Chapter 3

Theoretical and Conceptual Framework

3.1. Introduction

The purpose of this chapter is to present a theoretical and conceptual framework and a preliminary model of post choice satisfaction, which will be employed by this study. The final model will be developed and presented in chapter 4, following preliminary analysis of data. The theoretical and conceptual framework is based on the findings presented in the literature reviewed earlier. The model provides the framework for the research design and data analysis. The following theories and theoretical frameworks serve as a foundation to the proposed model of post-choice satisfaction and the ensuing discussion will highlight the relationship and the influence of these theoretical concepts in relation to the development of the model.

Two dominant concepts in the customer satisfaction and service quality literature are expectations and perceptions, which are key inputs in the model developed for the current study. Many researchers and practitioners agree that expectations serve as a comparison standard to judge the performance of the service delivery as perceived by the customer (Pierre -Yves and Phillipe, 2002; Limaye, 2000; Halstead, 1999; Boulding and Kalra, 1993; Boothe, 1990; Tse and Wilton, 1988; and Oliver and DeSarbo, 1988). The following is a brief review of these concepts.

3.2. Expectations

Customer expectations are pre-trial beliefs about a product or service (Olson and Dover, 1976). Expectations are formed with the aid of different sources of information, which include prior exposure to service, word of mouth, expert opinion, publicity, and communications controlled by the firm or institution (for example, advertising, personal selling and price), as well as prior exposure to competitive services (Zeithaml et al, 1990).
Though there is consensus among researchers on expectation as a comparison standard for customer satisfaction, differences with regard to the conceptual definitions of the expectations construct are presented. A comparison standard refers to the referent used by customers to evaluate product or service performance and form disconfirmation and satisfaction judgements (Halstead, 1999). Oliver (1980) was the first to conceptualise the notion of predictive expectations (predictions about a product’s overall performance or attribute levels) as a pre-purchase standard. The consumer judgements of satisfaction or dissatisfaction result from the process of confirming or disconfirming prior expectations. The expectancy-disconfirmation paradigm was a major issue in the early research by Cardozo (1965); Olson and Dover (1976); LaTour and Peat (1979); Oliver (1980); Churchill and Suprenant (1982); and Bearden and Teel (1983).

Bearden and Teel (1983) and Westbrook and Newman (1987) view expectations as the primary perception of the likelihood (or probability of occurrence) of some event while some others (Churchill and Suprenant, 1982; Oliver, 1980 and 1981; Tse and Wilton, 1988) contend that expectations are both an estimate of the likelihood of an event and an evaluation of the ‘goodness’ and ‘badness’ of the event.

The evaluative element of the latter description of expectations may confound a person’s judgement of an event with an expectation of the likelihood of its occurrence (Spreng et al, 1996). This is because such evaluations could involve several other standards of comparison (eg. desires, industry norms, equity, best brand). Spreng et al (1996) argue that one should avoid confounding predictive expectations (what a person believes is likely to happen in the future) with these judgements and agree with the definition of Olson and Dover (1976) of expectations as beliefs about product attributes or performance at some time in the future.

Miller (1977), identified four types of expectations - the ideal (what performance ‘can be’), the expected (what performance ‘will be’) the minimum tolerable (what performance “must be”) and the desired (what performance “should be”). According to Miller (1977), the satisfaction process “sorts out” different types of expectations in
purchase and consumption situations, the end results being different. His suggestion for ‘latitudes’ of satisfaction and dissatisfaction is based on this premise.

Recent studies on customer satisfaction have argued that there are other comparison standards that are appropriate to measure satisfaction. The recent thrust for re-examination of the traditional expectation construct and the use of alternative or multiple comparison standards has presented a challenge as well as added further complexity in regard to choosing an appropriate comparison standard for customer satisfaction (Droge and Halstead, 1997; et al, 1993 and 1991; Zeithaml et al, 1990; Spreng and Olshavsky, 1993; Boulding et al, 1993; Gardial et al, 1994). Droge and Halstead (1997) have found that satisfaction research in the past two decades has focused on identifying additional antecedent variables to improve explanatory power, beyond expectations and disconfirmations. They argue that this is a positive development for satisfaction research. They cite the example using non-choice alternatives as a comparison standard to measure post-choice satisfaction. Which of these alternatives are processed post choice and in what context is still unknown and therefore, authors assert, that future research should be channelled towards these important areas. The lack of consensus on the comparison standard and the actual nature and meaning of the construct used continues to be a debatable issue in satisfaction research.

