ANTECEDENTS AND CONSEQUENCES OF SERVICE QUALITY IN A HIGHER EDUCATION CONTEXT: A QUALITATIVE RESEARCH APPROACH

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Abstract

The study aims to explore the perception of students with regard to critical antecedents, dimensions and outcomes of service quality in the context of a university in Australia. The study used qualitative research method to derive a theoretical model. Three focus group discussions with nineteen students were conducted at the main campus of Central Queensland University (CQUni), Australia. The focus group findings show that the critical antecedents to perceived service quality are information and past experience. Students perceive service quality as a set of attributes and that they evaluate it cognitively. Satisfaction and trust are found to have direct and positive relationships with service quality as consequences. As revealed from focus group discussions, all of the interrelationships among the themes developed are positive. There are several practical implications of this study. Higher education managers should pay particular attention to develop a concrete information structure for potential students through promise and information structure. The authority should also develop and maintain good relationships with present and previous students, local and regional school authorities, and other stakeholders. They should continuously upgrade the performance of the service attributes in order to improve students' experience, spread word-of-mouth, provide satisfaction, and build trust. This study shows that there are two streams to study service quality, antecedent approach and dimensional approach. This study develops a theoretical model, which is the first of its kind, in higher education marketing literature. This research considered three focus group discussions and a single university. Future studies should expand the scope of the research.

Keywords – Information, Past Experience, Service Quality, Satisfaction, Trust, Higher Education.

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Introduction

A number of studies in service quality have enriched the services marketing domain over the last three decades or so. Most of these studies have concentrated their findings on the dimensionalities of service quality across industries, cultures and firms. These studies develop scales to gauge the quality. Amongst these, the widely used scale is the SERVQUAL conceptualized on expectancy–disconfirmation paradigm. However, only a few studies (Dabholkar, Shepherd, & Thorpe, 2000; Gounaris, Stathakopoulos, & Athanassopoulos, 2003) have focused attention on the antecedents to service quality. With regard to consequences of service quality in commercial enterprises, several models are developed in literature (Cassel & Eklöf, 2001; Cronin, Brady, & Hult, 2000; Fornell, Johnson, Anderson, Cha, & Bryant, 1996).

The dimensions of service quality varies by the thoughts of two different schools, Nordic (Grönroos, 1982, 1984) school and American school (Parasuraman, Zeithaml, & Berry, 1985, 1988), by industries (Lee, Lee, & Yoo, 2000), by service types (Babakus & Boller, 1992), by culture (Furrer, Liu, & Sudharshan, 2000) or even by providers or firms in the same industry (Abdullah, 2005; Sureshchandar, Rajendran, & Kamalanabhan, 2001; Zeithaml, Berry, & Parasuraman, 1993). The dimensional approach of service quality provides an understanding of quality dimensions and its relevant attributes. In contrast, the antecedent framework provides an insight of how consumers view service quality as a whole and how this view contribute predicting their behavior (Dabholkar et al., 2000). Consequences of service quality vary across study perspective. For example, economic value may play a significant role as a consequence of service quality for a commercial product. However, this might have little significance as a consequence of service quality for emergency services compared to emotional value.

Although universities and commercial enterprises are two different industries, studies in higher education empirically examine the models that are developed in commercial settings. Therefore, these models do not find cause and effect relationships among some of the variables in the context of higher education sector (see, for example, R. Brown & Mazzarol, 2009; Chitty & Soutar, 2004). As higher education provision is a service and students are expected to fund their educational expenses, it would seem appropriate that universities make a shift from being product-led, i.e. relying on the product to sell, towards a more "customer-led" approach (Angell, Heffernan, & Megicks, 2008). It has been found that when making the uncertain and high-risk decision of choosing a university, the student looks for evidence of service quality (Donaldson & McNicholas, 2004). This confirms the importance of service quality in the university's functions. Ignorance of the competitive nature of attracting students, along with the importance of measuring the service quality, will ultimately be at the disadvantage of the institution (Angell et al., 2008). Thus, marketing approaches to the higher education domain may provide important outcomes.

This study aims to explore the critical antecedents, dimensions and outcomes of service quality, as perceived by the students, in the context of a higher education institute at Australia. This study is worth doing for several reasons. Firstly, this research is the first attempt of its kind. Second, this study will be contributing not only to the higher education domain in Australia but also to the literature in higher education marketing. Third, we employ qualitative research method in order to

comprehend the insights of the responses with the consequence of establishing a theoretical model.

Literature Review

The Dimensional Approach of Service Quality

Most of the service quality literatures in the last few decades focused on the dimensional approach. As a result, a number of measures evolved; namely Grönroos model (Grönroos, 1982, 1984), SERVQUAL (Parasuraman et al., 1985, 1988) and SERVPERF (Cronin & Taylor, 1992, 1994). Amongst these models, SERVQUAL and SERVPERF scales attempted to find a better measure for service quality from service specific perspective. These models were developed based on commercial services.

