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

**Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record the Standard Deviation and the Variance.**

**Step 4: Calculate the reliability by:**

- (a) Finding the implied covariance matrix from the AMOS print out and construct a matrix
- (b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix
- (c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector
- (d) Run the syntax window and keep a record of the reliability

**Step 5: Calculate the factor loading and error variance by:**

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.

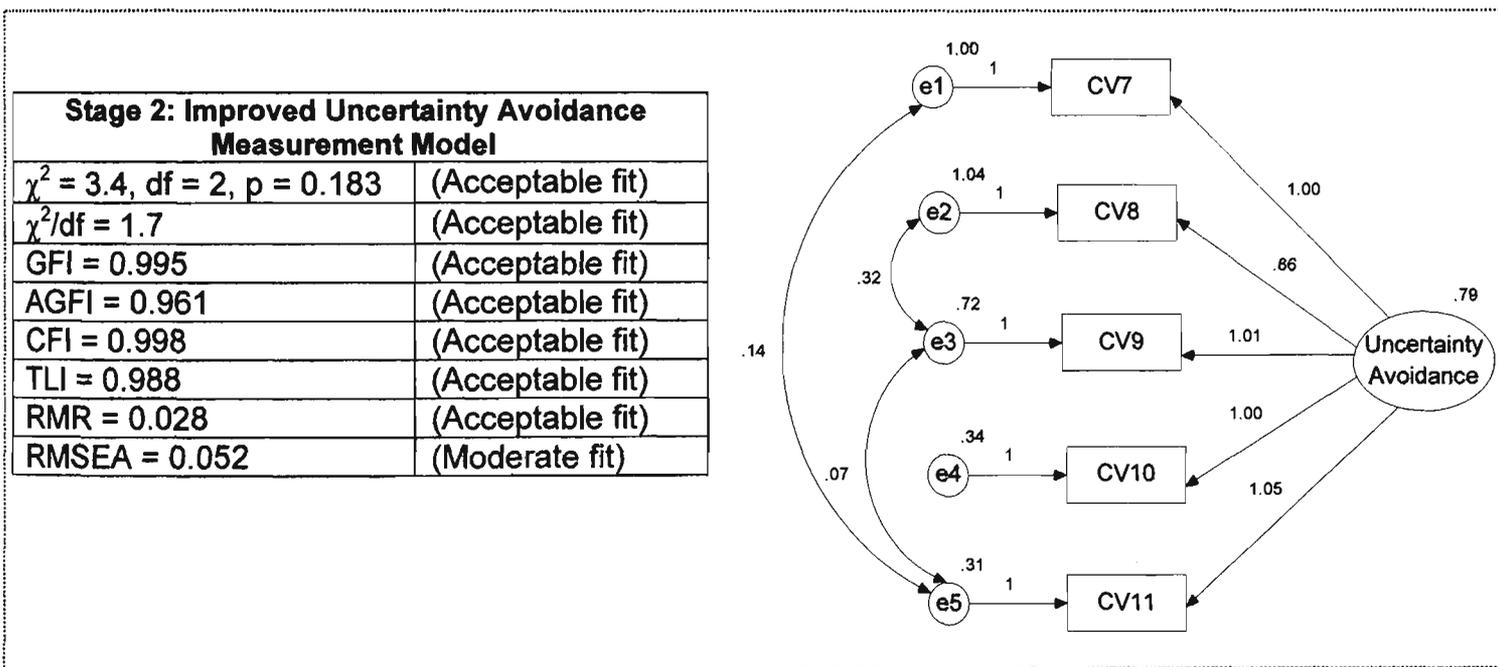
## B.1.2 Congeneric Factor Analyses

This section is divided into seven sub-sections. Each sub-section presents the analysis conducted to retrieve the maximised reliability values.

### B.1.2.1 Uncertainty Avoidance

#### B.1.2.1.1 Step 1: Fit the Model

The model was fitted.



#### B.1.2.1.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
CV7	0.130	0.881
CV8	0.025	
CV9	0.135	
CV10	0.233	
CV11	0.358	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
CV7	0.130	0.881	= 0.130/0.881 = 0.14756	1
CV8	0.025		= 0.025/0.881 = 0.0284	
CV9	0.135		= 0.135/0.881 = 0.15323	
CV10	0.233		= 0.233/0.881 = 0.26446	
CV11	0.358		= 0.358/0.881 = 0.40635	

(c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE UNCERTAINTY = cv7\*0.14756+cv8\*0.0284+cv9\*0.15323+cv10\*0.26446+cv11\*0.40635.  
EXECUTE.

B.1.2.1.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Uncertainty Avoidance Composite	Statistical Values
Number	255
Mean	5.4099
Standard Deviation	0.9594
Variance	0.9205
Minimum	1
Maximum	7

B.1.2.1.4 Step 4: Calculate the reliability by:

(a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates					
	CV11	CV10	CV9	CV8	CV7
CV11	1.192	0.837	0.776	0.718	0.695
CV10	0.837	1.137	0.803	0.683	0.793
CV9	0.776	0.803	1.535	1.005	0.801
CV8	0.718	0.683	1.005	1.623	0.681
CV7	0.695	0.793	0.801	0.681	1.792

(b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	0.791	0.148	5.362	0
CV11	0.311	0.067	4.619	0
CV10	0.342	0.056	6.126	0
CV9	0.723	0.088	8.217	0
CV8	1.037	0.100	10.322	0
CV7	1.000	0.111	9.031	0

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
CV11	0.40635
CV10	0.26446
CV9	0.15323
CV8	0.02840
CV7	0.14756

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={1.192,0.837,0.776,0.718,0.695;
           0.837,1.137,0.803,0.683,0.793;
           0.776,0.803,1.535,1.005,0.801;
           0.718,0.683,1.005,1.623,0.681;
           0.695,0.793,0.801,0.681,1.792}.
```

```
compute td={0.311,0.000,0.000,0.000,0.000;
            0.000,0.342,0.000,0.000,0.000;
            0.000,0.000,0.723,0.000,0.000;
            0.000,0.000,0.000,1.037,0.000;
            0.000,0.000,0.000,0.000,1.000}.
```