Halstead (1999) identified over 30 research studies on the use of comparison standards in customer satisfaction research and management since 1982. Appendix 2 provides a summary of these studies, which shows the attempts to identify standards other than expectation as a comparison standard given the complexity involved in the satisfaction formation process. In her review of the literature, Halstead (1999) identified three major trends in the use of comparison standards for measuring post choice satisfaction. The first is the use of more than one type of expectation (following Miller, 1977, as discussed above). The second is based on the timing of comparison standard measurement ascertainning whether the expectation should be measured before or after product or service exposure. Researchers have differed in their opinions on the implications of the two situations. While Droge and Halstead (1991) have found a negative relationship between expectations and satisfaction when expectations were measured after product or service exposure, Anderson and Sullivan
(1990) found it to be a positive relationship. In measuring expectations before product or service exposure, Tse and Wilton (1988) and Oliver and Sarbo (1988) found a positive relationship between expectations and satisfaction. The third is moving away from a single comparison standard in favour of multiple or unique standards that might include expectations (Spreng et al., 1996; Woodruff et al., 1988, 1983). Customer expectation as a standard has not been discounted in any of these studies, though investigations have revealed that there are other factors such as experience-based norms and desires that would override expectation as a standard in certain circumstances.

For example, Woodruff et al. (1983) introduced experience-based norms, which incorporated consumer’s past experience with other brands of a product category as consumers’ standard of comparison. Spreng and Olshavsky (1993), on the other hand, used desires as a comparison standard in their model in addition to expectation, and found that desires had a stronger impact on satisfaction. Desires are the attributes and benefits that consumers believe will lead to higher level values and guide their behaviour (Halstead, 1999). It is argued however, that the idea of desires is closely aligned to Tse and Wilton (1988) ideal standard following Miller’s notion of ideal expectations (Halstead, 1999).

Tse and Wilton (1988), Oliver and Swan (1989) and Woodruff et al. (1991), also proposed equity, which refers to the fairness or rightness of something in comparison to other entities, as a comparison standard. However, in subsequent research by Oliver (1996) noted that equity is considered more as a process of comparison rather than a comparison standard and also has been found to be not significant as a predictor of satisfaction.

The drawbacks with the broadening of the comparison standard construct are two fold. First, such multiple standards result in variation in their theoretical relationships with satisfaction, other satisfaction antecedents (eg, disconfirmation), and satisfaction outcomes (Halstead, 1999). This is because theoretical relationships vary depending on the type of standard employed (Oliver 1977 and 1996; Halstead 1993; Tse and Wilton 1988; Cadotte et al 1987) and would have different effects on satisfaction (Tse and Wilton, 1988). Secondly, a lack of consensus on the exact nature and meaning of
the construct require standardisation of terminology based on conceptual development and measurement (Halstead, 1999).

The model used in this study uses expectation as a comparison standard to measure students’ satisfaction. The use of expectation as a comparison standard is widely supported in the satisfaction and service quality literature (Oliver 1980 and 1996; Zeithaml et al, 1990; Tse and Wilton 1988; Anderson and Sullivan 1990). Moreover, customer’s ideal expectation reflecting customer’s most desirable expected outcomes is used as the comparison standard - arguably more stable over time than other forms of expectations (Boulding and Kalra, 1993).

3.3. Perceptions

Perception is defined as the “process by which an individual receives, selects and interprets stimuli to form a meaningful and coherent picture of the world” (Schiffman et al, 2001, p148). In customer satisfaction and service quality literature, perceptions are defined as the consumer’s judgement of the service organisation’s performance. The perceived quality construct developed by Parasuraman et al in 1988 with its SERVQUAL instrument, is defined as the difference between perceptions and expectations. Many researchers (Carman, 1990; Finn and Lamb, 1991; Peter et al, 1993) support the theoretical basis of the construct despite their criticisms of SERVQUAL on operational aspects.

Boulding and Kalra (1993), in their process model of service quality, conceptualise customers’ perception of each of the dimensions of service quality as a cumulative construct. This means that the perception is updated each time a customer is exposed to the service. They argue, therefore, that customer perceptions are not only influenced by expectations of the service but also by the recency of the service encounter. Sue (2001) in her analysis of student perceptions of study outcomes, asserts that the length of experience with an educational service can influence student perceptions. If two customers enter the encounter with different expectations, they would have different cumulative perceptions of the service, even if both customers experience an identical service. The main argument is that a person’s expectations can change the way he or she perceives reality. Boulding and Kalra (1993), conclude that
it is important to understand the type of expectation of the customer in order to
manage the perception of service quality and satisfaction.