Parasuraman et al.'s (1988) SERVQUAL scale defined quality as perception-minus-expectation. There are five dimensions and twenty-two items. These dimensions are reliability, assurance, tangibles, empathy and responsiveness. Although the SERVQUAL has been empirically examined widely, it has also been criticized for a number of reasons. Research demonstrated serious conceptual and operational flaws in perception-minus-expectation measure especially with respect to its theoretical justification and interpretation of the framework (T. J. Brown, Churchill, & Peter, 1993; Cronin & Taylor, 1992, 1994; Lee et al., 2000; Teas, 1993, 1994). Thus, in the revised SERVQUAL scale the authors incorporated 'would' perspective instead of 'should' perspective in all of its expectation instruments to reduce high expectation scores and to make the expectation instruments more relevant to predictive expectations instead of consumers' normative expectations or ideal standards. They also replaced negatively worded items with positive words (see, for example, Parasuraman, Zeithaml, & Berry, 1991c).

The subsequent developments in service quality measures followed the SERVQUAL approach. One of such developments was the SERVPERF scale, also known as performance–only scale (Cronin & Taylor, 1992, 1994). The SERVPERF scale is the unweighted perception components of the SERVQUAL scale, which consists of 22 perception items and excludes any consideration of expectations. The performance–only construct, the SERVPERF, demonstrated its relative superiority over the SERVQUAL scale in terms of statistical analysis (see, for example, Cronin & Taylor, 1992, 1994). Although the SERVPERF scale is based on customer scores evaluating perceived service performance, it seems reasonable to assume that such judgments of customers are formulated with reference to some form of expectations. Expectations, regardless of whether they are measured explicitly or not, are likely to form an anchor for quality assessment (Devlin, Gwynne, & Ennew, 2002).

Empirical studies on service quality in terms of relative superiority between the SERVQUAL scale and the SERVPERF scale are examined. On the one hand, the studies find that the SERVPERF scale is a better alternative than the SERVQUAL scale (Babakus & Boller, 1992; Brady, Cronin, & Brand, 2002; T. J. Brown et al., 1993; Jain & Gupta, 2004; Zhou, 2004). On the other hand, the SERVQUAL has received much attention as a measure of service quality (Chebat, Filiatrault, Gelinas-Chebat, & Vaninsky, 1995; Furrer et al., 2000; Zeithaml & Bitner, 2003). A recent

study suggests that both scales are adequate and equally valid predictors of overall service quality (Carrillat, Jaramillo, & Mulki, 2007).

The dimensional study of service quality still dominates the current literature. There are critical features of the dimensional approach to service quality. Firstly, this approach is a service specific approach, i.e. the direction is from service to consumer. The research instruments are designed considering specific features and natures of the service, and its delivery. Secondly, the resulting dimensions vary based on service types, firms or provider, industry and even culture. Researchers have failed to replicate the five original dimensions of SERVQUAL or SERVPERF scales, namely, reliability, responsiveness, tangibility, assurance and empathy (Carrillat et al., 2007; White & Schneider, 2000). Thirdly, the dimensional approach focuses on service features and ask consumers to rate them considering their expectations and/or perception. As a result, literatures conceptualize service quality based on varied findings of dimensional approach. This underscores that service quality scales need to be adapted to the study context (Carman, 1990; Carrillat et al., 2007). The major benefit of using the dimensional approach is that it gives an understanding of the service features and their relevant dimensions.

Despite the development in service quality literature specially with regard to dimensional approach, one of the dominant review in service quality literature stated that "there does not seem to be a well-accepted conceptual definition and model of service quality nor there is any generally accepted operational definition of how to measure service quality" (Seth, Deshmukh, & Vrat, 2005, p. 933). In the extant literatures, little consensus has been found as to which measure is universally suitable (Angell et al., 2008) and which of the definitions for service quality is appropriate (Wicks & Roethlein, 2009). As a result, there is a scope to examine dimensionalities of service quality across industries. Particularly, this study is designed to capture the antecedents, dimensions and consequences of service quality in the context of a higher education institution at Australia. The following section discusses the antecedent approach to study service quality.

The Antecedent Approach to Service Quality

The antecedent approach to study service quality received a little attention in academic literature. For example, one study demonstrated that service quality is influenced by four of its dimensions, namely reliability, personal attention, comfort and features (Dabholkar et al., 2000). This study referred these dimensions as the antecedents to service quality. This longitudinal study used three measures, namely perception-only measure; measured disconfirmation, i.e. explicit comparisons are made in the instruments after the service received; and computed disconfirmation, i.e. expectations (before the service experience)–minus–perceptions (after the service experience). The findings stated that perception measure is superior over computed disconfirmation and measured disconfirmation. Thus, this study recommended that if the objective of the study is to predict service quality or to gauge its determinants, perception-only measure should be used rather than disconfirmation. Although Dabholkar et al. (2000) stated that the four dimensions are the four antecedents to service quality; these findings may not be applicable across service types, firms, service industries and cultures in general. This is because service quality is a contextual issue, its dimensions vary widely. Moreover, the bulk of recent studies still

considers these to be the dimensions of service quality instead of antecedents (see, for example, Bigne, Molinar, & Sanchez, 2003; Kilbourne, Duffy, Duffy, & Giarchi, 2004; Soyoung & Byoungho, 2002; Sureshchandar et al., 2001; Swanson & Davis, 2003).

