BRAND EQUITY OF HIGHER EDUCATION: A CASE OF MBA ACADEMIC PROGRAM IN NEPAL

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ABSTRACT

The aim of this study is to address the gap in literature on brand management of higher education market by identifying the factors determining brand equity. In this study the brand equity refers to behavioral intention of customers (applicants, students, and parents and relatives) to study and recommend others to study MBA academic programs in a focal institution over competing institutions. This study was started with in-depth interviews and focused group discussions with MBA students and applicants which were followed by a pilot survey on students for initial item generation. The main study was based on quantitative analysis of data collected from questionnaire surveys on about 700 respondents of different sample groups such as students, applicants, influencers (parents, relatives, friends) and opinion leaders (policy makers, planners, administrators, faculty members of higher education institutions). Exploratory factor analyses, Cronbach's alfas, correlation and structural equation model (SEM) were the main data analysis tools used in this study. This study concluded that brand drivers comprise of quality of faculty, quality of infrastructure, graduate employability, advertisement and word of mouth which are explained by altogether 18 statements (items) that the customers used as criteria for evaluating the programs of the institutions. Similarly this study figured out brand dimensions which measure level of awareness, perception of quality and image of the institutions namely, perceived quality, perceived value, organizational association and brand awareness which are explained by 13 statements (items). Finally, the brand equity measured through four statements was developed for evaluating the level of preference and commitment of customers to a particular institution over competing institutions for the program. This study found that the perceived quality is the main

brand dimension with four antecedent brand drivers namely quality of faculties, infrastructure, employability and word of mouth. Perceived quality contributes positively to brand equity. Therefore, this study draws management implications for promotion of quality of faculties, graduate employability, infrastructure and word of mouth in order to enhance perceived quality for improving brand equity in higher education institutions. The brand equity construct explored by this study can be used in future research in marketing and branding of higher education institutions. This study also drew implications for future research such as study on the strengths of brand equity of the institutions, brand equity from employers' perspectives and replication of this study on other educational programs.

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ABBREVIATIONS

ACA	Acceptability of Choice Alternatives
AD	Advertisement
BA	Brand Attitude
BAW	Brand Awareness
BE	Brand Equity
CUR	Curriculum
EMP	Employability
FAC	Faculty
HE	Higher Education
INF	Infrastructure
OA	Organizational Association
OABW	Organization Association plus Brand Awareness
PI	Purchase Intentions
PQ	Perceived Quality
PV	Perceived Value
WOM	Word of mouth

CHAPTER I

INTRODUCTION

Brand, traditionally, refers to a combination of name, term, sign, symbol or design to identify a product and service differently from that of competitors (Kotler & Keller, 2009). For example a name and associated logo and its design of any particular higher education institution can be brand name. One will identify, for example, Tribhuvan University or certain college of higher education different from others by seeing its name and logo.

Today brands are more than names and logos. Kotler and Keller (2009) define brand in terms of functional performance and symbolic representations. They state that a brand is a combination of products, services, information and experiences from a known source. Branding involves efforts from the organizations to create mental structures and perceptual entities in the minds of customers about the products and institutions. These perceptions help customers organize their knowledge to differentiate the products or services meaningfully from other products and services. These perceptions assist customers in their purchase decision making (Keller, 2003). Therefore, higher education institutions through branding can differentiate their program from the competing programs of other institutions in the minds of applicants and students, and their relatives and friends who influence them in the choice of institutions. This study identified the factors that determine students' favorable perceptions and preferences on a particular higher education institution over other competing institutions offering the same education program.

The concept of brand and branding explains answers to the questions on why do students prefer one university or college over others for the same degree, and what

influences their preferences and choices of one higher educational institution over others. Answers to these questions will help higher education institutions to devise its policy and strategy to develop positive and favorable perceptions of students, parents and other stakeholders of its programs. When the customers have positive and favorable perceptions of the products or services over other competing products and services, the customers react favorably to the particular institution and their programs resulting in increase in number of applicants and enrolments of qualified students. A brand is said to have positive brand equity when customers react favorably to it (Kapferer, 2008). This study explored the brand equity of higher education the knowledge of which is useful for policy makers and managers of higher education institutions to assess their brand management.