The customer perceptions of post consumption performance are appraisals and
feelings about a chosen alternative and consumers react to it on an objective (product
or service-attribute) level as well as on a subjective (emotional) level (Neelamegaham
and Jain, 1999). Because of this, researchers acknowledge diversity of perceptions as
one of the most fundamental concepts in intercultural communication (Limaye, 2000).
According to Jandt (1995), perception is unique to each person, it being a three-step
process of selection, organisation and interpretation. It has also been found that
perceptions differ due to differences in gender (Ndlovu and Senguder, 2002; Lin et
al, 2001), physical environment of the service settings (Wakefield and Blodgett,
1999), and cultural background (Limaye, 2000). These findings indicate that a clear
understanding of how perceptions are formed is critical to any service business as it
facilitates formulation of strategies to manage customer perceptions of service
performance.

In this study student perceptions of the performance of universities are based on
"ideal" or "desired" expectations. Under the paradigm of service-recipient which
considers students as customers (Havarnek and Brodwin, 1998), universities need to
be highly student-focused in their service delivery. The evaluation of the quality and
performance of a service such as university education can take place only after
experiencing or consuming because customers have limited tangible pre-choice cues.
The perceptions formed during this evaluative process are key indicators of customer
satisfaction or dissatisfaction (Halstead et al, 1994).

3.4. Consumer decision making process

3.4.1. Pre-choice (Pre-purchase) stage

Consumer decision-making has been studied for over two decades and researchers
have advanced multi-disciplinary theoretical and conceptual frameworks over time to
interpret the complex process. The resulting models provide somewhat different
views of the consumer’s decision-making process. This section will review some of
the key models of consumer decision-making to provide a background to the model developed in the present study. Some of the well known and those representative of the broader perspective of consumer decision making include the Economic model, Passive model, Cognitive model and Emotional model (Schiffman et al, 2001; Lawson et al, 1996).

Economists were the first to develop comprehensive consumer models of decision-making seeking to understand the general economic system. These include contributions by Simon (1957); Arrow and Hurwicz (1972); and Keeny and Raiffa (1976). Micro and Macro economists developed alternative views of consumers, though the fundamental assumptions remained the same. The economic theory of consumer decision-making behaviour was based on the basic assumption of maximising satisfaction of wants and needs with the available scarce resources (Schiffman et al, 2001; Lawson et al, 1996).

The passive model of consumer decision-making is different from the economic viewpoint as it is based on the belief that consumers are submissive to the self-serving interests and promotional efforts of marketers. In this context, consumers are perceived as impulsive and irrational purchasers, ready to yield to the arms and aims of marketers (Schiffman et al, 2001; Lawson et al, 1996).

The cognitive model views consumers as information processing systems, actively seeking products and services that fulfil their needs and enrich their lives. This model focuses on the processes by which consumers seek and evaluate information about selected products and services and accept that the consumer does not make economically rational decisions. (Schiffman et al, 2001). This model is widely applied in the marketing literature.

The emotional model follows the concept of consumer decision-making based on deep feelings and emotions or impulses. Such emotional purchase decisions place less emphasis on the search for pre-purchase information (Schiffman et al, 2001). The cognitive or problem solving model of decision-making has been identified at three levels – extensive problem solving, limited problem solving and routinised response behaviour (Howard and Sheth, 1969). This model borrows from learning-theory
concepts to explain "brand-choice behaviour over time as learning takes place and the buyer moves from extensive to routinised problem-solving behaviour" (Lawson et al, 1996, p.672),

A more specific model of significance in explaining the consumer decision-making process is one developed by Engel, Kolat and Blackwell (1973). The EKB model (Engel, Kolat and Blackwell) incorporated both products and services for high involvement decisions. The revised EKB model, known as EBM model (Engel, Blackwell and Miniard, 1986) explores the extended problem solving decision process of a high professional service applicable to the higher education service for international students.

Kotler (1975) proposes a model reflecting the process of selecting colleges (universities) by high school students within the US. He described the university selection process as being essentially funnel-like. This model is shown in Figure 3.1.

**Figure 3.1: University selection process**

![Diagram of university selection process]

Source: Kotler, 1975, p.89.

Lawley (1993) developed a more descriptive model adapting the consumer decision-making model of Engel Blackwell Miniard (EBM), to analyse how students from Hong Kong select a university. This was shown as a multi-step process, similar to the interpretation of Kotler (1975) in his presentation on the selection of a university by students. Lawley’s focus was on the factors influencing the process of selection of a university and subsequently Lawley and Blight (1997) developed a model adding
different dimensions and linking them with intention and choice. Figure 3.2 shows the model developed by Lawley and Blight (1997).