Research on customer specific antecedents to service quality also received a little attention (Gounaris et al., 2003). The antecedent approach starts from customers. Customers' perception of service quality are affected by factors such as communications from salespeople, social referrals, various types of information collected, and the credence consumers develop towards a service organization (Gounaris et al., 2003; Kangis & Passa, 1997). Gounaris et al. (2003) stated that perceived service quality is a function of customer and company specific antecedents. This study considered word-of-mouth communication as one of the four antecedents consisting of three indicators. However, two of the three indicators of word-of-mouth were seriously lacking from content and face validity. These were 'family bank' and 'get information from advertising campaign'. Therefore, the construct 'word-of-mouth' as an antecedent to service quality might not be conceptually sound. The research on antecedent approach to service quality has been lacking in the context of higher education. However, a number of studies on service quality in higher education context focused on dimensionalities and consequences. In the following, we discuss the critical service quality research in the higher education domain.

Service Quality Research in Higher Education

Service quality research in higher education sector is new, at least, compared to that of commercial sector. Most of the quality models that are commonly practiced in the business world have been adapted and used in the education sector (Chua, 2004). Service quality research in higher education develops relevant scales conceptualizing either SERVQUAL scale or SERVPERF scale. One such study reports that SERVQUAL scale is reliable and valid when it is applied to a particular classroom environment (Stodnick & Rogers, 2008). However, a number of studies (see, for example, Cuthbert, 1996a, 1996b; O'Neill, 2003; Oldfield & Baron, 2000; Sahney, Banwet, & Karunes, 2004) examine SERVQUAL scale in university environment and none of those studies are able to replicate five-factor structure of the SERVQUAL scale. Similar to the findings of commercial enterprises, one study finds that the SERVPERF scale outperforms against its counterpart, the SERVQUAL scale, in the context of higher education (Li & Kaye, 1998).

In the context of dimensionalities of service quality in higher education sector, the HEdPERF measure (Abdullah, 2005; 2006a, 2006b, 2006c) and the PHEd measure (Sultan & Wong, 2010) may be considered as comprehensive scales as these measures include a broad range of service attributes in the context of higher education. The HEdPERF measure and the PHEd measure were conceptualized on the performance-only scale. The HEdPERF has 41 attributes loaded on four dimensions, namely, non-academic aspects, academic aspect, reliability and empathy to measure service quality. The PHEd measure has 67 attributes loaded on eight dimensions. These are dependability, effectiveness, capability, efficiency, competencies, assurance, unusual situation management, and semester and syllabus. Both of these measures, the HEdPERF and the PHEd, were developed focusing on the higher education sector of

Malaysia and Japan, respectively. The following table is a brief summary of the dimensionalities of service quality research in higher education.

Table 1: Service quality dimensions in higher education

Author, Date	Items	Items and Dimensions	Country/University
(Sultan & Wong, 2010)	67 Items	Dependability, effectiveness, capability, efficiency, competencies, assurance, unusual situation management and semester–syllabus	Japan
(Rojas-Me´ndez, Vasquez-Parraga, Kara, & Cerda-Urrutia, 2009)	18 Items	Instructors, program director, secretaries, service attitude and competence development.	Chilean University
(Stodnick & Rogers, 2008) *	18 Items	Reliability, Assurance, Tangibles, Empathy and Responsiveness	One course, Southwestern University, USA
(Angell et al., 2008)	18 Items	Academic, leisure, industry links and cost	One university, UK
(Smith, Smith, & Clarke, 2007)*	22 Items	Reliability, Assurance, Tangibles, Empathy and Responsiveness	IT Department, one university, UK
(Abdullah, 2006c)	41 Items	Non-academic, academic, reputation, access, program and understanding	Malaysia
(Abdullah, 2005; 2006a, 2006b)	35 Items	Non-academic, academic, reliability and empathy	Malaysia
(Kwan & Ng, 1999)	31 Items	Course content, concern for students, facilities, assessment, medium of instruction, social activities and people.	China and Hong Kong
(Li & Kaye, 1998)*	27 Items	Reliability, Assurance, Tangibles, Empathy and Responsiveness	One university, UK
(Joseph & Joseph, 1997)	—	Program, academic reputation, physical aspects, career opportunities, location, time and other	New Zealand
(LeBlanc & Nguyen, 1997)	38 Items	Contact personnel/faculty, contact personnel/ administration, responsiveness, reputation, curriculum, physical evidence and access to facilities	Business School, one university, Canada

*Items were not exactly loaded under each of the dimensions as claimed in the SERVQUAL scale.

