ABSTRACT
In Malaysia and Singapore, Internet-based education has not attracted as many students as had been expected. It is reckoned that trust decreases the perceived risk of using a service. Since online learners have no direct contact with the education providers, trust plays an important role in an online tertiary setting. In a review of the literature, hypotheses are developed that suggest that brand trust as quality cues in online tertiary education is related to institutional and courseware design assurance factors, site quality and public awareness. A conceptual model summarizing the hypotheses is subsequently validated in an empirical study.

Keywords: online tertiary education, quality cues, brand trust

INTRODUCTION
There is a varying degree of perception as to what actually constitutes quality in higher education by different groups of people (Barnett 1992; Bennett 2001). According to Kirmani and Zeithaml’s (1993) perceived quality model, consumer uses intrinsic and extrinsic cues to develop descriptive beliefs about a product’s quality, where these beliefs in turn affect evaluation and choice. Intrinsic cues are the concrete, physical properties of the product and cannot be changed without altering the nature of the product itself (Zeithaml 1988). Within the context of tertiary education, intrinsic cues would refer to the course programs characteristics or course contents. Extrinsic cues are product related but not part of the physical product (Kirmani & Zeithaml 1993; Zeithaml 1988). Price, brand name, level of advertising and warranty are examples of extrinsic cues to quality.

Despite the plethora of studies on quality in higher education, little has been written within the marketing paradigm. This study proposes brand trust as the quality cue in choice of online tertiary education. Online tertiary education is defined as university’s undergraduate and post-graduate education via the Internet/Web.

CONCEPTUAL MODEL
Brand is commonly referred to as the name, term, design, symbol, or any other feature that identifies one seller's good/service as distinct from those of other sellers (Aaker 1996). Studies by Morgan and Hunt (1994), Fournier (1995) and Gurviez (1996) illustrate the importance of trust in developing positive and favourable attitude, resulting in commitment to a certain brand in successful consumer-brand relationship. Consumer’s trust in a brand contributes to a reduction of uncertainty in consumer purchases (Garbarino & Mark 1999; Gommans et al. 2001) and is believed to increase customer loyalty (Fullerton 2003; Narayandas & Rangan 2004). Since online learners have no direct contact with the education providers, trust plays an important role in an online tertiary setting.

Despite its importance, the concept of ‘brand trust’ has seldom been explicitly examined in education and consumer-brand literature. This is because diverse views in studying trust across difference disciplines have resulted in various definitions, contributing to the lack of measurement consensus in the trust construct (Kramer 1999; Gefen et al
For instance, economists view trust as either calculative (Williamson 1993) or institutional (Zucker 1986) while sociologists assess trust in terms of social relationships and social institutions (Granovetter 1985; Lewis & Weigert 1985). Psychologists define trust in terms of trustors and trustees and focus upon internal cognitions (Deutsch 1962; Rotter 1967). Social psychologists consider trust as an expectation that is specific to a transaction and the person with whom one is transacting (Drawbaugh 2001; Johnson-George & Swap 1982). On the other hand, management and marketing strongly connote trust with the competence dimension in a relationship, that focuses on the belief that the partner has the required expertise to perform his/her activities, carry out his/her obligations or accomplish his/her promises (Mayer et al. 1995; Morgan & Hunt 1994).

In marketing literature, the term ‘brand trust’ is variously defined as the willingness of consumers (implies a propensity) to rely on the ability of the brand to perform its stated function (Chaudhuri & Holbrook 2001); as the confident expectations of the brand's reliability and intentions in situations entailing risk to the consumer (Delgado-Ballester & Munuera-Aleman 2001; Delgado-Ballester 2004) or simply described in terms of reliability and dependability (Dawar & Pillutla 2000). These definitions of brand trust suggest that an individual’s propensity (a conscious inclination) to trust on a brand’s qualities or attributes is critical in consumer-brand relationship. Thus, this paper conceptualizes brand trust as an individual’s propensity to place one’s confidence in a brand’s qualities or attributes in situations entailing risk to the consumer, and proposes the following hypothesis:

**Hypothesis 1:** Brand trust as a quality cue in online tertiary education is related to risk aversion, contingent on situational factors such as institutional assurance and courseware design.

### i) Institutional assurance factors:
Regular faculty evaluation and government recognition of online degrees (Chung & Ellis 2003) and course accreditation (Philips 2007) ensure quality of online courses. This paper proposes that instructor quality (relevant qualification & motivated), and government recognition of online tertiary providers as the institutional assurance attributes. A motivated online instructor is taken to mean having strong empathy with online learners (time-pressed, computing skills, sense of isolation). Given that strong research outputs is a common criteria for generating worldwide university ranking (Stensaker 2005), it is included as a institutional assurance factor.

### ii) Courseware design factors:
Lack of a minimum study period, low entry requirements and unspecified study materials are some of the characteristics of a ‘certificate mill’ (Philips 2007). A certificate mill refers to the provision of education degrees for a fee. Previous academic records are deemed irrelevant by the certificate mill and they promise a certificate (based on work experience) within 30 days after entry. In order to maintain trust in the online tertiary education system, this paper proposes that courseware developed for online tertiary education must have certain minimum periods of study, and the same entry requirements and study materials as classroom study.