Figure 3.2: Model of university choice by international students

The Decision Process

- Problem recognition
  - Information search
  - Evaluation of alternatives
    - USA
    - UK
    - AUSTRALIA
    - CANADA
  - INTENTION
  - CHOICE

Factors influencing the decision process

- Impact of 1997
- Course characteristics
- ACADEMIC
  - Standard of courses
  - Recognition of qualifications
  - Standard of teaching
- ADMINISTRATIVE
  - Availability of information
  - Ease of entry
  - Exemptions
- GEOGRAPHIC
  - Climate
  - Distance from home country
- SOCIAL
  - Safety
  - Way of life
  - Racial
  - Discrimination
  - Immigration potential
- ECONOMIC
  - Cost
- LEGAL
  - Ease in obtaining student visa
  - Work rights

Source: Lawley and Blight (1997)
A similar but more restricted study undertaken by the University of Wollongong presented an extended decision-making model confirming university selection as a multi-faceted process, based on the EBM model (Hill et al, 1995).

The emphasis of the above models is on the pre-choice (pre-purchase) phase of the consumer decision-making process. Though the focus of the model developed for the present study is the post-choice (post-purchase) stage of the consumer decision process, it draws heavily on the above models in regard to the theoretical concept and framework. In particular, the choice factors and variables used in the models developed by Lawley (1993), and Lawley and Blight (1997) have become inputs as some of the key variables for post-choice satisfaction measures, among the other variables operationalised.

3.4.2. Post-choice (Post-purchase) stage

Post-choice behaviour of customers is largely related to the evaluation of the choice made by the customer. Consumers tend to rethink their decisions in the light of the experience with the product and service during this stage because of the uncertainty of the wisdom of their decisions (Lawson et al 1996). Satisfaction is an important element in this evaluation process.

Figure 3.3 below represents the post-choice phase of the decision making process which forms the basis of the model developed for the thesis. The post-choice phase of the decision making process is in bold outline and shaded areas represent the outcomes.

Oliver (1996) articulates the impact of choice criteria and satisfaction drivers during this phase. He argues that there is a difference between the choice criteria and the satisfaction drivers. Therefore, consumer’s satisfaction response is not influenced solely by the choice criteria, which are the variables responsible for making a choice, but also by other factors not related to the pre-choice stage. One supporting argument is that satisfaction results from the experience of feature or service performance and some of these pre-choice criteria may not provide the experience required to create a satisfaction response.
Figure 3.3: Post Choice Decision Making

(Developed from Engel, Blackwell and Miniard, 1986, p.356)

This view is empirically supported by Gardial et al (1994). However, it is also argued that satisfaction thoughts were similar to evaluation thoughts, but were more oriented to a comparison against standards, viewed as prior expectations. In this context, Oliver (1996) does not discount the positive impact of the choice criteria with regard to satisfaction in addition to the other satisfaction drivers, as shown in figure 3.4 below.

This figure indicates that some variables influence choice strongly and they also can have an influence on satisfaction some moderately and others with lesser impact. Similarly, there are factors (variables), which are termed as satisfaction drivers in view of their strong influence on satisfaction/dissatisfaction, and can have moderate or lesser influence on choice. In between, there are factors, which can influence choice as well as satisfaction/dissatisfaction strongly and hence are termed as ‘dual influence factors’ (variables).
In developing a model for the present study, these influences were tested during the exploratory stage and selected choice criteria/variables were used as comparison standards in the form of prior expectations of students to measure satisfaction. The final model, as shown in figure 4.3, incorporates Oliver’s (1980,1996) expectancy-disconfirmation Paradigm and the SERVQUAL measurement approach (Parasuraman et al, 1988,1991 and 1994).

3.5. Expectations and Perceptions paradigm

One of the widely discussed and tested approaches in measuring customer satisfaction is Oliver’s (1980) expectancy-disconfirmation model or its variants. Expectancy-disconfirmation is a derivative of adaptation-level theory and says that customers compare actual product and service performance with their prior expectations. The paradigm postulates that customer satisfaction is related to the size and direction of disconfirmation, which is defined as the difference between the individual’s pre-purchase (pre-choice) expectations (or some other comparison standard) and post-purchase (post-choice) performance of the product or service perceived by the customer (Anderson, 1973; Oliver, 1980). If expectations are met or exceeded, the customer is satisfied. Dissatisfaction results when perceived performance falls below...
expectations. There are two basic methods of investigating confirmation and
disconfirmation of expectations, namely the inferred approach and the direct method

The inferred approach involves computing the discrepancy between expectations of
performance and the evaluation of outcomes. This technique entails developing
separate data sets relating to customer-service expectations and perceived
performance. The scores for performance are then subtracted from those of
expectations to form the third variable: the confirmation - disconfirmation (or
difference) score, which is used in subsequent analysis (Yuksel and Rimmington,
1998).