The findings of these studies show that developing a service quality measure depends on study perspective. In this context, there is a gap in literature with regard to the development of dimensionalities of service quality in the context of Australian higher education sector. Service quality and its predictability in terms of students' satisfaction are examined in the higher education sector (Stodnick & Rogers, 2008). However, a number of studies used the European Customer Satisfaction Index (ECSI) model in the higher education domain (Alves & Raposo, 2007; R. Brown & Mazzarol, 2009; Chitty & Soutar, 2004; Martensen, Grønholdt, Eskildsen, & Kristensen, 2000). The findings of these studies are inconclusive in that the replication of the ECSI model does not produce any decisive results in the context of higher education. This is because the interrelationships among a number of constructs of the ECSI model in the context of higher education appear statistically insignificant and negative. In addition, these empirical studies hypothesized that 'the university image' is in-built with a university and demonstrated that image affects value, satisfaction and loyalty. However, a number of studies argued that image is build mainly by quality (Grönroos, 1984), and is a consequence of value, quality (Nguyen & LeBlanc, 1998) and satisfaction (M. Johnson, Gustafsson, Andreassen, Lervik, & Cha, 2001). Johnson et al. (2001) stated that the effect of customer satisfaction on image reflects both the degree to which consumption experience enhances image and the consistency of customers' experiences over time. Higher education institutes are distinct service organizations compared to other commercial service organizations and thus, implementing the ECSI model in the context of higher education needs a separate attention.

In summary of the above literature review, first, we find that there is a research gap to explore the antecedents of service quality in a higher education context. Second, there is no study that focuses on dimensionalities of service quality in the context of Australian higher education sector. Third, despite the examination of the ECSI model in the higher education domain, there is a further scope to reinvestigate the consequences of service quality in the context of higher education. There is also an unclear understanding between dimensional study of service quality and antecedent approach to study service quality. Thus, there are research potentials to address these critical issues with empirical evidences in the context of higher education service quality. To address these gaps we adopted qualitative research method as a primary approach in order to comprehend the phenomena in terms of CQUni, Australia.

Research Method

The approach adopted in this research was an exploratory qualitative method and thus, this research employed focus group technique. There were several reasons for employing focus group technique. These include to study the perceptions of students with regard to critical antecedents, natures, consequences of perceived service quality, and their causal relationships with an aim to develop a research model.

Selection of focus group members

The participants for focus group discussions were students studying at the CQUni, Rockhampton, Australia. The participants were divided into distinct segments based on their level of study, for example, undergraduate and postgraduate including masters and doctoral students. This was done in order to minimize the dominance of

senior student over junior student, and to ensure interactive participation among the group members. Research examining students' choice processes of university course selection used 22 students as focus group members (C. Brown, Varley, & Pal, 2009). Although there is no rule of thumb about the number of members in a focus group, one study suggested that "a group consisting of 5–10 respondents is appropriate (Krueger & Casey, 2000, p. 10)." A number of studies also suggested that several (3–4) focus groups are convened depending on distinct population segments (see, for example, Morgan, 1988; Stewart, Shamdasani, & Rook, 2007). Thus, the present study included five, eight and six undergraduate, masters and doctoral students, respectively, in three focus group discussions, and at the main campus due to budget constraints and time limitations. In the present study, all of the students were having at least six months of studying experience with CQUni, and were selected based on convenience and purposive sampling techniques. We ensure representative members of the larger population in each of these groups following the suggestions of several studies (Morgan, 1997; Stewart & Shamdasani, 1990; Stewart et al., 2007).

Designing the topic for discussion

The focus group discussions are exploratory in nature. One of the aims of focus group discussion is to generate relevant themes and determining their relationships. Using a facilitator or moderator for this type of investigation may bias the findings in that the cues provided by the moderator, knowingly or unknowingly, inform the group what information is desired and can get group consensus on a particular issue (Stewart et al., 2007). In addition, hiring a moderator is time consuming and increase the cost of the research project substantially (Morgan, 1997). Thus, the focus group interviews were conducted by the principal researcher in a non–directive and unstructured fashion. Broad questions were asked to each of these groups (Zeithaml et al., 1993). First, the respondents were explained about the research aims, and the tasks they would perform during focus group discussion. Second, broad and open-ended questions were posed; including what affects quality of services in terms of the CQUni prior to enrolment? How do they evaluate service quality in terms of their university? What are the critical quality aspects of this university? What are the critical consequences in terms of service quality evaluation in the context of their university? Third, to facilitate the discussion and to keep it compact within the aim of this study, the researcher summarized the discussion when necessary during each of the interviews. This facilitated participants to focus on the content of discussions. The discussions were recorded using an electronic device. On an average, each discussion took one hour duration.

Data analysis and interpretation

The analysis of focus group data requires a great deal of judgment and care, and they depend on the research question and the purpose of focus group discussion (Morgan, 1988). For the purpose of this study, a thorough content analysis is employed. Krippendorff (2004, pp. 3-11) stated that "content analysis entails a systematic reading of a body of texts, images and symbolic matters, not necessary from an author's or user's perspective….it is used when verbal data are gathered in the form of answers to open ended interview questions, focus group conversation…".