Ultimate objective of branding in higher education should be to increase brand equity of the institutions and their programs. Brand equity is an ultimate measure of value of a brand. Brand value arises from differences in customer response (differential effect) due to their knowledge about the brand (brand knowledge) leading to brand equity as reflected in perceptions, preferences, and behavior related to all aspects of the marketing of a brand (Keller, 1993)

For example, when KU as brand name is attached to particular academic program, it may affect positively or negatively on students' perceptions on the programs resulting in preference and choice of the program. The same is true in several education programs offered in association with different higher education institutions. As stated above, such brand value is not created simply by the name of the university or college but by several efforts of the institutions. Belanger, Mount and Wilson (2002) argued that a brand is built through the experiences people have on complete services of the university starting from pre application to post graduation.

During this period customers are exposed to different aspects of higher education institutions resulting to development of their perception on the institutions which determine brand value.

Brand value can be created through either direct or indirect experiences with a brand (Aaker, 1991; Kapferer, 2008; Keller, 2003). Direct experiences are gained by students while they apply for enrolment and go through selection, admission, study and alumni in a particular institution. Indirect experiences are gained through word of mouth; inferences from the brand name, country where the university or its constituent and affiliated colleges or campuses are located, person who teach and facilitate teaching, place or events such as classes of the university; and other commercial and non commercial sources such as press and advertising.

Over the years, a large number of studies have explored about how various products and their branding and marketing practices affect customers' responses to brand especially in consumer products. Building strong brands has become a marketing priority for many organizations as they attempt to establish an identity in the market place (Aaker, 1996 b), to be less vulnerable to the competition, and to take advantage of brand extension opportunities (Delgade- Ballerster & Munurea-Alemean, 2005). Marketing researchers and practitioners have examined brand equity by measuring the overall value of a brand that brings benefit to organizations and customers on all its products and services. Such type of assessments has not been carried out in higher education. Therefore this study assesses composition and structure of brand equity construct of higher education institutions to fulfill the gap.

Gap Analysis

Research in marketing of higher education is recent initiative. Relatively little has been written on the marketing of education even within international markets

(Mazzarol, 1999). Over the last decade, many studies have explored the marketing of higher education in the international arena. Global market of higher education services has forced providers of higher education to pay greater attentions to what students value to survive in competitive environment (Ivy, 2001; Vaira, 2004). For example, research indicates that students have increasingly become critical and analytical when they choose a university (Bindsardi & Ekwulugo, 2003). Higher education institutions are involved in increasingly intense struggle to attract new students (Nicholls, Harris, Morgan, Clarke, & Sims, 1995; Soutar & Turner, 2002). As a result, educational institutions need to develop distinctive market images of their institutions among customers (students and parents) for the development of their competitive advantage. Therefore, branding has become critical to higher education.

Higher education is different from other types of industries associated to products and services because it is intangible and not frequently purchased, and its selection demands a high level of customer involvement (Nicholls et al., 1995). Assessing the quality of higher education is complex and requires a long-term decision (Baldwin & James, 2000). The research on marketing of higher education (e.g., Baldwin & James, 2000; Nicholls et. al., 1995) indicated requirement of different perspective for analysis of branding in higher education and brand concept used in customer products may not exactly fit in the case of branding of higher education.

Many studies (e.g., Bindsardi & Ekwulugo, 2003; Cubillo, Sanchez, & Cervino, 2006; Gatfield, Braker & Graham, 1999) have explored the relevance of marketing in influencing students' choice of programs and institutions for higher education in the international market over the last decade but not much in branding of higher education. Gatfield, Braker and Graham (1999) found that reputation, quality

of teachers and resources, and campus lives are important factors in students' choices. Similarly, Bindsardi and Ekwulugo (2003) found that the students' choice of institutions were affected first by standard of education of that institution and its credibility; second by the ease of admission and immigration; third by employment opportunities; and fourth by cost of living respectively. The rating and accreditation as reputation is also used by the most attractive segments of students mainly from high income families (Dill, 2003). Cubillo, Sanchez, & Cervino (2006) stated that the selection of higher education institutions by students is governed by personal needs, their image of the country in which the university is located and the institutions' image. Ho and Hung (2008) found that the five most important factors in students' school selection were employability, curriculum, academic reputation, faculty, and research environment.