The direct approach, however, requires the use of summary-judgement scales to
measure confirmation and disconfirmation (eg. a Likert-type scale of ‘better than
expected’ to ‘worse than expected’). The researcher does not need to calculate the
‘difference scores’ as the respondents can be asked directly the extent to which the
service experience exceeded, met or fell short of expectations (Yuksel and

Despite its growing popularity, the expectancy-disconfirmation paradigm has received
a great deal of theoretical and operational criticism; in particular for including
expectations and for using difference scores in assessing CS/D (Buttle, 1996;
Churchill and Supernant, 1982). Most criticism has been focused on the measurement
bias, for example if expectations were measured after or even simultaneously with the
service experience, the expectations would be biased by such experience (Gronroos,
1993). The problem would be if the experience were positive, the expectations would
be overstated and if negative, it would be understated.

In view of the above contamination, researchers recommend that the expectations
should be solicited before the service experience as the expectations will be
contaminated by perceptions of the actual service provided (Getty and Thomson,
1994; Carman, 1990). Some others, however, argue that measuring expectations
before service experience can be problematic as the customer is likely to modify
expectations during the service encounter and use those modified (perhaps more
realistic) expectations as the standard of comparison (Weber, 1997; Danaher and Mattsson, 1994; Gronroos, 1993). In other words, the likelihood of the customer revising expectations based on the experience of the previous encounter is common in the hospitality industry. As Weber (1997) points out events that are completely unanticipated prior to a service encounter may become significant contributors to the consumers' overall dissatisfaction or satisfaction. The revision of expectations and its effects on the perceptions of performance of service delivery appears to be part of the satisfaction formation process not confined to one particular industry.

Dorfman (1979) argues that a measurement of expectations can lead to consistently high ratings being given by customers while Babakus and Boller (1992) maintain that customers when asked to indicate an expected level and an existing level seldom rate expected level lower than the existing level - a tendency to proclaim high expectations. If this is true, it will be very difficult to satisfy customers, as expectations can never be met or exceeded (Yuksel and Rimmington 1998). In view of this Yuksel and Rimmington (1998) raise doubts whether or not it is worthwhile including expectations in an instrument, as they may not produce responses significantly different from using the perception scores alone. Contrary to these observations, the use of expectation as a comparison standard in the measurement of customer satisfaction has wide support in the academic literature (Oliver, 1996; Halstead, Hartman and Schmidt, 1994; Gardial et al, 1994; Zeithaml et al, 1990; Anderson and Sullivan, 1990; Tse and Wilton, 1988; Kennedy and Thirkell, 1988; Oliver and Winer, 1987; Bearden and Teel, 1983).

The basic assumption in the expectancy-disconfirmation paradigm is that a customer must have pre-purchase expectations to be able to experience disconfirmation of those expectations. If customers do not have well-formed expectations, researchers contend that such a measurement of expectations and thus disconfirmation may not be valid (Halstead, Hartman and Schmidt, 1994). In other words a lack of experience with a service or lack of familiarity with a destination may cause expectations to be tentative and uncertain (Crompton and Love, 1995).
Wider experience on the other hand seems to foster more realistic expectations. As noted by Westerbrook and Newman (1978), people with extensive travel experience developed more-realistic expectations regarding trips and gave greater satisfaction ratings than did people without previous experience. The same would apply to postgraduate students who have had prior exposure to university education and therefore would form realistic expectations of the service delivery of the university.

Despite many criticisms, the expectancy-disconfirmation paradigm remains a popular and accepted framework for measuring satisfaction. Yuksel and Rimmington (1998), in their research employing a variety of techniques concluded that though the inferred method of expectancy-disconfirmation paradigm is intuitively appealing, the calculated difference scores do not provide adequate information in predicting behavioural intentions. It is held that the difference scores (difference between expectation and perception of performance) do not present complete information on the varying degrees of satisfaction levels of customers (Buttle, 1996; Brown et al., 1993). Identifying the degree to which the customer is satisfied provides a greater insight into the understanding of satisfaction.

To this end, the present study uses satisfaction scores derived from a ratio method of calculation to complement the difference (gap) scores to measure CS/D. The measurements used in this study are therefore based on three different satisfaction scores: the raw difference (gap) score, the arithmetic average ratio score, and geometric average of the ratio score, following the weighted average concept of SERVQUAL approach (Parasuraman et al., 1991 and 1985). The calculation of these scores is explained in section 4.14.3.

3.6. SERVQUAL

The measurement of service quality has attracted a significant interest among marketing practitioners and researchers over the past two decades (Furrer, Liu and Sudharshan, 2000). In their pioneering study on service quality, Parasuraman et al (1985) developed the instrument SERVQUAL to measure service quality. The construct of service quality is defined in terms of 'perceived' quality - a customers'
judgement about the entity's overall excellence or superiority - an attitude that comes from a comparison of expectations and perceived performance (Llosa et al, 1998).