```
compute wfs={0.406,0.264,0.153,0.028,0.148}.
```

```
compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
```

```
print relfs.
```

```
END MATRIX.
```

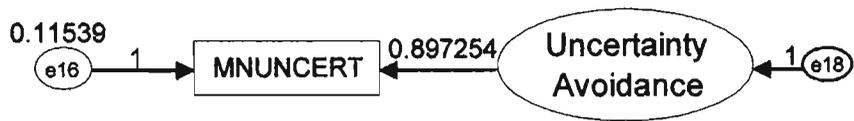
#### B.1.2.1.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	<b>Composite</b>	<b>Variance</b>	<b>Standard Deviation</b>	<b>Reliability</b>	$\lambda$ <b>Calculation</b>	$\lambda$ <b>Result</b>	$\theta\delta$ <b>Calculation</b>	$\theta\delta$ <b>Result</b>
2	Uncertainty Avoidance	0.9205	0.9594	0.874644654	=C2*SQRT(D2)	0.897254	=B2*(1-D2)	0.11539

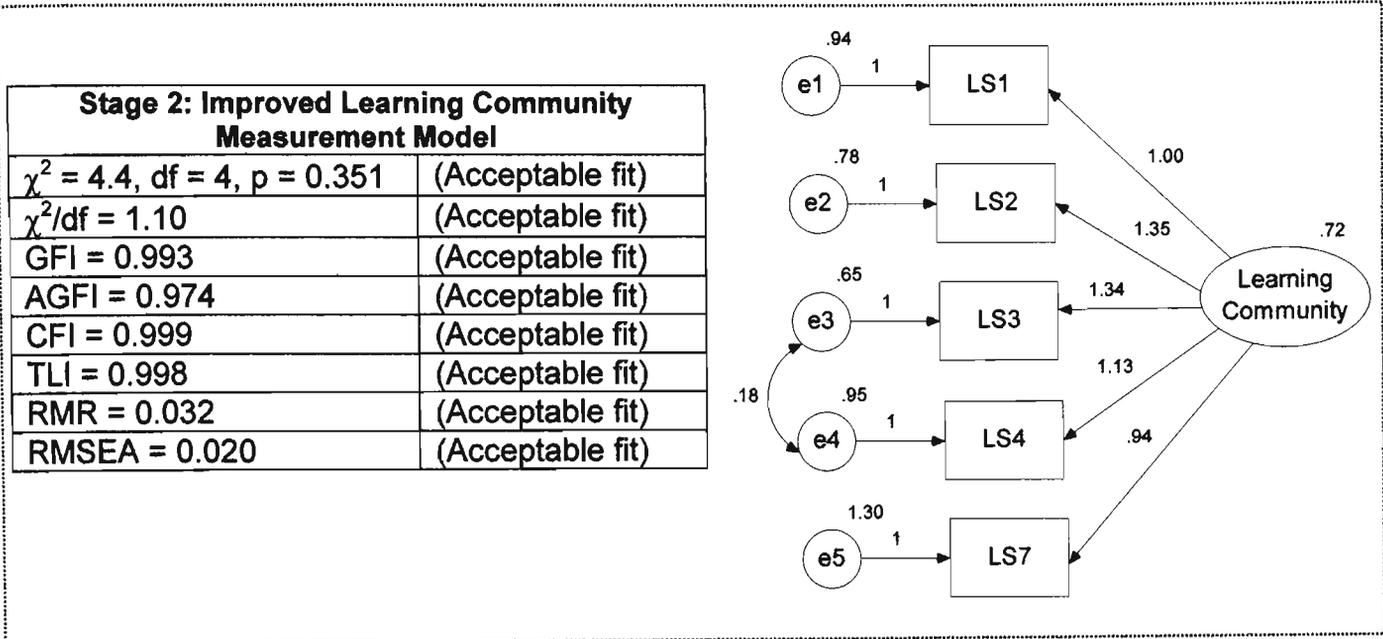
B.1.2.1.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.



## B.1.2.2 Learning Community

### B.1.2.2.1 Step 1: Fit the Model

The model was fitted.



### B.1.2.2.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
LS1	0.120	0.698
LS2	0.196	
LS3	0.207	
LS4	0.094	
LS7	0.081	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
LS1	0.120	0.698	$= 0.120/0.698$ $= 0.17192$	1
LS2	0.196		$= 0.196/0.698$ $= 0.28080$	
LS3	0.207		$= 0.207/0.698$ $= 0.29656$	
LS4	0.094		$= 0.094/0.698$ $= 0.13467$	
LS7	0.081		$= 0.081/0.698$ $= 0.11605$	

- (c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE LEARNING COMM = ls1\*0.17192+ls2\*0.28080+ls3\*0.29656+ls4\*0.13467+ls7\*0.11605.  
EXECUTE.

B.1.2.2.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Learning Community Composite	Statistical Values
Number	255
Mean	4.4743
Standard Deviation	1.1202
Variance	1.2548
Minimum	1
Maximum	7

B.1.2.2.4 Step 4: Calculate the reliability by:

- (a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates					
	LS7	LS4	LS3	LS2	LS1
LS7	1.934	0.761	0.907	0.910	0.676
LS4	0.761	1.868	1.275	1.095	0.813
LS3	0.907	1.275	1.951	1.305	0.969
LS2	0.910	1.095	1.305	2.084	0.972
LS1	0.676	0.813	0.969	0.972	1.664

- (b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	0.722	0.132	5.457	0
LS7	1.302	0.127	10.217	0
LS4	0.952	0.115	8.264	0
LS3	0.650	0.104	6.250	0
LS2	0.775	0.108	7.157	0
LS1	0.942	0.098	9.569	0

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
LS7	0.11605
LS4	0.13467
LS3	0.29656
LS2	0.28080
LS1	0.17192

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={1.934,0.761,0.907,0.910,0.676;
          0.761,1.868,1.275,1.095,0.813;
          0.907,1.275,1.951,1.305,0.969;
          0.910,1.095,1.305,2.084,0.972;
          0.676,0.813,0.969,0.972,1.664}.
```

```
compute td={1.302,0.000,0.000,0.000,0.000;
           0.000,0.952,0.000,0.000,0.000;
           0.000,0.000,0.650,0.000,0.000;
           0.000,0.000,0.000,0.775,0.000;
           0.000,0.000,0.000,0.000,0.942}.
```

```
compute wfs={0.116,0.135,0.296,0.281,0.172}.
```

```
compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
```

```
print relfs.
```

```
END MATRIX.
```

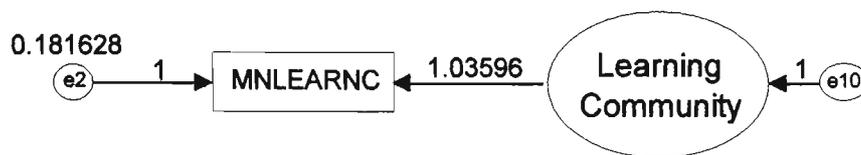
#### B.1.2.2.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Learning Community	1.2548	1.1202	0.8552534736	=C2*SQRT(D2)	1.03596	=B2*(1-D2)	0.181628

B.1.2.2.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.

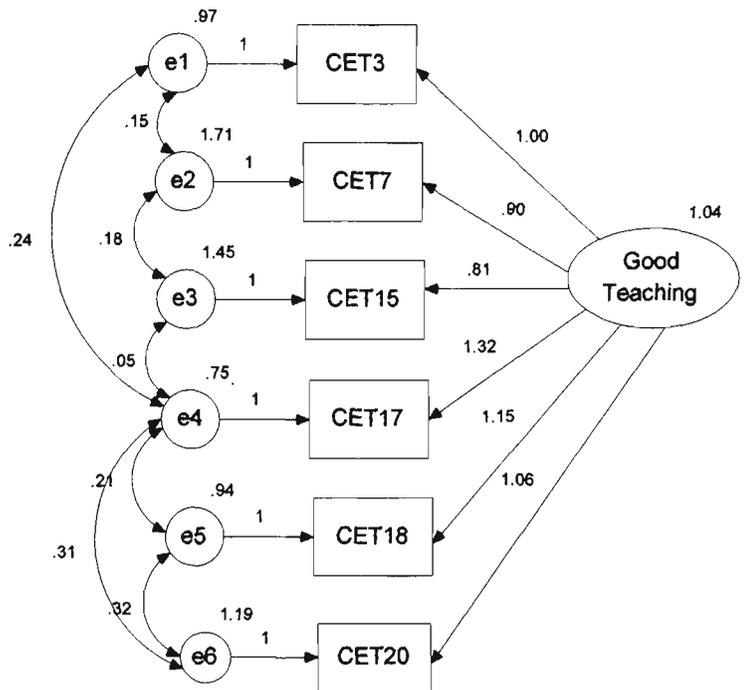


### B.1.2.3 Good Teaching

#### B.1.2.3.1 Step 1: Fit the Model

The model was fitted.