The content analysis was conducted through manual procedures. The first stage included identifying the recorded information that were important for developing

themes and the interrelationships following the theoretical and conceptual suggestions (Krippendorff, 2004; Neuendorf, 2005). In this stage of analysis, transcriptions were prepared from the recorded focus group discussions onto paper. We cleaned and edited the manuscript by eliminating typographical errors and contradictions in the text that were irrelevant with the central issue of the study. The second stage followed coding and categorizing that included assigning key words suitable for a section of text, giving a particular meaning to or labelling a section of the material (Sarantakos, 1997). Thus, the texts were classified or categorized. The coding process not only involved categorizing the chunks of texts but also included memoing the data. Memo is the notes, backgrounds, ideas or thoughts about coding data (Babbie, 2007; Sarantakos, 1997). The third stage was concept mapping. Concept mapping is the display of concepts and their interrelations to formulate a theory (Babbie, 2007). It also helps strengthening the theoretical model. The theoretical model was purified following a two step procedures. First, each researcher independently reviewed the transcripts and developed a list of constructs, and formulated the interrelationships among them. Second, the researchers shared their inferences and finally developed the theoretical model and key hypotheses.

Findings and Research Implications

Demography of the Respondents

Demography of the respondents is important in qualitative analyses. This is because it validates the responses collected to achieve research objective. The ages of the undergraduate and postgraduate students were 19–21 and 26–38, respectively. In these discussions, total female to male ratio was 5:14, and they all were studying more than six months at the CQUni.

Critical Antecedents to Service Quality

Information: Studies ascribed that formal communications from various sources, including advertisements, leaflets, and related articles in magazines and newspapers, affect the way customers interpret ambiguous evidence concerning quality (Deighton, 1984; Devlin et al., 2002; Mathews, 1994). Devlin et al. (2002) stated that information provides opportunities to influence assessment of service quality and customer satisfaction. The extant literature is lacking to explore the nexus between information and service quality.

The focus groups were asked to discuss the factors that affect quality of services in terms of their university prior to enrolment. Respondents stated that information affects the level of quality judgment. They also underlined that the information provided by the institution should be true, want satisfying and reliable. The following are the specific quotes of focus groups' participants.

> "If the product is new and there is no set standard, in that case, the level of quality in terms of my needs would be very much influenced by whatever product related promotional materials are being discharged by the supplier" (Doctoral student, age 38).
> "The underlying factors affecting quality are adequate information and its genuineness" (Doctoral student, age 34).

"…delivered promise should be equal to the delivered service" (Undergraduate student, age 21).

The explicit or implicit promises embedded in provided information and/or marketing communication plays a vital role to form and evaluate quality. Perceived quality is based on one's experience and is a function of attitude (Sultan & Wong, 2010). Favourable perceived quality is dependent on the extent of keeping promises and authenticity of provided information. Quality evaluation starts from provided information and promise. Thus, perceived quality is affected by information and promise. Marketers' task is to design the information structure and promise focusing on those service attributes that are most desired by the target group. Based on the focus group discussions, we find information as promise, information communicated through marketing tools, genuineness of information, and desired information in the context of a higher education. Therefore:

H1: There is a positive relationship between information received by the students and their evaluation of service quality.

Unlike the products, services have special characteristics. They are heterogeneity, perishability, intangibility, inseparability (Zeithaml, Parasuraman, & Berry, 1985). Due to the special nature of services, it is imperative to focus on students' pre-enrolment information structure, which can be strengthened through good word-of-mouth of present students and previous alumnae, promise that the institution can keep, adequate and specific information and its genuineness, and above all focusing on what students' desire in terms of educational information. Because quality is affected by reliable information, the marketing communication message should carefully design the promises. Therefore, managers of higher education institute should concentrate their attentions to these particular areas, and allocate available resources in order to strengthen students' information structure prior to enrolment and optimize the outcomes.

Past Experience: Studies find that past experience helps forming service expectations (Devlin et al., 2002; Gounaris et al., 2003; Zeithaml et al., 1993). However, inexperience of service encounter or unrealistic expectations may results to fuzzy prediction of service quality standards. In the extant literature, the relationship between past experience and service quality is unexplored.

The focus group findings stated that past experience of students had been one of the important issues that affect service quality assessment. Students' recent experience of meeting or interacting with staff of a university also affects service quality judgment. Students use previous study experience as a fuzzy input to predict service quality of a potential university due to mainly their lack of experience with that potential university. This may result to build a set of unrealistic expectations about service quality of a university. The following quotes are relevant to past experience and its relationship with perception of service quality.

"…before coming to this university, I had only high school experience. From that point, it is hard to say. But at least it tells that we would learn some advanced stuff at the university" (Undergraduate student, age 21).

"I've attended three different universities in Australia. Many people would agree that out of these three…University is the prestigious. But why I didn't go back to that university? So, considering location,

proximity and recent experience with staff, I'm keep going with the Central Queensland University" (Postgraduate student, age 34).