Since its introduction, SERVQUAL has been widely acclaimed as a major contribution to academic and particularly marketing research literature (Furrer et al, 2000). SERVQUAL was originally used to assess customer perceptions of service quality in service and retailing organisations (Parasuraman et al, 1988). It was presented as a synthetic scale with a correct level of reliability and validity useful in many service situations. The scale comprised two matched scales of 22 items, each describing expectations for a particular service category and then perceptions of a particular service provider (Bearden and Netemeyer, 1996). The expectations are not viewed as predictions (what is likely to happen), but as desires or wants of consumers (what should happen). Both sets of items are operationalised using a 7-point bi-polar scale labelled, Strongly Agree (7) to Strongly Disagree (1). Nearly half of the items are worded negatively with negative working indicated by (-). The scale produces scores, for the total scale and each factor, ranging between minus 6 and plus 7, where the positive scores are reflected as perceptions exceeding expectations. The quality of service is assessed through this SERVQUAL score, called the gap score computed by taking the difference for 1 to -7 scales and then averaged over the number of items either in the total scale or for each subscale (Bearden and Netemeyer, 1999). According to the authors, the service quality is then the difference between customers' perceptions and expectations (P-E) and is given by the following equation.

\[ Q = \frac{1}{22} \sum_{i=1}^{22} (P_i - E_i) \]

Where:
- \( Q \) = Perceived service quality
- \( P_i \) = Performance level perceived on attribute \( i \) for the delivered service, and
- \( E_i \) = Expected performance level on attribute \( i \) for the service generally.
- 22 represent the number of questions used.

Parasuraman et al (1988, 1991a, 1991b, 1993 and 1994) identified five dimensions of service quality. They are **tangibility**, **reliability**, **responsiveness**, **assurance** and **empathy**. Tangibility refers to the appearance of physical facilities, equipment,
personnel, and communication materials; reliability to the ability to perform the promised service accurately and dependably; responsiveness to willingness to assist customers and provide prompt service; assurance to the knowledge and courtesy of employees and their ability to convey trust and confidence; and empathy to the caring; and individualised attention given to customers. The authors assert that the SERVQUAL dimensions can be adapted to different service settings, depending on the nature of inquiry. The practical application of the measurement approach has been identified as one of the major strengths of SERVQUAL over other measures. The other strengths of SERVQUAL have been identified as:

- the reliability and validity of the scale in comparing customers' expectations and perceptions over time;
- the ability to compare own SERVQUAL scores against competitors;
- the relative importance of the five dimensions in influencing service quality perceptions;
- the potential use of measure in segmenting customers into several perceived quality segments (eg. High, Medium and Low, and the ability to analyse on the basis of (a) demographic (b) psychographic, and (c) other profiles; and
- the practical implications for companies to improve the global perception of its service quality (Furrer et al, 2000; Llosa et al, 1998).

The growing popularity of the SERVQUAL instrument among marketing practitioners and researchers is seen by the diversity of its application in research pursuits ranging from competitor analysis, segmentation, to customer profiling and covering the services, and manufacturing industries (Furrer et al, 2000). The major applications, however, were in the service industry. Table 3.1 shows the leading research using the SERVQUAL instrument, and the areas of its application.

Despite its popularity, SERVQUAL is criticised on its operational and measurement problems. These include the use of P-E difference score as a measurement of perceived quality as opposed to performance based measure (Cronin and Taylor, 1994; Carman, 1990, Koelemeijer, 1991, Churchill and Brown, 1993), the type of expectations eg. desired or adequate, which would provide different satisfaction
responses (Swan and Tranwick, 1981), the link between satisfaction and service quality (Cronin and Taylor, 1994; Teas, 1993) and the number and nature of the dimensions being inappropriate for some service industries such as product services and “pure” services (Llosa et al., 1998).