Stage 2: Improved Good Teaching Measurement Model	
$\chi^2 = 2.3, df = 2, p = 0.313$	(Acceptable fit)
$\chi^2/df = 1.16$	(Acceptable fit)
GFI = 0.997	(Acceptable fit)
AGFI = 0.968	(Acceptable fit)
CFI = 0.999	(Acceptable fit)
TLI = 0.996	(Acceptable fit)
RMR = 0.022	(Acceptable fit)
RMSEA = 0.025	(Acceptable fit)



#### B.1.2.3.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
CET3	0.165	0.796
CET7	0.030	
CET15	0.038	
CET17	0.301	
CET18	0.139	
CET20	0.123	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
CET3	0.165	0.796	= 0.165/0.796 = 0.20729	1
CET7	0.030		= 0.030/0.796 = 0.03769	
CET15	0.038		= 0.038/0.796 = 0.04774	
CET17	0.301		= 0.301/0.796 = 0.37814	
CET18	0.139		= 0.139/0.796 = 0.17462	
CET20	0.123		= 0.123/0.796 = 0.15452	

(c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE GD TEACH = cet3\*0.20729+cet7\*0.03769+cet15\*0.04774+cet17\*0.37814+cet18\*0.17462+cet20\*0.15452.  
EXECUTE.

B.1.2.3.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Good Teaching Composite	Statistical Values
Number	255
Mean	4.4167
Standard Deviation	1.2265
Variance	1.5044
Minimum	1.05
Maximum	6.76

**B.1.2.3.4 Step 4: Calculate the reliability by:**

(a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates						
	CET20	CET18	CET17	CET15	CET7	CET3
CET20	2.374	1.591	1.158	0.897	0.999	1.109
CET18	1.591	2.310	1.374	0.968	1.078	1.196
CET17	1.158	1.374	2.574	1.162	1.242	1.141
CET15	0.897	0.968	1.162	2.127	0.939	0.842
CET7	0.999	1.078	1.242	0.939	2.554	1.085
CET3	1.109	1.196	1.141	0.842	1.085	2.007

(b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	1.041	0.199	5.233	0.000
CET20	1.194	0.191	6.236	0.000
CET18	0.936	0.190	4.935	0.000
CET17	0.750	0.412	1.820	0.069
CET15	1.445	0.152	9.537	0.000
CET7	1.708	0.206	8.312	0.000
CET3	0.966	0.150	6.427	0.000

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
CET20	0.15452
CET18	0.17462
CET17	0.37814
CET15	0.04774
CET7	0.03769
CET3	0.20729

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={2.374,1.591,1.158,0.897,0.999,1.109;
1.591,2.310,1.374,0.968,1.078,1.196;
1.158,1.374,2.574,1.162,1.242,1.141;
0.897,0.968,1.162,2.127,0.939,0.842;
0.999,1.078,1.242,0.939,2.554,1.085;
1.109,1.196,1.141,0.842,1.085,2.007}.
```

```

compute td={1.194,0.000,0.000,0.000,0.000,0.000;
0.000,0.936,0.000,0.000,0.000,0.000;
0.000,0.000,0.750,0.000,0.000,0.000;
0.000,0.000,0.000,1.445,0.000,0.000;
0.000,0.000,0.000,0.000,1.708,0.000;
0.000,0.000,0.000,0.000,0.000,0.966}.

```

```

compute wfs={0.154,0.175,0.378,0.048,0.038,0.207}.

```

```

compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
print relfs.
END MATRIX.

```

**B.1.2.3.5 Step 5: Calculate the factor loading and error variance by:**

- (a) Calculate the factor loading using the formula:  $\lambda = \sigma \sqrt{\alpha}$
- (b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Good Teaching	1.5044	1.2265	0.8589526058	=C2*SQRT(D2)	1.136716	=B2*(1-D2)	0.212192

**B.1.2.2.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.**



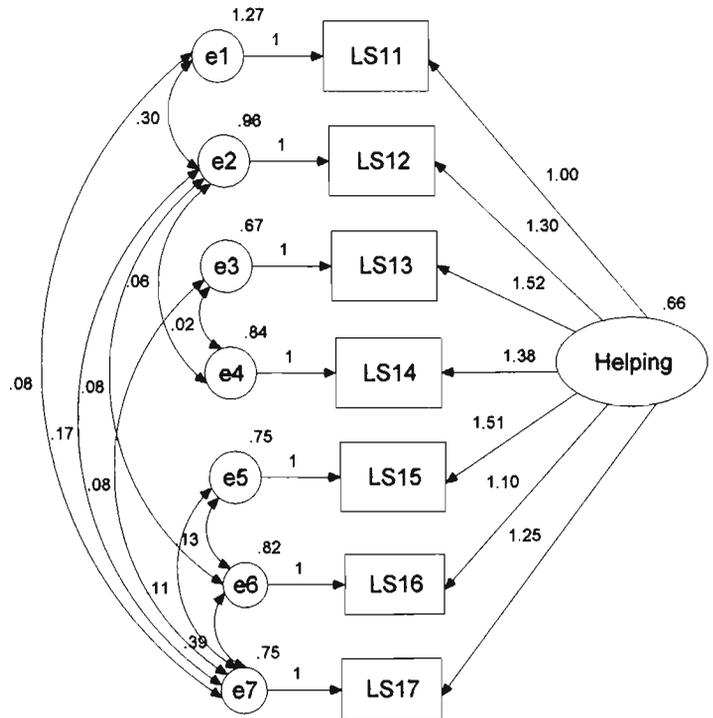
## B.1.2.4 Helping

### B.1.2.4.1 Step 1: Fit the Model

The model was fitted.

**Stage 2: Improved Helping Measurement Model**

$\chi^2 = 4.3, df = 4, p = 0.367$	(Acceptable fit)
$\chi^2/df = 1.07$	(Acceptable fit)
GFI = 0.995	(Acceptable fit)
AGFI = 0.965	(Acceptable fit)
CFI = 1	(Acceptable fit)
TLI = 0.998	(Acceptable fit)
RMR = 0.025	(Acceptable fit)
RMSEA = 0.017	(Acceptable fit)



### B.1.2.4.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
LS11	0.020	0.652
LS12	0.101	
LS13	0.168	
LS14	0.106	
LS15	0.113	
LS16	0.023	
LS17	0.121	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
LS11	0.020	0.652	= 0.020/0.652 = 0.03067	1
LS12	0.101		= 0.101/0.652 = 0.15491	
LS13	0.168		= 0.168/0.652 = 0.25767	
LS14	0.106		= 0.106/0.652 = 0.16258	
LS15	0.113		= 0.113/0.652 = 0.17331	
LS16	0.023		= 0.023/0.652 = 0.03528	
LS17	0.121		= 0.121/0.652 = 0.18558	

(c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