Past experience is one of the key issues that play a vital role to form quality. This is because during service encounter customers' evaluate their past experience of receiving the same service with the present one. They tend to compare similar type of service attributes received from various providers. However, higher education service attributes are different compared to commercial service attributes. It is hard to compare the service delivery processes in a higher education setting. For example, it is fairly common practice that two lecturers would create and deploy teaching techniques, methods and environment for a course in an individualistic manner for the same group of students in an undergraduate program. This signifies that students' experience with various staff would be different and that this is often incomparable. However, the common ground, in this respect, is that students' experience can be improved continuously though there are significant differences among the service personnel. This leads to positive and favourable evaluation of service quality. Referring to focus group findings of the present study, the evidences suggest that past experience is students' previous educational experience, and their interaction and relationships with staff and/or the university prior to enrolment in a higher education context. This leads to the second hypothesis.

> **H2:** There is a positive relationship between past experience of the students and perception of service quality.

The higher education institutions should continuously improve students' experience with the service that they receive, and should focus on maintaining relationships. As the high school students might build a fuzzy set of assumptions about higher education services due to absence of concrete experience, the university should maintain relationships with local and regional high schools, and invite high school teachers and students to participate in short courses, short visits, meetings and symposiums. This might increase enrolments and impact favourably on quality judgment.

Service Quality

Service quality is defined as the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs (R. Johnson & Winchell, 1988). Service quality has also been viewed as a critical determinant of competitiveness (Lewis, 1989), as a source of lasting competitive advantage through service differentiation (Moore, 1987), and as a driver of corporate financial and marketing performance (Buttle, 1996). While in commercial sector ISO certification may assure customers about the standard of a product and/or service, the higher education sector assures students through accreditations of the programs/courses, ranking of the university, students' commendations and career prospects. In order to understand the nature of service quality in a higher education context, the focus groups were asked how they evaluate service quality in terms of their university. As revealed from focus group findings, the assessment of quality of service is a cognitive process. Meaning that service quality assessment is a psychological result of perception, learning, reasoning and understanding of the service attributes. The specific quote is as follows:

> "I think we add-up the issues like recent experience, present performance and our interests in a subconscious manner. This is a psychological process of understanding" (Postgraduate student, age 33).

It is stated earlier that evaluation of service quality is an experience-based norm. Students' past experience, desired attributes and provided information play a vital role to form and evaluate service quality in the context of higher education. Although a number of strategies are undertaken by the universities to assure students about the service performance, these strategies may not be effective unless students' experience with service attributes are favourable. Thus, students' experience (or perception) of service attributes are important for evaluating service quality of a university.

The focus groups were also asked to discuss the critical quality aspects of services of their university in order to fully comprehend the nature of service quality. The previous studies in dimensionalities of service quality in the context of higher education find a number of service quality attributes relevant to academic, administrative, course administration and the like (see Table 1). Based on the findings of the focus group data, the present study mainly classify these into three categories, academic, administrative and support functions. The following are the specific quotes relevant to academic service quality.

> "I think the most important is the quality of lecturers and how entertaining they are. The lecture should not be boring and after lecture availability is also important" (Undergraduate student, age 21).
> "...they should have research expertise and intellectual capacity to conduct research and supervise the research students" (Doctoral student, age 35).

The academic service quality refers to those service attributes that are relevant to teaching quality and ability, course development and teacher–student relationships in order to provide core academic values and/or benefits to the students. Students prefer the lecture to be interactive, understandable, practical and entertaining. The consultancies provided by the lecturers are also important to the students. Thus, after lecture availability, responding through email or phone may prove to be caring. The design of each lecture should be such that it can prove to be new in knowledge and effective to the students each day they attend the lecture. The research expertise and supervision capacity, and a track record of publications of the lecturer are also vital for effective postgraduate programs. Thus, these critical service attributes provide the core benefits/values to the students during their enrolment.

The administrative service quality has similar importance in overall assessment of service quality in the context of higher education. The administrative staff should be skilled and be able to answer students' queries effectively. Avoiding one's responsibilities and tasks may result unfavourable overall assessment of service quality. In this regard, one student commented as follows:

> "Sometimes the staff takes time to reply to our query, and send us the common web links to search instead of addressing the queries. They should know what they are doing" (Postgraduate student, age 27).

The extant studies (Abdullah, 2005; 2006a, 2006b, 2006c; Sultan & Wong, 2010) find a number of items to measure non-academic aspects (or administrative aspects) of

service quality without proper definition. In this study, the administrative service quality refers to those service attributes that are relevant to skills and abilities of the administrative and supporting staff, and their relationships with students in order to provide smooth functioning of academic activities at a university. These are critical service attributes for providing the support services to smooth running the programs/courses.

Facilities service quality refers to those service attributes that are required to create a good higher education environment. This refers to library facilities, entertainment facilities, career counselling, transport facilities, dining facilities, access to computer and other resources, and workshops/seminar/conference. Particularly, the following are some of the specific quotes with regard to facilities service quality.