Table 3.1: Major applications of SERVQUAL

<table>
<thead>
<tr>
<th>Areas of application</th>
<th>Authors</th>
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<tbody>
<tr>
<td>Banking</td>
<td>Lassar et al., 2000; Marshall and Smith, 1999; Angur et al., 1999</td>
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<tr>
<td>Brokerage services</td>
<td>Lin and Wei, 1999</td>
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<tr>
<td>Building maintenance</td>
<td>Siu et al., 2001</td>
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<tr>
<td>Information services</td>
<td>Jiang et al., 2000; Van Dyke et al., 1999; Kettinger and Lee, 1999</td>
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<tr>
<td>Local authority services</td>
<td>Wisniewski, 2001; McFadyen et al., 2001; Donnelly and Shiu, 1999.</td>
</tr>
<tr>
<td>Market research</td>
<td>Donnelly et al., 2000</td>
</tr>
<tr>
<td>Medical and health care services</td>
<td>Dean, 1999; Curry et al., 1999; Llosa et al., 1998; Headley and Miller, 1993; O’Connor and Bowers, 1990.</td>
</tr>
<tr>
<td>Restaurant service</td>
<td>Heung et al., 2000</td>
</tr>
<tr>
<td>Retailing</td>
<td>Metha et al., 2000a, 2000b; Headley and Miller, 1999)</td>
</tr>
<tr>
<td>Shipping</td>
<td>Durvasula et al., 1999</td>
</tr>
<tr>
<td>Travel services</td>
<td>Kayanama and Black, 2000</td>
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Parasuraman et al., in 1994, responded to criticisms by some adjustments to the scale and its operation. On the issue of a performance based measure in preference to the disconfirmation based measure, argued that although the practice of measuring only perceptions to determine service quality is widespread, such a practice does not necessarily support the superiority of a performance based measure. This is because measurements that incorporate customer expectations provide richer information and have more diagnostic value. Conceding that there is a confusion with regard to the causal relationship between customer satisfaction and service quality, Parasuraman et al. (1994), acknowledge that recent research evidence support the view that service quality is an antecedent of customer satisfaction. Further, in regard to this type of comparison standard for measuring service quality, it is argued that the issue of
comparison norms and their interpretation still remains unresolved and is being examined by many researchers.

The instrument used in the present study is an adaptation of SERVQUAL with refinements addressing the criticisms in the literature.


In developing a model for post-choice satisfaction among international students, this study treats post-consumption evaluation as a function of the initial choice decision, pre-choice variables (such as expectations), and post-choice responses (such as perceived performance and the gap between performance and expectations).

The two types of post-consumption evaluations that have received much attention in the consumer behaviour literature are overall evaluations of product or service quality and satisfaction judgement (Oliver, 1996). In this thesis the focus is on the satisfaction in relation to the university as a study destination.

Post consumption evaluations are of interest because they influence consumers’ repeat purchases, as well as the purchases of other potential consumers, through WOM (Harvis et al, 2000; Guolla, 1999; Bristor, 1990). The satisfied students are likely to engage in positive WOM, recommend the institution to their friends and relatives, and enrol for additional courses or return as graduate students.

The universities are facing the challenge of rising student expectations of quality, service and value for money, and the need to increase the satisfaction level of their students to retain and improve international student numbers. Post-consumption evaluations assist universities to identify genuine student concerns regarding the performance of educational services and to develop strategic responses through programs that satisfy the exact needs of students.

In modelling the determinants of post-consumption evaluations, this study draws on previous research by Oliver (1980, 1996), Lawley and Blight (1997); Bolton and
Drew (1991) and others, on the basis that post consumption evaluations are influenced by pre-choice expectations, perceived performance and disconfirmation (gap between performance and expectations). No modelling of WOM is attempted in the study.

Figure 3.5 below shows a 3 stage preliminary model developed for the study. It is based on the confirmation/disconfirmation of perceptions of service quality variables that influence the satisfaction of the international postgraduate students from China, India, Indonesia and Thailand. The first phase involves the identification of the variables, while the second phase examines the correlation and co-efficiency of these variables, leading to factors of importance that result in CS/D. The third phase accounts for the final outcome of CS/D through the process of confirmation/disconfirmation of perceptions of service performance of the university, measuring the gap between expectations and perceptions. A total of 36 variables are included in the model identified from the literature and focus group interviews, which are described in chapter 4. The process of selection of these variables is also discussed in section 4.6.

Figure 3.5. Preliminary Model of Post Choice satisfaction among International Post Graduate students from Asia.
3.8. Hypotheses

Several hypotheses are developed to address the main research question and are tested using the above model. The rationale and the purpose of the hypotheses are outlined below.

Halstead and Hartman (1994) propose that the higher education setting is comprised of a variety of service inputs to produce the entire education process. The ability of university students to form pre-experience comparison standard for an unfamiliar, complex service that contains multiple sources of satisfaction can vary. Moreover, the effect of cultural differences in the evaluation of service encounters and levels of satisfaction have been reported by Furrer et al., 2000; Mattila, 1999; Kwan, 1999; Donthu and Yoo, 1998; and Winsted, 1997. Given that the sample of student groups come from different cultural backgrounds, it is likely that the evaluation of the university services will vary among the postgraduate international students from China, India, Indonesia and Thailand and thus the likelihood of differences in the rating of and the importance placed on individual variables, and consequently in the level of satisfaction, is high. This is the justification for the first three hypotheses, which are presented below.