```
COMPUTE HELPING = ls11*0.03067+ls12*0.15491+ls13*0.25767+ls14*0.16258+ls15*0.17331+ls16*0.03528+ls17*0.18558.
EXECUTE.
```

B.1.2.4.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Helping Composite	Statistical Values
Number	255
Mean	4.2489
Standard Deviation	1.1831
Variance	1.3996
Minimum	1
Maximum	6.81

**B.1.2.4.4 Step 4: Calculate the reliability by:**

- (a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

<b>Implied Covariance - Estimates</b>							
	LS17	LS16	LS15	LS14	LS13	LS12	LS11
LS17	1.773	1.293	1.349	1.129	1.173	0.894	0.904
LS16	1.293	1.615	1.218	0.992	1.098	0.861	0.721
LS15	1.349	1.218	2.259	1.370	1.517	1.294	0.996
LS14	1.129	0.992	1.370	2.082	1.356	1.232	0.905
LS13	1.173	1.098	1.517	1.356	2.195	1.301	1.002
LS12	0.894	0.861	1.294	1.232	1.301	2.066	1.159
LS11	0.904	0.721	0.996	0.905	1.002	1.159	1.933

- (b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

<b>Variances</b>				
	Estimate	S.E.	C.R.	P
F1	0.658	0.137	4.791	0
LS17	0.749	0.119	6.270	0
LS16	0.824	0.095	8.688	0
LS15	0.750	0.106	7.050	0
LS14	0.838	0.118	7.080	0
LS13	0.670	0.105	6.404	0
LS12	0.956	0.108	8.819	0
LS11	1.275	0.123	10.393	0

- (c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

<b>Items</b>	<b>Re-calibrated factor score weights</b>
LS17	0.18558
LS16	0.03528
LS15	0.17331
LS14	0.16258
LS13	0.25767
LS12	0.15491
LS11	0.03067

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={1.773,1.293,1.349,1.129,1.173,0.894,0.904;
1.293,1.615,1.218,0.992,1.098,0.861,0.721;
1.349,1.218,2.259,1.370,1.517,1.294,0.996;
1.129,0.992,1.370,2.082,1.356,1.232,0.905;
1.173,1.098,1.517,1.356,2.195,1.301,1.002;
0.894,0.861,1.294,1.232,1.301,2.066,1.159;
0.904,0.721,0.996,0.905,1.002,1.159,1.933}.
```

```
compute td={0.749,0.000,0.000,0.000,0.000,0.000,0.000;
0.000,0.824,0.000,0.000,0.000,0.000,0.000;
0.000,0.000,0.750,0.000,0.000,0.000,0.000;
0.000,0.000,0.000,0.838,0.000,0.000,0.000;
0.000,0.000,0.000,0.000,0.670,0.000,0.000;
0.000,0.000,0.000,0.000,0.000,0.956,0.000;
0.000,0.000,0.000,0.000,0.000,0.000,1.275}.
```

```
compute wfs={0.186,0.035,0.173,0.162,0.258,0.155,0.031}.
```

```
compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
```

```
print relfs.
```

```
END MATRIX.
```

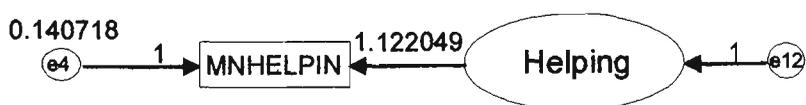
B.1.2.4.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Helping	1.3996	1.1831	0.8994581911	=C2*SQRT(D2)	1.122049	=B2*(1-D2)	0.140718

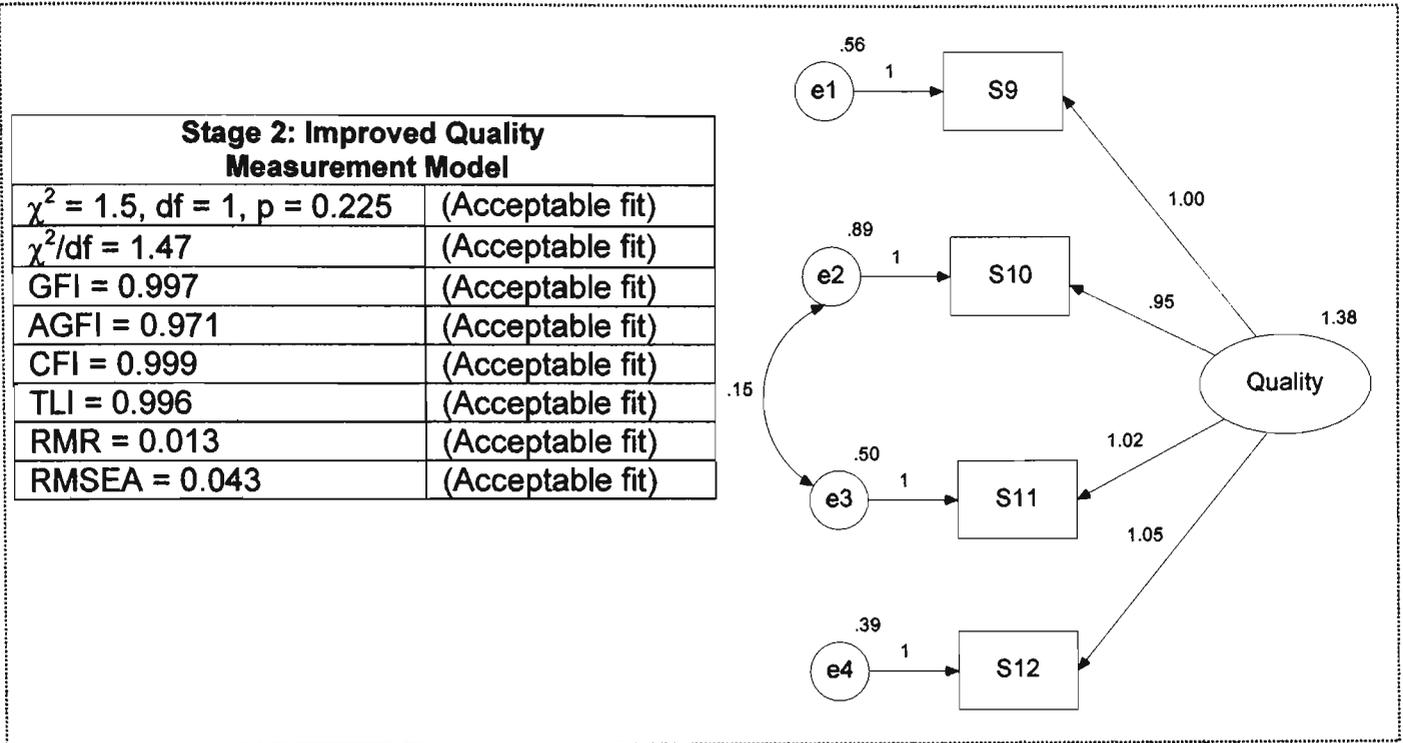
B.1.2.4.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.



## B.1.2.5 Quality

### B.1.2.5.1 Step 1: Fit the Model

The model was fitted.



### B.1.2.5.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
S9	0.226	0.89
S10	0.094	
S11	0.230	
S12	0.340	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
S9	0.226	0.89	= 0.226/0.89 = 0.25393	1
S10	0.094		= 0.094/0.89 = 0.10562	
S11	0.230		= 0.230/0.89 = 0.25843	
S12	0.340		= 0.340/0.89 = 0.38202	

- (c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE QUALITY = s9\*0.25393+s10\*0.10562+s11\*0.25843+s12\*0.38202.  
EXECUTE.

B.1.2.5.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Quality Composite	Statistical Values
Number	255
Mean	3.9377
Standard Deviation	1.2596
Variance	1.5866
Minimum	1
Maximum	7

B.1.2.5.4 Step 4: Calculate the reliability by:

- (a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates				
	S12	S11	S10	S9
S12	1.918	1.486	1.373	1.452
S11	1.486	1.942	1.488	1.411
S10	1.373	1.488	2.118	1.304
S9	1.452	1.411	1.304	1.936

- (b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	1.379	0.171	8.067	0
S12	0.389	0.062	6.276	0
S11	0.497	0.068	7.301	0
S10	0.886	0.098	9.072	0
S9	0.557	0.068	8.216	0

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
S12	0.38202
S11	0.25843
S10	0.10562
S9	0.25393

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

compute s={1.918,1.486,1.373,1.452;  
1.486,1.942,1.488,1.411;  
1.373,1.488,2.118,1.304;  
1.452,1.411,1.304,1.936}.

compute td={0.389,0.000,0.000,0.000;  
0.000,0.497,0.000,0.000;  
0.000,0.000,0.886,0.000;  
0.000,0.000,0.000,0.557}.

compute wfs={0.382,0.258,0.106,0.254}.

compute relfs=(wfs\*(s-td)\*TRANSPOS(wfs))/(wfs\*s\*TRANSPOS(wfs)).  
print relfs.  
END MATRIX.