Other studies (e.g. Srikantanyoo & Gnoth, 2002) have found that country's image is the most important variable. Secondly the programs offered in developed countries are perceived to be of high quality (Bourkie, 2002). In line with this, Gray, Fam and Llanes (2003) found that international alliances and off shore teaching programs were the predictors of market success.

Other research studies (e.g., Ivy, 2001; Mazzarol, 1999) found effects of marketing and promotion activities on students' perceptions and choices. Bourke (2000) found that the most critical variable affecting student choice decision were information about the institution, its programs, facilities and services. Promotion through social networks (Bindsardi & Ekwulugo, 2003), and word of mouth (Ivy, 2001) also influence opinions and impressions resulting in brand image. These findings are supported by other studies which indicate that long term and continuous relationships with alumni creates brand loyalty (Mazzarol, 1999) which helps to

increase word of mouth promotion. Accessible and convenient web pages, print media, news stories, TV promotions, trade fairs, open day programs providing detailed program information and emotional messages attract customer responses (Gray, Fam, & Llanes, 2003).

Above mentioned studies demonstrates the effects of institutional name of higher education, location, country, courses etc. and their marketing practices on students' intentions to apply for degree, their choices and copletion of the course in the same institution. Although there have been a number of studies that have examined image and reputation of higher education institutions, the concept of branding has barely made its mark in higher education marketing (Hemsley-Brown & Oplatka, 2006). There has not been any research on brand equity identifying the factors that result in students' differential perceptions and preferences among available programs and universities. None of them really measure the brand equity, brand value and its antecedents which will be helpful for policy makers and brand management of higher education institutions to devise their strategies.

Need for a research was realized to address the limitation in the existing literature on brand management in higher education. Though brand has gained considerable attention in higher education institutions, policy makers and brand managers do not have access to valid and reliable instrument to measure brand value of the higher education institutions and plan accordingly. A study is expected to explore sources and dimensions of brand equity in order to address above mentioned gaps in literature. Several conceptualization of brand equity exist in different consumer products, but they may not be applied exactly in higher education because of its distinctive characteristics. This study empirically examined different aspects and dimensions of brand equity construct. In the process of this study a standardized

components of brand equity construct and valid scale was developed ensuring the existence of psychometric properties by establishing its reliability, validity and generalizability across different sample customers such as applicants, students, graduates and associated stakeholders.

Theoretical Framework

A brand in the context of this research has used the name of a certain educational program chosen by the applicants and students to evaluate certain degree of differential market image among higher education programs. Branding refers to the activities intended or unintended to create image of the brand. The students will have different level of awareness and association (perceived quality and image) on a brand which is called brand dimensions. Brand equity is institutional image in marketing perspective which makes students (consumers) to react favorably to a particular higher education program offered by competing institutions. For example, when a student thinks of brand - Harvard University, he or she may think of "the most brilliant students and highest paid graduates". Similarly, Nepalese students may have certain functional and symbolic perceptions over Kathmandu University. For example, when a student thinks of academic program of KU, "expensive but quality conscious and timely results" may come to her or his mind as students may have different perceptions on different universities and colleges in Nepal. These perceptions determine their attitudes and preferences to apply, to get admission and to complete study in a particular institution over other competing institutions for the same degree and satisfied students may recommend other fellow students to choose the same institution in future. While recommending for the institution, they refer to the name of the institution (brand) rather than other attributes. Same may be true for the parents, relatives, teachers and friends who might have studied, learned or heard

about the higher education institutions. They use their perceptions and preferences while suggesting any aspiring students during their application and enrolment in the higher education institutions. These experiences, information and exposures are the drivers or sources of brand dimensions and brand equity which represent different aspects or facets of higher education institution such as curriculum delivery, graduate outcomes, infrastructure facilities, reputation etc.