> "I face specific problem with transport services" (Undergraduate student, age 20).
> "We do not have a good dining facility here" (Undergraduate student, age 21).
> "The other important issues are whether the university holds workshops and conferences, and invites renowned people to deliver speeches" (Postgraduate student, age 26).

Thus, this study finds three categories (or dimensions) of service quality, namely, academic, administrative and facilities, in the context of CQUni. These categories are related to specific attributes of higher educational services that students encounter during their study. The findings also confirm that antecedents to service quality and dimensions of service quality are two distinct thoughts. The antecedent to service quality mainly involves those issues that students consider prior to interacting with the service. In contrast, the dimensions of service quality are related to specific features of services during service encounter.

Critical Consequences of Service Quality

Although a number of studies empirically examined the usability of the ECSI model in the higher education domain, none of those studies are able to clearly show the robustness of the ECSI model in the context of higher education (R. Brown & Mazzarol, 2009; Chitty & Soutar, 2004; Martensen et al., 2000). This motivates us to undertake the present study. Thus, the focus groups were asked to discuss the effects of service quality evaluation in the context of their university. Analysing the focus group data, we find that the critical consequences of service quality in a higher education context are satisfaction and trust. Students' trust is important in a higher education context because it is developed through experience and interaction with the university staff. Students' trust may play a vital role to have outcomes favourable to the university. The ECSI model and subsequent empirical studies examined in the higher education domain ignore the role of students' trust. The specific quotes are:

> "...if the university provides quality services the obvious outcome is our satisfaction and the next is our understanding that the University can satisfy us in future" (Undergraduate student, age 21).
> "...it is not necessary to be loyal to a university. For example, I may not come to do PhD here even if I am satisfied. Rather, if I find that lecturers moved from this university to another, I may consider that

university for my future study destination. It's all about my belief of lecturers" (Postgraduate student, age 26).

Satisfaction: Studies suggest that the critical determinant of perceived satisfaction is perceived quality (Cronin et al., 2000; Eskildsen, Kristensen, Juhl, & Østergaard, 2004; Fornell et al., 1996). However, service quality literature in higher education demonstrated that dimensions of service quality also affect students' satisfaction (Stodnick & Rogers, 2008). Satisfaction (or dissatisfaction) is not inherent in the product or service instead it is the consumer's perceptions of the attributes of the product or service (Boshoff & Gray, 2004). The focus group findings stated that satisfaction is affected by the performance of service attributes. The students are satisfied if service attributes perform well. Thus, these findings are indifferent to the extant literatures. The concept of satisfaction occupies a central position in marketing thought and practice. Satisfaction has been viewed as having both affective (emotional) and cognitive dimensions (Oliver, 1996). The findings of the present study suggest that satisfaction is a cognitive evaluation of the performance of service attributes in the context of CQUni. The following are the quotes of the focus group discussions.

> "Everyone says …. and …. are big and better universities in this state comparative to this university. I have no experience with them. I can't compare. But to me this university fulfils my need. I have never found anything lacking. I have access the resources that I need" (Undergraduate student, age 20).
> "If someone is not satisfied with the performance of the university, he has to finish his degree. He can't just be in the middle of no way and do nothing" (Postgraduate student, age 26).
> "I think for us satisfaction of a particular incidence of any aspects of this university depends on the performance of several factors, for example, quality of lecturers, counselling, staff's behavior and the like" (Postgraduate student, age 33).

Therefore, satisfaction may be viewed as a psychological state of happiness of the students as a result of performance evaluation of the service attributes. This leads to the following hypothesis.

> **H3:** Performance of service quality positively affects students' satisfaction in a higher education context.

Trust: Trust is the drive of customer retention (Doney, Barry, & Abratt, 2007). It has been defined as "one party's believe that its needs will be fulfilled in the future by actions undertaken by the other party" (Anderson & Weitz, 1989, p. 312). Studies find that service quality and satisfaction are the antecedents of trust in a business-to-business service sectors (Delgado-Ballester & Munuera-Aleman, 2001; Horppu, Kuivalainen, Tarkiainen, & Ellonen, 2008; Lau & Lee, 2000; Zboja & Voorkees, 2006). This is because both of them include consumers' consumption experience and evaluation. However, there is no similar evidence in the context of higher education. The trust determines the relationship strength between students and university staff. While higher education institutes are trying to increase student numbers each year, trust of enrolled students and past students may play a vital role to increase the marketability of the university's programs and the brand, itself. The focus group

findings support this notion. The focus groups were asked to contextualize their trust on CQUni. The specific quotes are as follows.

> "To me trust is whether the university keeps promises or not..." (Doctoral student, age 34).
> "The students have trust on a university if it provides security, satisfaction, value for money and integrity in fulfilling promises" (Postgraduate student, age 33).
> "The trust is to provide me something for which I pay the money" (Undergraduate student, age 20).
> "How far they can solve any problem without difficulty" (Undergraduate student, age 21).