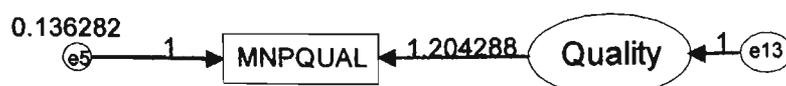
B.1.2.5.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Quality	1.5866	1.2596	0.9141042567	=C2*SQRT(D2)	1.204288	=B2*(1-D2)	0.136282

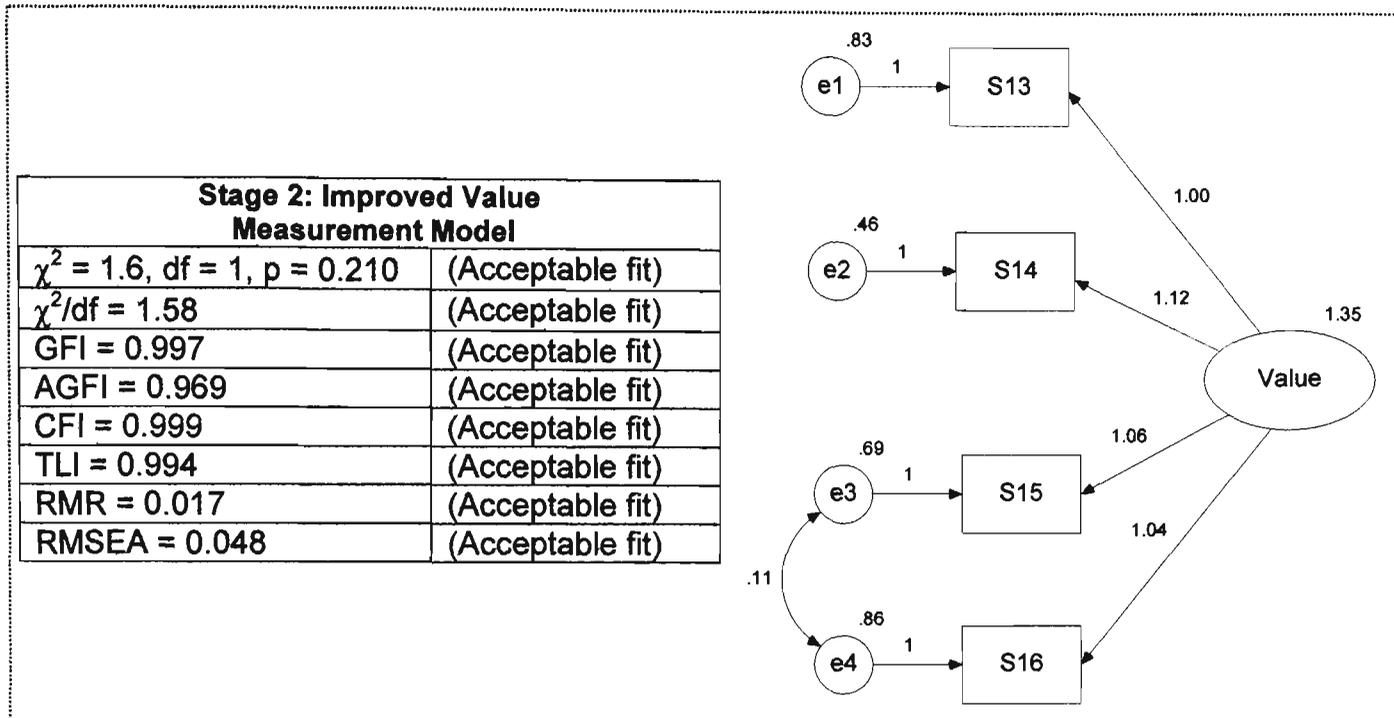
B.1.2.5.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.



## B.1.2.6 Value

### B.1.2.6.1 Step 1: Fit the Model

The model was fitted.



### B.1.2.6.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
S13	0.168	0.838
S14	0.336	
S15	0.191	
S16	0.143	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
S13	0.168	0.838	= 0.168/0.838 = 0.20048	1
S14	0.336		= 0.336/0.838 = 0.40095	
S15	0.191		= 0.191/0.838 = 0.22793	
S16	0.143		= 0.143/0.838 = 0.17064	

- (c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE VALUE = s13\*0.20048+s14\*0.40095+s15\*0.22793+s16\*0.17064.  
EXECUTE.

B.1.2.6.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Value Composite	Statistical Values
Number	255
Mean	4.2927
Standard Deviation	1.3141
Variance	1.7269
Minimum	1
Maximum	7

B.1.2.6.4 Step 4: Calculate the reliability by:

- (a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates				
	S16	S15	S14	S13
S16	2.319	1.587	1.576	1.402
S15	1.587	2.192	1.603	1.425
S14	1.576	1.603	2.171	1.517
S13	1.402	1.425	1.517	2.177

- (b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	1.349	0.187	7.214	0
S16	0.864	0.106	8.116	0
S15	0.687	0.093	7.396	0
S14	0.465	0.081	5.723	0
S13	0.828	0.092	9.003	0

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
S16	0.17064
S15	0.22793
S14	0.40095
S13	0.20048

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={2.319,1.587,1.576,1.402;
           1.587,2.192,1.603,1.425;
           1.576,1.603,2.171,1.517;
           1.402,1.425,1.517,2.177}.
```

```
compute td={0.864,0.000,0.000,0.000;
            0.000,0.687,0.000,0.000;
            0.000,0.000,0.465,0.000;
            0.000,0.000,0.000,0.828}.
```