One of the branding strategies is to combine new and existing brand elements (Kotler & Keller, 2009) which have found to be a common practice in higher education. In line with this branding strategies name of higher education institutions, for example KU - a blanket family name has been associated with several schools such as KU School of Management (KUSOM), KU School of Education (KUSED). The names of the schools resemble parent brand names which have been extended to several academic programs such as the KUSOM's MBA, BBA@KUSOM etc. Each of the programs is sub-brand in this example. The programs of other institutions have only parent brand name attached to it such as MBA of ACE, MBA of APEX. Although these programs are affiliated to a particular university, they are not directly attached to the brand name of the programs. Each of the programs offered under a parent brand name may have different level of brand equity though institutional image of a family or parent brand name is attached to it. This research studied brand equity of academic programs rather than institutions. Since the institution's name is attached to the brand names of the programs, all the expression of institutions' brand equity should be understood as that of programs, but not of institutions in this study.

The customer based approach was adopted in this study. A customer based brand equity (CBBE) model is based on how customers see the characteristics of firms' offerings or programs. Therefore, it is related to customers' perceptions,

beliefs, feelings and attitudes (Keller, 2003). The CBBE (e.g., Aaker, 1991; Keller, 2003; Yoo, Donthu & Lee, 2000) model was adapted to suit the distinct service characteristics and consumer behaviors in the higher education market.

Consequently, this study considered students as customers (Eagle & Brennan, 2007) who pay for services as the bundle of benefits that satisfy different types of needs and prepare them for employment. In addition, this study included applicants who might or might not have been selected, students' relatives and friends who recommended them to apply in a particular institution. This study explored different aspects of brand equity and its dimensions, and branding activities as the sources of the brand equity.

This study finally verified the results with traditional CBBE of different products and services (Aaker, 1991, Keller 2003, Yoo & Donthu, 2001, 2002). The theories of high involvement purchase decision behaviors model for service (Asseal, 1998) were used in this research. According to this conceptualization, higher education institutions design and implement different marketing activities such as designing program attributes, pricing the programs, communicating them to students and giving student's convenient access to the programs. Students go through a sequence of experiences starting from cognitive (thinking and belief), leading to affective (feeling and evaluation) and finally conative (action and behavioral) stages. With an intensive interaction with the education institutions and their programs students develop positive or negative perceptions and preferences to the marketing offers of the institutions. They may perceive the institutions as having good or bad quality faculty, curriculum, and reputation etc. Positive perceptions will develop positive effects on brand dimensions and brand equity.

Research literature commonly suggests the following four brand dimensions. Brand awareness refers to "the strengths of brand's presence in customers' mind in terms of brand recognition and recall" (Pappu, Quester, & Cooksey, 2005 p 145). One who is not aware of a brand will never react positively to it. Another dimension is brand association which includes functional performance and symbolic representation of a product or service of institutions. These associations provide customers reasons to differentiate the brand from competing brands. Functional associations are commonly understood as perceived quality. Perceived quality is defined as the customers' subjective evaluation of the product (Zeithamal, 1988). In this study perceived quality of higher education was classified into several factors as indicated by literature on marketing of higher education such as faculty, curriculum, infrastructure etc. Another dimension was brand image which is brand association with symbolic representation of organizational association and perceived value. Brand association is believed to contain "the meaning of the brand for consumers" (Keller, 1993 p 3). Brand association is unique to a brand such as traits or characteristics of students studying in the institutions, employability, learning environment and reputation of institutions as perceived by the students. Fourth brand dimension is brand loyalty which is defined as the attachment that a customer has to a brand (Aaker, 1991). Because of attachment the brand loyal customers will demonstrate commitment to repurchase the products as the first choice in the future. Since higher education of certain degree is not for repurchase, brand loyalty is not included in this research. Instead brand equity is considered to measure the attachment which is manifested as the students' commitment to recommend others to make it their first choice.