The findings suggest that trust is an important consequence of service quality and satisfaction in the context of higher education. Students perceive trust as the ability to provide satisfaction, secure environment, good value, solution to a problem, and reliable performance of the service attributes. Therefore, trust has significant role in the higher education domain as students build cumulative effects of trust over the years with their teachers, staff, institution, and lastly, with the brand. These lead to the following hypothesis.
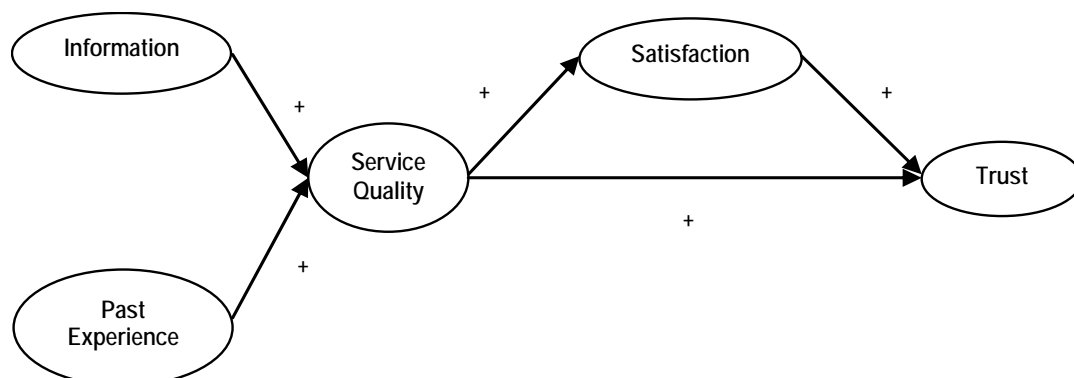
> **H4:** Perception of service quality positively affects trust in the context of higher education.
> **H5:** Perceived satisfaction positively affects trust in the context of higher education.

Students' trust is the foundation in the higher education services marketing where they have to go through a longitudinal process with their enthusiasm in order to get an outcome at a cost. Thus, achieving students' trust during their course of study has tremendous role in managerial decision making. While implementing the ECSI model in the higher education sector, studies (Alves & Raposo, 2007; R. Brown & Mazzarol, 2009; Chitty & Soutar, 2004; Martensen et al., 2000) have ignored the role of students' trust.

The above discussions signify that perceived service quality in terms of a higher education institute is the focal point for managers. Figure 1 shows the research model. The model shows that information and past experience positively affect service quality, and service quality positively affects satisfaction and trust. The model also shows that satisfaction has a positive and direct relationship with trust in the higher education context.

Figure 1: The Research Model

Conclusion, Limitations and Future Research

The aims of this study were to explore the perception of students with regard to the critical antecedents, dimensions and consequences of service quality in the context of a university in Australia. We used qualitative method to derive a theoretical model. The focus group findings show that the critical antecedents to service quality in the context of a higher education institute are information and past experience. Students perceive service quality as the performance of a set of attributes relevant to academic, administrative and support functions. As for the consequences of service quality, satisfaction and trust are found to have positive relationships with service quality.

There are several limitations in this study. Although selecting samples from a single university was one of the limitations, previous studies have conducted experiments considering a single university (C. Brown et al., 2009; Douglas, McClelland, & Davies, 2008; Smith et al., 2007; Stodnick & Rogers, 2008). The results of this study were drawn based on three focus group interviews at the main campus of the CQUni, Australia. This was done to comply with the allotted budget and timeframe. However, particular attention was given to select members for each of the focus groups to ensure representativeness of the larger population.

This study considered students studying at undergraduate and postgraduate levels at the CQUni, Rockhampton campus. Future studies should extend the scope of this study including all the campuses and/or universities. It is also recommended that future studies should make two segments, undergraduate students and postgraduate students, to explore some insightful findings. Future study should also validate the model using quantitative research method. A set of research instruments along with statistical validations will be reported in future studies. The validation of the model in the context of higher education industry across various countries should also be contributing to the literature. Future study can also extend this model using similar research methods. The argument of developing a service quality model in a university setting and its subsequent usability in commercial setting may be of interest to some scholars. Studies in the context of higher education service quality have empirically examined the models that are developed in a commercial setting (see, for example, Abdullah, 2005, 2006; Cronin & Taylor, 1992, 1994). Future studies should explore the usability of this model in the commercial service sectors.

The managerial implications of this study have several facets. First, the information designed for the students should contain desired and true messages. Second, continuous improvement of service performance results to good perceived experience of the students, which in turn, publicizes good word-of-mouth. Managers should focus on this issue. Third, managers should be able to develop and to maintain good and long-term relationships with the students. Fourth, managers should be able to maintain good relationships with local and regional high schools. They should invite high school teachers and students to participate in short courses, short visits, fair, meetings and symposiums. This might increase enrolments and impact favourably on quality judgment. Fifth, managers should ensure the performance of quality attributes up to a level where students are satisfied with the service performance and can trust the university.

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