```
compute wfs={0.171,0.228,0.401,0.200}.
```

```
compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
print relfs.
END MATRIX.
```

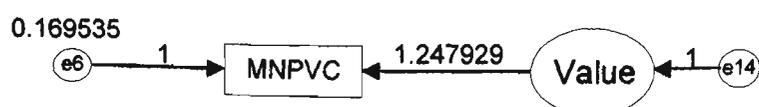
B.1.2.6.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma \sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Value	1.7269	1.3141	0.9018269784	=C2*SQRT(D2)	1.247929	=B2*(1-D2)	0.169535

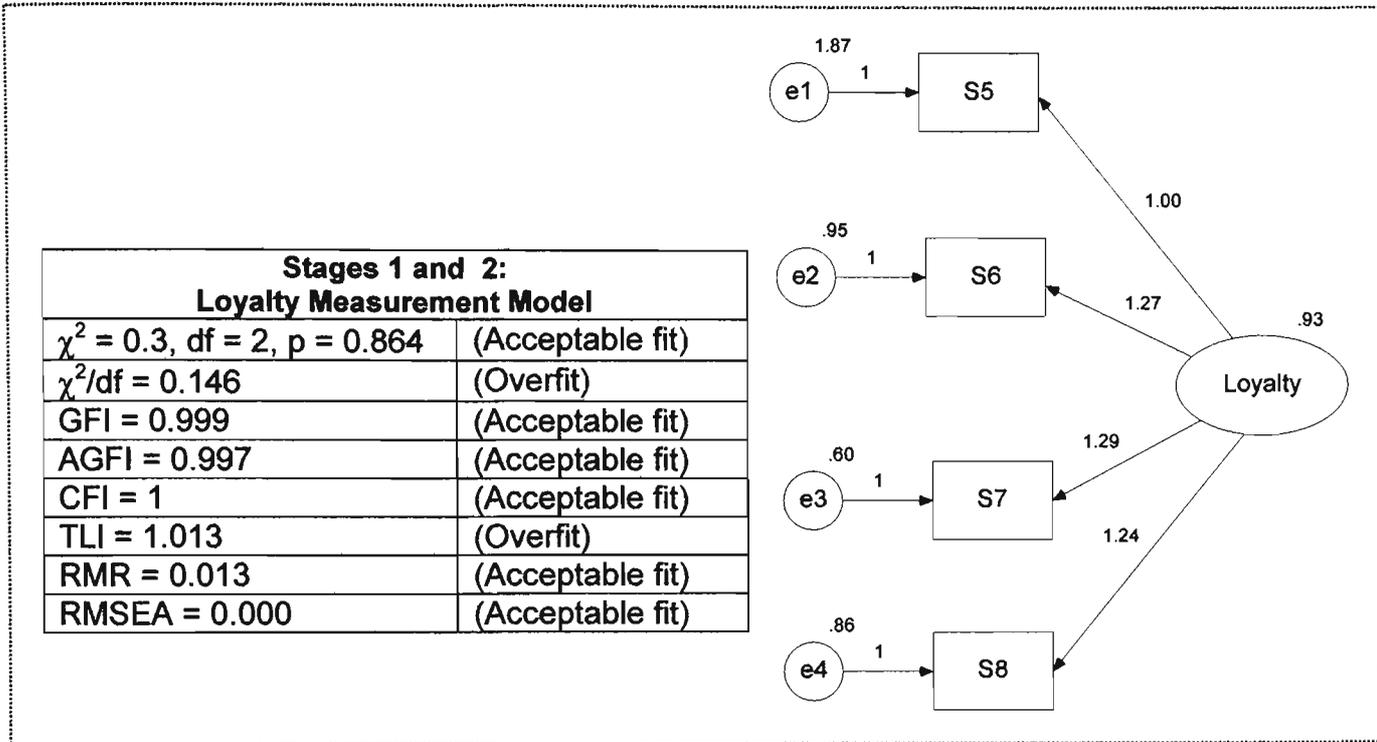
B.1.2.6.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.



### B.1.2.7 Loyalty

#### B.1.2.7.1 Step 1: Fit the Model

The model was fitted.



#### B.1.2.7.2 Step 2: Compute a composite using the factor score weights by:

(a) Sum the factor scores regression weights

Scale Items	Factor Score Regression Weights	Sum ( $\Sigma$ )
S5	0.068	0.694
S6	0.171	
S7	0.272	
S8	0.183	

(b) Divide each factor score weight by the total to get new values

Scale Items	Factor Score Regression Weights	Sum of Factor Score Weights ( $\Sigma$ )	Factor Score Regression Weights / Sum ( $\Sigma$ ) of Factor Score Weights	Sum ( $\Sigma$ )
S5	0.068	0.694	= 0.068/0.694 = 0.09798	1
S6	0.171		= 0.171/0.694 = 0.24640	
S7	0.272		= 0.272/0.694 = 0.39193	
S8	0.183		= 0.183/0.694 = 0.26369	

(c) In SPSS calculate the composite by running the syntax of item number multiplied by factor score weight that was generated in Step 2 (b)

COMPUTE LOYALTY = s5\*0.09798+s6\*0.24640+s7\*0.39193+s8\*0.26369.  
EXECUTE.

B.1.2.7.3 Step 3: In SPSS, find the variance, standard deviation, minimum and maximum of the composite. Record these values.

Loyalty Composite	Statistical Values
Number	255
Mean	4.2835
Standard Deviation	1.29
Variance	1.6642
Minimum	1
Maximum	7

B.1.2.7.4 Step 4: Calculate the reliability by:

(a) Finding the implied covariance matrix from the AMOS print out and construct a matrix

Implied Covariance - Estimates				
	S8	S7	S6	S5
S8	2.282	1.478	1.455	1.148
S7	1.478	2.142	1.515	1.196
S6	1.455	1.515	2.438	1.177
S5	1.148	1.196	1.177	2.795

(b) Find the error variances in the AMOS print out and enter on the diagonal of the theta-delta matrix

Variances				
	Estimate	S.E.	C.R.	P
F1	0.929	0.198	4.694	0
S8	0.862	0.107	8.039	0
S7	0.604	0.095	6.334	0
S6	0.947	0.116	8.192	0
S5	1.866	0.180	10.354	0

(c) Using the re-calibrated (i.e. those summed to equal one) factor score weights to put into the WFS vector

Items	Re-calibrated factor score weights
S8	0.26369
S7	0.39193
S6	0.24640
S5	0.09798

(d) Run the syntax window and keep a record of the reliability

\*Reliability coefficients.

MATRIX.

COMPUTE Relfs=MAKE(1,1,0).

```
compute s={2.282, 1.478,1.455,1.148;
          1.478,2.142,1.515,1.196;
          1.455,1.515,2.438,1.177;
          1.148,1.196,1.177,2.795}.
```

```
compute td={0.862,0.000,0.000,0.000;
            0.000,0.604,0.000,0.000;
            0.000,0.000,0.947,0.000;
            0.000,0.000,0.000,1.866}.
```