A brand having higher level of awareness and associations will create positive brand equity. Positive brand equity was operationalized as strong willingness to contribute to institutions through recommending others to study in the institution as first choice among different alternatives for the same degree. In this study positive attitudinal dispositions were used as indicators of having positive brand equity rather than behavioral intentions of repurchase because higher education program are not for repurchase and brand loyalty unlike in other consumer products. In other words positive brand equity will increase positive information by word of mouth which enhances overall value of the institutional image not only on students but also on other stakeholders such as parents, employers and general public. This study focuses on linkages among the selected antecedents (directed or undirected promotions and different facets/ sources of brand equity) – dimensions (brand awareness and associations) - brand equity in students for testing nomological validity of the construct as indicated in the table number one.

Table 1

Brand Equity Structure

Brand Sources / Drivers	→	Brand Dimensions	→	Brand Equity Outcome
1. Services and facilities offered in an academic program 2. Promotion such as advertisement 3. Word of mouth		1. Brand awareness 2. Brand associations		Brand equity (intention to recommend others to study in an institution)

Objective of the Study

The main objective of this research was to find out the factors affecting brand equity of higher education in order to contribute in the literature of brand management in marketing of higher education. More specifically this study attempted -

a. To identify different factors associated with brand drivers, brand dimensions and brand equity of higher education,
b. To examine causal relationships among brand drivers, brand dimensions and brand equity outcome of higher education,
c. To test cross validity of the brand equity constructs with purchase intentions and brand attitudes across different samples of applicants, students and other influencers, and
d. To assess the perception of academic leaders to supplement the theoretical construct of the study.

Problem Statement

The literature indicated a need to study influences of brand on students' choices of higher education programs and institutions. Although many literatures in marketing of higher education emphasized on needs for research on brand management, studies on brand equity in higher education do not exist. Therefore the following is a problem statement of this study.

"What are the factors that determine brand equity in higher education?"

Research Questions

In order to address the above mentioned problem statement, this study poses the following research questions?

a. What are the criteria that students use while developing awareness, association, preferences of a particular higher education institution over competing institutions for an educational program?
b. What are the statements or clues explaining the criteria that the students use to indicate their awareness, associations, preferences of a particular higher education institution over competing institutions for an education program?
c. What are the reliabilities and validities that the groups of clues and statements explaining the criteria consistently measure the intended variables of core criteria of awareness, associations and preferences of particular higher education institution over competing institutions?
d. What are the causal relationship among brand awareness, association and preferences and associated aspects of brand equity as compared to those indicated in brand literature?
e. What are the correlations of the brand equity variables with students' choice intentions and brand attitudes in higher education as indicators of cross validity of brand equity constructs?
f. How are the brand equity constructs perceived by students similar with its perception among students' parents, relatives, friends and other stakeholders of higher education institutions?
g. How are the construct of brand equity related to perceptions of academic leaders such as faculties, academicians, administrators and policy makers of higher education?

Rationale for branding of Higher Education and its research in Nepal

The international trade in higher education has grown substantially throughout the last century because of high demand for internationally recognized qualifications

and its higher returns on investments, supply constraints in some countries due to insufficient numbers of institutions to meet the demand and unavailability of some courses at home, and students' personal desire to travel, and migrate (Basher, 2007).

As a result, there has been a significant increase in the number of students seeking to study outside their own country. This international trade in education services generated around $US30 billion revenues in 1999 (Larsen & Vincent-Lancrin, 2002). From 1.75 million students studying overseas in 1999, the global international students market reached 2.5 million students in 2004 (UNESCO, 2006).

This market trend has resulted in increase in higher education imports the expenditure on which represents higher proportion of domestic public expenditures in developing countries. Nepalese spend Rs 30 billion annually for foreign study, excluding India (Nepali Times, 2008). The Nepali Times (2008) further reported that Nepal ranked 13th in number of students studying in the US and 11th in Australia in 2007 with spectacular growth in recent years mainly due to instability at home, lack of job opportunities, an uncertain future and dreams of a better life.