**Hypothesis 2:** Brand trust as a quality cue in online tertiary education is influenced by knowledge acquired through direct brand experience (site quality) and indirect brand experience (public awareness)

According to Kania (2001), familiarity with a company or brand generates higher trust, unless a person has a negative perception of a brand. Similarly, a study by Cheskin Research and Archetype (1999) also indicates a strong correlation between familiarity and trust. Brand familiarity is defined by Alba (1987) as the variable that reflects consumer’s level of direct and indirect experiences with a product. In contrast, McKnight et al. (1998) suggest that trust is not so dependent on familiarity. Given that online tertiary education is a form of invisible purchase (no face-to-face contact) where the outcome of the purchase (satisfaction) can only be assessed after course completion, users’ positive experience (direct and indirect) with the brand is key in maintaining trust in this form of learning. This proposition is consistent with the argument that brand trust summarizes both the consumers’ knowledge and experiences with the brand (Delgado-Ballester & Munuera-Aleman 2005; Garbarino & Johnson 1999).

### iii) Site quality:
Site quality is discussed as a main factor in engendering trust in the online retailer (Sharma 2007; Siau & Shen 2003). Good structure/clarity of design, technical helpdesk and self-checking activities are influential factors in the market acceptance of online education (Chung & Ellis 2003). Site quality in this paper is taken to mean a well-designed web site that gives online learners up-to-date information (knowledge content), is easy to navigate, and shows necessary links to other relevant websites or facilitates an effective interaction with online learners.
iv) Public awareness: According to Chung and Ellis (2003), industry support (recognition of skills achieved), strong alumni network (mouth-to-mouth communication) and friends or family’s opinions about online tertiary education are vital for its success. This paper intends to validate this argument in relation to brand trust.

METHODOLOGY
Questionnaire: The interviewer assisted questionnaire comprised of demographic, institutional and course assurance factors, site quality and public awareness factors, where respondents rank their importance (as quality cues) in trusting online tertiary education. The questionnaire was pre-tested on a group of 20 Singapore and Malaysian students from the University of Otago, New Zealand (NZ). On average, the questionnaire took between 10-15 minutes for the respondent to complete. The respondents were asked for their opinion about the difficulty of completing the questionnaire. No problems were found with understanding of the questions.

Samplings: The targeted samples were high school and junior colleges students. Students in their uniforms are a common sight in the various shopping malls in these two countries. Thus, they are easy to identify and solicit responses for the survey. However, the mall-intercept sampling design is classified as a convenience sample rather than a probability sample (Zikmund 2000). To increase the randomness of the sample, this research make a random selection of the mall to randomly select the survey respondents, and collect data over a two-week period at the same mall. To ensure that all possible times were represented when students went to a mall, preliminary observations were taken to discover the time frame the mall has the largest concentration of students. The time from 1-6pm was observed to have greatest concentration of students in all randomly selected malls. Interviewers were positioned at high traffic locations near mall entrances for the selection of respondents. Eight hundred questionnaires were randomly distributed in Singapore and Malaysia (Johore Bahru). Out of the 437 questionnaires returned, 210 were from Singapore and the rest from Malaysia. The data was normally distributed.

Factorial validity and structural model test: Exploratory factor analysis on all 4 factor scales using SPPS’s Principal Component Analysis (varimax rotation) techniques indicated they were best represented by one construct each. Structural model test using AMOS ver. 6.0 revealed sufficient evidence of goodness-of-fit between the proposed model and sample data with CMIN/DF=2.10, RMSEA=0.050 and GFI= 0.962 (Figure 1). All measurement models showed internal consistency with Cronbach’s alpha greater than 0.7 (course assurance factor =.772, institutional assurance factor =.748, site quality=.792 and public awareness=.828).

FINDINGS AND DISCUSSIONS
The structural test or structural equation modeling results indicated that institutional assurance factors and courseware design assurance factors had regression weights of 0.88 and 0.64 respectively. The indicated importance of instructor’s quality, university’s ranking and government recognition of online tertiary degree (institutional assurance factors) could be interpreted as a potential online graduate needing the assurance that their efforts and money spent on online tertiary education would be rewarded with public recognition; that quality instructors are available to encourage, mentor and motivate them to maintain their interest in their ‘isolated’ learning journey; and that the institution they enrolled in are highly regarded worldwide for its quality of teaching/research.

Similarly, the indication for the need of a minimum period of study, same course entry requirements and study materials as classroom study (courseware design factors) could be interpreted as respondents viewing these factors as necessary to avoid falling into the ‘certificate mill’ trap. The importance of institutional and courseware design assurance factors meant respondents tried to reduce uncertainty (risks) regarding online tertiary education, given that online education involves no direct contact with the institution or its staff. Thus, hypothesis one (brand trust as quality cue in online tertiary education is related to risk aversion, contingent on situational factor such as institutional assurance and courseware design) is supported by this research.

Site quality (regression weight=0.78) and public awareness factors (0.71) also influence brand trust in online tertiary education. Thus, the hypothesis that brand trust as quality cue in online tertiary education is influenced by knowledge acquired through direct brand experience (site quality) and indirect brand experience (public awareness) is also validated. This confirmed Sharma (2007) and Siau and Shen (2003) argument that site quality is vital in engendering trust in online retailer. It also supports Chung and Ellis (2003) assertion that family and friend’s opinion on online degree; industry support in the form of employment and strong alumni network for word-of-mouth communication (public awareness) are influential cues in the uptake of online tertiary education.
CONCLUSION
This study supports the argument that governmental support and industry collaboration are important for the propagation of online education. Brand trust as quality cues in online tertiary education is related to risk aversion (contingent on institutional and courseware design assurance factors) and knowledge acquired through direct brand experience (site quality: - interactivity, up-to-date knowledge contents, ease of navigation) and indirect brand experience (friends/family’s opinion about online tertiary education, industry support, mouth-to-mouth communication via alumni networks).

![Figure 1: SEM statistics (unstandardised) of the proposed model](image)

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