```
compute wfs={0.264,0.392,0.246,0.098}.
```

```
compute relfs=(wfs*(s-td)*TRANSPOS(wfs))/(wfs*s*TRANSPOS(wfs)).
```

print relfs.

END MATRIX.

B.1.2.7.5 Step 5: Calculate the factor loading and error variance by:

(a) Calculate the factor loading using the formula:  $\lambda = \sigma\sqrt{\alpha}$

(b) Calculate the error variance using the formula:  $\theta = \sigma^2(1-\alpha)$

	A	B	C	D	E	F	G	H
1	Composite	Variance	Standard Deviation	Reliability	$\lambda$ Calculation	$\lambda$ Result	$\theta\delta$ Calculation	$\theta\delta$ Result
2	Loyalty	1.6642	1.29	0.8623876813	=C2*SQRT(D2)	1.197956	=B2*(1-D2)	0.229014

B.1.2.7.6 Step 6: These values have then been used to fix the  $\lambda$  and  $\theta$  in the full structural model.



## **Appendix C: Questionnaire**



16.	I find that to adopt a careful, analytical approach to making decisions takes too long.	T	?	F
17.	I make most progress when I take calculated risks.	T	?	F
18.	I find that it is possible to be too organised when performing certain kinds of task.	T	?	F
19.	I always pay attention to detail before I reach a conclusion.	T	?	F
20.	I make many of my decisions on the basis of intuition.	T	?	F
21.	My philosophy is that it is better to be safe than risk being sorry.	T	?	F
22.	When making a decision, I take my time and thoroughly consider all relevant factors.	T	?	F
23.	I get on best with quiet, thoughtful people.	T	?	F
24.	I would rather that my life was unpredictable than that it followed a regular pattern.	T	?	F
25.	Most people regard me as a logical thinker.	T	?	F
26.	To fully understand the facts I need a good theory.	T	?	F
27.	I work best with people who are spontaneous.	T	?	F
28.	I find detailed, methodical work satisfying.	T	?	F
29.	My approach to solving a problem is to focus on one part at a time.	T	?	F
30.	I am constantly on the lookout for new experiences.	T	?	F
31.	In meetings, I have more to say than most.	T	?	F
32.	My 'gut feeling' is just as good a basis for decision making as careful analysis.	T	?	F
33.	I am the kind of person who casts caution to the wind.	T	?	F
34.	I make decisions and get on with things rather than analyse every last detail.	T	?	F
35.	I am always prepared to take a gamble.	T	?	F
36.	Formal plans are more of a hindrance than a help in my work.	T	?	F
37.	I am more at home with ideas rather than facts and figures.	T	?	F
38.	I find that 'too much analysis results in paralyses'.	T	?	F

<b>BACKGROUND INFORMATION</b>	<b>COGNITIVE PREFERENCES</b>	<b>COURSE EXPERIENCE</b>	<b>LEARNING SUPPORTS</b>	<b>CULTURAL VALUES</b>	<b>NEGATIVE INTERACTIONS</b>	<b>SATISFACTION</b>
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Please circle a number alongside each question that most closely represents your opinion

1 Extremely Unimportant / Strongly Disagree	2 Very Unimportant / Disagree	3 Somewhat Unimportant / Somewhat Disagree	4 Neither Important or Unimportant / Neither Disagree or Agree	5 Somewhat Important / Somewhat Agree	6 Very Important / Agree	7 Extremely Important / Strongly Agree
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	<i>How Important:</i>							<i>How True:</i>						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1. It was always easy to know the standard of work expected.														
2. The course developed my problem solving skills.														
3. The teaching staff of this course motivated me to do my best work.														
4. The workload was too heavy.														
5. The course sharpened my analytic skills.														
6. I usually had a clear idea of where I was going and what was expected of me in this course.														
7. The staff put a lot of time into commenting on my work.														
8. To do well in this course all you really needed was a good memory.														

9. The course helped me develop my ability to work as a team member.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
10. As a result of my course, I feel confident about tackling unfamiliar problems.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
11. The course improved my skills in written communication.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
12. The staff seemed more interested in testing what I had memorised than what I had understood.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
13. It was often hard to discover what was expected of me in this course.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
14. I was generally given enough time to understand the things I had to learn.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
15. The staff made a real effort to understand difficulties I might be having with my work.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
16. The assessment methods employed in this course required an in-depth understanding of the course content.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
17. The teaching staff normally gave me helpful feedback on how I was going.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
18. My lecturers were extremely good at explaining things.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
19. Too many staff asked me questions just about facts.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
20. The teaching staff worked hard to make their subjects interesting.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
21. There was a lot of pressure on me to do well in this course.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
22. My course helped me to develop the ability to plan my own work.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
23. The sheer volume of work to be got through in this course meant it couldn't all be thoroughly comprehended.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
24. The staff made it clear right from the start what they expected from students.	1	2	3	4	5	6	7	1	2	3	4	5	6	7

BACKGROUND INFORMATION	COGNITIVE PREFERENCES	COURSE EXPERIENCE	LEARNING SUPPORTS	CULTURAL VALUES	NEGATIVE INTERACTIONS	SATISFACTION
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Please circle a number alongside each question that most closely represents your opinion.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Agree	Strongly Agree

**Do you agree or disagree that:**

1	Modern library facilities were available.	1	2	3	4	5	6	7
2	The library's operating hours were adequate.	1	2	3	4	5	6	7
3	Modern computer facilities were available.	1	2	3	4	5	6	7
4	Computer laboratories were easily accessible.	1	2	3	4	5	6	7
5	The university offers flexible timetables.	1	2	3	4	5	6	7
6	The university acknowledges recognition for prior learning.	1	2	3	4	5	6	7
7	The university staff willingly give their time to help students with course related problems.	1	2	3	4	5	6	7
8	The university staff are willing to take time out of their busy schedules to explain administrative and other procedures to students.	1	2	3	4	5	6	7
9	The university staff try to contact students before initiating actions that might affect them.	1	2	3	4	5	6	7
10	The university staff try to prevent administrative and other problems for students.	1	2	3	4	5	6	7
11	The university staff encourage students when they are down or have problems.	1	2	3	4	5	6	7
12	The university staff act as a peacemaker when students have conflicts.	1	2	3	4	5	6	7
13	The university staff are a stabilizing influence when problems occur.	1	2	3	4	5	6	7

14	The university staff are consistently courteous with students.	1	2	3	4	5	6	7
15	The university staff have the knowledge to answer students questions.	1	2	3	4	5	6	7
16	The university staff give prompt service to students.	1	2	3	4	5	6	7
17	The university staff tell students exactly when services will be performed.	1	2	3	4	5	6	7

BACKGROUND INFORMATION	COGNITIVE PREFERENCES	COURSE EXPERIENCE	LEARNING SUPPORTS	CULTURAL VALUES	NEGATIVE INTERACTIONS	SATISFACTION
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***Do you agree or disagree that:***

1.	Group welfare is more important than individual rewards.	1	2	3	4	5	6	7
2.	Group success is more important than individual success.	1	2	3	4	5	6	7
3.	Being accepted by members of your work group is very important.	1	2	3	4	5	6	7
4.	Employees should only pursue their goals after considering the welfare of the group.	1	2	3	4	5	6	7
5.	Managers should encourage group loyalty even if individual goals suffer.	1	2	3	4	5	6	7
6.	Individuals may be expected to give up their goals in order to benefit group success.	1	2	3	4	5	6	7
7.	It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do.	1	2	3	4	5	6	7
8.	Managers expect employees to closely follow instructions and procedures.	1	2	3	4	5	6	7
9.	Rules and regulations are important because they inform employees what the organisation expects of them.	1	2	3	4	5	6	7
10.	Standard operating procedures are helpful to employees on the job.	1	2	3	4	5	6	7
11.	Instructions for operations are important for employees on the job.	1	2	3	4	5	6	7
12.	Meetings are usually run more effectively when they are chaired by a man.	1	2	3	4	5	6	7
13.	It is more important for men to have a professional career than it is for women to have a professional career.	1	2	3	4	5	6	7
14.	Men usually solve problems with logical analysis; women usually solve problems with intuition.	1	2	3	4	5	6	7
15.	Solving organisational problems usually requires an active forcible approach which is typical of men.	1	2	3	4	5	6	7
16.	It is preferable to have a man in a high level position rather than a woman.	1	2	3	4	5	6	7
17.	Managers should make most decisions without consulting subordinates.	1	2	3	4	5	6	7
18.	It is frequently necessary for a manager to use authority and power when dealing with subordinates.	1	2	3	4	5	6	7
19.	Managers should seldom ask for the opinions of employees.	1	2	3	4	5	6	7
20.	Managers should avoid off – the – job social contacts with employees.	1	2	3	4	5	6	7
21.	Employees should not disagree with management decisions.	1	2	3	4	5	6	7
22.	Managers should not delegate important tasks to employees.	1	2	3	4	5	6	7