This growth in the international trade in education services has made many governments of supplier countries formulate educational policy to enhance the accessibility of their education sectors to overseas students (Kameoka, 1996). This growth has brought significant diversification in the supply mode resulting to negotiation for liberalizing trade in services through multilateral, regional and bilateral trade agreements (Basher, 2007). As a result study abroad was treated as consumption abroad according to The General Agreement on Trade in Services (GATS) - a multilateral agreement created in 1995 and administered by the World Trade Organization (WTO) for higher education. The other three GATS modes are: cross-border supply through distance learning, commercial presence through

increased outreach in foreign education in importing countries either through partnering / franchising and opening branch campuses; and the presence of natural persons for allowing temporary movement of teachers, lecturers, and education personnel from one country to other to provide education services. These modes of international higher education trade allow operation of education services in host countries. This trend has increased competition in higher education trade also in the home country for those who cannot afford to study abroad (Basher, 2007).

The threat to the Nepalese domestic education system is high because Nepal as a member country of WTO has a commitment to liberalize trade in higher education. The globalization trend will aggravate the inequalities among the world's universities where world-class universities in western industrialized countries hamper smaller and poorer countries' autonomy or competitive potential (Altbach, 2001). The major threats from a liberalized higher education market particularly in developing countries are: (i) unequal access to higher education markets between providers in developing and developed countries (ii) negative effects of competition on domestic higher education institutions (iii) influx of low quality foreign providers, and (iv) worsening of equity in access to higher education (Basher, 2007).

Basher (2007) further highlighted the followings: International trade in higher education is likely to continue its growth rapidly through commercial presence and cross-border delivery in the form of e-learning and distance learning. As a result, the movement of students abroad will increase inequity in access to higher education, reduce national capacity, increase the brain drain, weaken balance of payments, and incur heavy losses of returns on investments in education. The presence of foreign higher education providers has a great impact on national higher education systems. The situation will be worse when substandard foreign private providers' move into

developing countries through heavy marketing and advertising “foreign brand” to influence students' choice. Similarly, low income countries typically attract low quality providers, often those which are not accredited in their countries. This situation results in students pay more for a foreign education of uncertain value than for a domestic education with some clear value. Weak higher education providers and weak regulations in the higher education sector in developing countries make domestic providers unable to compete even with low quality foreign providers.

Since this study examined determinants of students’ responses to brand name and branding practices, it has clear implications for helping students to make informed choices. Knowledge about the factors affecting brand formation will enable higher education institutions to increase their competitive advantage by improving their brand management practices. Similarly, the government may use the knowledge in formulating educational policy to make domestic institutions competitive.

Privatization drives and decentralization have contributed in increased competition among domestic higher education institutions as indicated by large number of private colleges that have been established. A World Bank report (2007) stated the followings: Out of 474 campuses, predominantly 395 are affiliated campuses (147 communities and 248 private). Among the affiliated campuses 258 were affiliated to TU and TU’s enrolment in the total tertiary education is around 91%. However their performance is low as indicated by their pass rate. The report further stated that many of these campuses have been alleged to be diploma mills. There is no quality monitoring in Nepal. Educational institutions are unable to adapt quickly to changing needs of the economy and the labor market (World Bank, 2007).

Many higher education institutions indulge in marketing games depicting fancy buildings, bright class rooms and well equipped play grounds etc., to attract

student enrollment as can be seen daily in their different promotional advertisements. The students might have been uninformed or misinformed about the quality of education, the institutions' credentials, placement rates etc. The goal of this study is to identify what students want in higher education so that education programs can be designed accordingly. This study will provide useful information for those competing with poorly qualified higher education institutions and strengthen their competitive positions.

Significance of the Study

Conceptually, this study has the potential to enrich the literature by providing scale to measure brand value of higher education institutions and their programs as a contribution to brand management and marketing in higher education of Nepal in specific and in the world in general. While exploring brand equity constructs of higher education, this research examined detailed branding practices and examine systematically the relationship between marketing efforts and brand dimensions and brand equity building in higher education. Empirically, this study established baseline findings on brand equity formation and the effects of marketing efforts in brand building and customer behavior in the Nepali higher education market.