H1: There are differences in the rating of variables that influence CS/D by student groups.

H2: There are differences in the importance of the factors relating to CS/D by student groups.

H3: The level of satisfaction of international postgraduate students from Asia varies significantly between countries of origin.

The fourth hypothesis is developed to explain the relationship between the level of satisfaction and different universities. Many satisfaction studies in international education have acknowledged several factors to influence the choice of a particular university by international students (Townley, 2001; Guolla, 1999; Kwan, 1999). These factors range from the reputation of the university, academic quality, computer
and library facilities, diversity and appropriateness of study programs, tuition fees and overall customer value provided by the institution, supported by positive WOM (Harvis et al., 2000; Guolla, 1999). Mazzarol (1998) found that factors like the possession of international strategic alliances or coalitions and offshore teaching programs, among others, provide universities with a competitive edge to become more attractive and marketable to international students. He also reported that there were variances in the delivery of services by universities depending on their size, capacity, customer orientation, which would have an impact on student satisfaction.

Given the likely variances in the delivery of services by the five Victorian universities chosen for this study, and the variances in the post-choice evaluation of students from the target countries, it is presupposed that the satisfaction levels of students in the universities will differ according to the nature of services provided by each university. Hence the following hypothesis:

**H4: The level of satisfaction of international postgraduate students from four Asian countries varies significantly between universities.**

The present study examines the relationship between the age and the duration (length) of enrolment (measured by the number of semesters completed) and the level of satisfaction of students. The following age categories were operationalised: between 21-24 years, between 25-29 years, 30-34 years and 35 years and over. Rautopuro and Vaisanen (2001), in their study of non-traditional students at a Scandinavian university, found that the university experience differs between age groups, in particular between the non-traditional age (older or mature) students and their younger counterparts. Mature students tend to be more attentive in their studies and moderate in their behaviour (Kwan, 1999). Married students are believed to share these characteristics.

The length of the university experience is a contributory factor to the variance in the level of satisfaction as it is accepted that satisfaction formation is a cumulative experience (Sue, 2001; Boulding and Kalra (1993). Thus, the following three (H5, H7, and H8) hypotheses are constructed.
H5: There is a positive relationship between the age of students and the level of satisfaction of international postgraduate students from Asia.

H7 There is a relationship between the marital status and the level of satisfaction of international postgraduate students from Asia.

H8: There is a relationship between the semester of the course and the level of satisfaction of international postgraduate students from Asia.

The present study also investigates the impact of the gender of the postgraduate international students on the level of satisfaction. Deux and Major (1987) argued that the behaviour of men and women differ widely as a function of personal choice, although they are relatively equal in their potentialities for most behaviours. Bern (1981) also acknowledged the differences in the behaviour of men and women in many situations. In light of the foregoing explanation, the following hypothesis is put forth:

H6: The level of satisfaction of international postgraduate students from Asia varies between male and female students.

Kwan (1999) examined the effects of course characteristics and the level of course (degree) on student evaluations. The results indicated that there were substantive differences in the academic discipline groups and the levels of the courses in terms of the ratings given on service quality. The present study examines the relationship between the field of study and the type (or level) of degree and student satisfaction. The categories of fields of study are based on DETYA classifications, while the level of study (or type of degree) was based on five recognised classifications. The investigation is aimed at identifying the potential differences in student satisfaction between these classifications. Hence the following two hypotheses (H9 and H10) are advanced.

H9: The level satisfaction of international postgraduate students from Asia varies with the field of study.
**H10**: The level of satisfaction of international postgraduate students from Asia varies with the type of degree.

International postgraduate students finance their studies from two major sources. The first source is private funding either from the family or from personal finances. The second source is third party funding, either from an employer sponsorship or a government scholarship. The present study aims to identify the relationship between these sources of funds and student satisfaction. Accordingly, the following hypothesis (H11) is submitted.

**H11**: The level of satisfaction of international postgraduate students from Asia varies with the source of funding.

### 3.9. Summary

This chapter has presented the theoretical and conceptual framework associated with the study based on past research. A preliminary model of post choice satisfaction was developed as a basis of analysis and dominant concepts surrounding the model were discussed. A detailed analysis of two dominant theoretical concepts - expectations and perceptions - were undertaken as part of an overview of the expectancy confirmation and disconfirmation paradigm, and the SERVQUAL measure of service quality, which form the basis of this study. Eleven hypotheses were developed to address the research question and will be tested in the final model of post-choice satisfaction.

The following chapter will discuss the method employed for the study and the preliminary analysis of the data.