BACKGROUND INFORMATION	COGNITIVE PREFERENCES	COURSE EXPERIENCE	LEARNING SUPPORTS	CULTURAL VALUES	NEGATIVE INTERACTIONS	SATISFACTION
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***Do you agree or disagree that:***

1.	After an embarrassing experience, I worry about it for days.	1	2	3	4	5	6	7
2.	I know that things will continually improve in my life.	1	2	3	4	5	6	7
3.	I feel that I have a great deal to be proud of.	1	2	3	4	5	6	7
4.	I often feel restless and jittery for no apparent reason.	1	2	3	4	5	6	7

5.	Things rarely work out the way I want them to.	1	2	3	4	5	6	7
6.	I am not as well liked as most people.	1	2	3	4	5	6	7
7.	Every day seems exciting, new, and different.	1	2	3	4	5	6	7
8.	My feelings are more easily hurt than most other people.	1	2	3	4	5	6	7
9.	I can easily concentrate on things for as long as I like.	1	2	3	4	5	6	7
10.	Whenever someone criticizes me, I think about it for days.	1	2	3	4	5	6	7
11.	I am hopeful and optimistic about the future.	1	2	3	4	5	6	7
12.	When things go wrong, I blame myself.	1	2	3	4	5	6	7
13.	I rarely lose sleep over worrying about something.	1	2	3	4	5	6	7
14.	I am a person of worth, at least as good as other people.	1	2	3	4	5	6	7
15.	I always expect the worst to happen.	1	2	3	4	5	6	7
16.	I am more content and happy than most other people.	1	2	3	4	5	6	7
17.	Happy endings only occur in the movies and in fairytales.	1	2	3	4	5	6	7
18.	I am not as self-confident as most other people.	1	2	3	4	5	6	7
19.	When I meet people for the first time I am tense and uptight.	1	2	3	4	5	6	7
20.	If I could live my life over, I would do many things differently.	1	2	3	4	5	6	7
21.	The future seems rather bleak and unpromising.	1	2	3	4	5	6	7

BACKGROUND INFORMATION	COGNITIVE PREFERENCES	COURSE EXPERIENCE	LEARNING SUPPORTS	CULTURAL VALUES	NEGATIVE INTERACTIONS	SATISFACTION
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***Do you agree or disagree that:***

1.	Overall, I am satisfied with the quality of teaching provided by teachers in this course.	1	2	3	4	5	6	7
2.	Overall, I am satisfied with the quality of this course.	1	2	3	4	5	6	7
3.	I would recommend to friends and others to take this course if it was of interest to them.	1	2	3	4	5	6	7
4.	I am glad I chose this course over others I might have taken.	1	2	3	4	5	6	7
5.	I would take another course in my areas of interest if this university offered it.	1	2	3	4	5	6	7
6.	I would recommend to friends and others to take any course offered by this University if it was in their areas of interest.	1	2	3	4	5	6	7
7.	If a course with identical content was available at another University I would still prefer a course from this University.	1	2	3	4	5	6	7
8.	Even if another University had courses as good as those at this University I would still choose a course from this University.	1	2	3	4	5	6	7
9.	Compared to other Universities' Courses, this University's Course is of very high quality.	1	2	3	4	5	6	7
10.	This University's Course is the best Course available.	1	2	3	4	5	6	7
11.	This University's Courses consistently provide better outcomes than all other Universities' Courses.	1	2	3	4	5	6	7
12.	I can always count on this University's Courses for consistent high quality.	1	2	3	4	5	6	7
13.	What I get from this University's Course is worth the cost.	1	2	3	4	5	6	7
14.	All things considered (price, time, and effort) this University's Course is a good buy.	1	2	3	4	5	6	7
15.	Compared to other University Courses, this University's Course is good value for money.	1	2	3	4	5	6	7
16.	When I use knowledge gained from this University Course, I feel I am getting my money's worth.	1	2	3	4	5	6	7
17.	The price of this University's Course would have to go up quite a bit before I would switch to another University's Course.	1	2	3	4	5	6	7

18. I am willing to pay a higher price for this University's Courses than for other Universities' Courses. 1 2 3 4 5 6 7
19. I am willing to pay \_\_\_% more for this University's Courses over other Universities' Courses. (Please circle percentage rate).  
 0%      5%      10%      15%      20%      25%      30% or more
20. I am willing to pay a lot more for this University's Courses than other Universities' Courses. 1 2 3 4 5 6 7
21. How important were the following as selection criteria and how satisfied are you now with the following criteria:

Please circle a number alongside each question that most closely represents your opinion

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Extremely Unimportant / Very Unsatisfied	Very Unimportant / Unsatisfied	Somewhat Unimportant / Somewhat Unsatisfied	Neither Important or Unimportant / Neither Unsatisfied or Satisfied	Somewhat Important / Somewhat Satisfied	Very Important / Satisfied	Extremely Important / Very Satisfied

	<i>How Important:</i>							<i>How Satisfied:</i>							
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
a It was always easy to know the standard of work expected.															
b This University's Location.															
c This University's Reputation.															
d The Government Points allocated to this University.															
e This University's Courses.															
22. Are you consenting to have this data used for research purposes other than for educational purposes?														Yes	No

### The Following Section Is Optional:

If you would like a copy of your individualized preferences for the following, please tick the appropriate boxes and write your email address below:

- Cultural Orientation       Cognitive Preference

Email address:

---

## **Appendix D: Student Handout**

## Here is your Cultural Orientation Profile...



### What it all means:

#### Collectivism

This dimension focuses on the degree the society reinforces individual or collective, achievement and interpersonal relationships.

#### Very Low Preference

A High Collectivism ranking typifies societies of a more collectivist nature with close ties between individuals. These cultures reinforce extended families and collectives where everyone takes responsibility for fellow members of their group.

A Low Collectivism ranking indicates that individuality and individual rights are paramount within the society. Individuals in these societies may tend to form a larger number of looser relationships.

#### Uncertainty Avoidance

Uncertainty Avoidance focuses on the level of tolerance for uncertainty and ambiguity within the society - i.e. unstructured situations.

#### Moderate Preference

A High Uncertainty Avoidance ranking indicates the country has a low tolerance for uncertainty and ambiguity. This creates a rule-oriented society that institutes laws, rules, regulations, and controls in order to reduce the amount of uncertainty.

A Low Uncertainty Avoidance ranking indicates the country has less concern about ambiguity and tolerance for a variety of opinions. This is reflected in a society that is less rule-oriented, more readily accepts change, and takes more uncertainty and has more and greater risks.

### **Masculinity**

### **Low Preference**

Masculinity focuses on the degree the society reinforces, or does not reinforce, the traditional male achievement, control, and power.

A High Masculinity ranking indicates the country experiences a high degree of gender differentiation. In these cultures, males masculine work role model of dominate a significant portion of the society and power structure, with females being controlled by male domination.

A Low Masculinity ranking indicates the country has a low level of differentiation and discrimination between genders. In these cultures, females are treated equally to males in all aspects of the society.

### **Power Distance**

### **Strong Preference**

This dimension focuses on the degree of equality, or inequality, between people in the country's society.

A High Power Distance ranking indicates that inequalities of power and wealth have been allowed

to grow within the society. These societies are more likely to follow a caste system that does not allow significant upward mobility of its citizens.

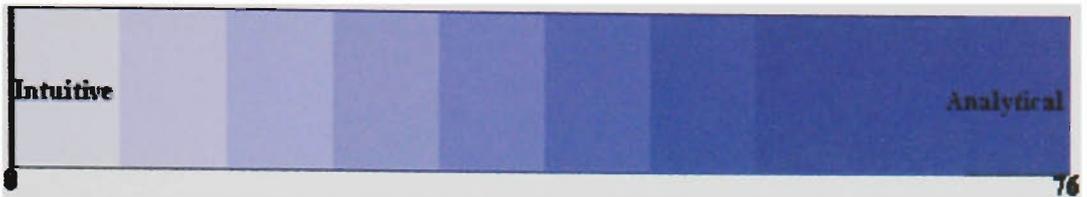
A Low Power Distance ranking indicates the society de-emphasizes the differences between citizen's power and wealth. In these societies equality and opportunity for everyone is stressed.

Note: Descriptions were taken from: <http://www.cyborlink.com/besite/hofstede.htm>

## Here is your Cognitive Style Profile...

Your Score:

46



### What it all means:

**Intuition:** refers to immediate judgement based on feeling and the adoption of the global perspective. These people tend to be relatively nonconformist, and prefer an open ended approach to problem solving. They rely on random methods of exploration, remember spatial images most easily and work best with ideas requiring overall assessment.

**Analysis:** refers to judgement based on mental reasoning and a focus on detail. These people tend to be compliant and favour a structured approach to problem solving. They depend on systematic methods of investigation, recall verbal material most readily and are especially comfortable with ideas requiring step by step analysis.

**The closer your score to 76 the more analytical you are.**  
**The closer your score to 0 the more intuitive you are.**

Note: Descriptions were taken from:

Allinson, C.W & Hayes, J. 1996, 'The Cognitive Style Index: A measure of intuition-analysis for organizational research', *Journal of Management Studies*, 33:1, pp.119-135.

## **Appendix E: Staff Handout**



## **Appendix F: Ethics Approval**



File Edit View Insert Format Tools Actions Help

Type a question for help ▾



ⓘ Extra line breaks in this message were removed. To restore, click here.

From: jean.dawson [jean.dawson@vu.edu.au]

Sent: Wed 29/05/2002 4:26 AM

To: Patrick Foley; Ann Mitsis

Cc:

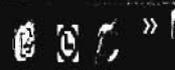
Subject: Ethics Approval

Dear Pat and Anne

Sorry that this has taken a while to come through, but your ethics application has now been approved.

Best wishes

Jean D



Inbox - Microsoft Out...

✉ Ethics Approval - Mes...

New Folder



5:50 PM