This research should benefit practitioners and academics alike. For researchers, it proposed brand equity constructs - its contents and structure, and provided a more systematic framework which can be used in future similar research. For the government, Nepal's huge outflow of students overseas might be minimized through appropriate policy measures once students' perceptions and attitudes toward Nepalese higher education institutions and their quality is understood. The marketers of higher education need to know how best to reach customers. This study should help them answer the following key questions: How do we build brand equity through

the appropriate marketing strategy in higher education in Nepal? Do the marketing activities designed to build brand equity need to be modified to address different attitudes or behaviors in the market of higher education in Nepal?

Overall, developing insights into the brand equity is important in increasing prominence of branding in higher education. Access to valid and reliable brand equity instrument is vital for the brand managers of the higher education. This study contributes in understanding of brand equity by examining the dimensionality and various facets of its constructs and provides empirical evidence of multidimensionality of brand equity. The study will enrich brand equity measurement in higher education. Marketers need to know the effects a given set of actions – advertising, investment in infrastructure, faculty and curriculum have had on the brand equity in order to begin planning the next set of actions. Understanding brand equity construct is important due to its strategic value guiding marketing strategy, aiding tactical decisions and providing a basis for assessing brand extendibility.

Limitation of this Research

There are several higher education institutions and programs. This research is confined to study of master in business administration (MBA). Its original intention to cover master in business studies (MBS) was discarded because MBS students did not demonstrate significant differences in perceptions and preferences on one higher education institution over others for the same degree. The detail investigations on the results could not be made due to time and cost considerations. Similarly, this study deliberately focuses on the Masters' degree even if differential market image were found during preliminary study on Bachelor in Business Administration (BBA) and Bachelor in Business Studies (BBS). They were not included for more focused study on Master's level students as they have greater degree of freedom on their choice of

educational institutions than other the others. In addition, Master's degree is the terminal degree for many of the students after which they seek employment. In addition, other program such as stream of medical, engineering, science and humanities were not included in order to maintain preciseness of the study in limited costs and time.

Delimitation of this Research

This study identified brand equity constructs and associated facets and dimensions among the students as focal customers with reference to MBA academic program in Nepal. The constructs were cross examined with applicants and other stakeholders who recommend the applicants or students to select a particular business schools for an academic program over others. They were selected following purposive sampling. Therefore, cross validation across sample customers and stakeholders may not be generalizable. Graduated students could have also been included but not included because they were included in the sample of those people who influence the students' choice decisions. Brand research in higher education can also focus on different programs such as why MBA is most preferred over other programs whether offered by the same institution or other institutions. However, this research is focused only on name of an academic program category i.e. MBA of several institutions because a primary objective is to measure students' preference on a particular institution for the same programs offered by competing institutions. Constructs of brand equity of the institutions in Nepal can also be compared with those of other countries for the same degree, which could not be done in this research. Brand equity of the institutions could have been studied but not done in order to maintain the focus and precision of this research. The brand equity of higher education could also be measured on employers who absorb MBA graduates, but this

study did not include them, because their preference and choice significantly vary from students as they do not pay for the study and they care more on students' competency than image of the programs of the institutions.

Definition of Terms

Acceptability of choice alternatives: These terms indicate students' belief on availability of acceptable alternative higher education institutions which is more attractive than where they have been studying.

Brand association: This is what applicants, students and their associate perceive to exist in programs of institutions in terms of perceived quality and brand image.

Brand attitude: This is favorability of applicants, students and their associates on one higher education institution over other competing institutions.

Brand dimensions: This comprise of different set of variables leading to brand equity formation such as brand awareness and brand association in terms of functional performance and symbolic representation.

Brand drivers: They refer to branding or marketing activities of higher education institutions to attract customers to the institution's academic program. Some of them are directed by the management such as improving physical facilities, faculty, and advertisement, and undirected such as word of mouth promotion. Brand drivers are the sources of brand dimensions.

Brand equity: It is the ultimate results of different brand dimensions reflected by preference and commitment to a focal institution over other competing institutions for the same degree.

Brand facet: This refers to different aspects of quality and image of institution which the students consider important while expressing their attitudes towards a particular institution over other competing institutions.

Brand image: It is a symbolic and intangible representation of higher education that applicants and students perceive to exist in the higher education institutions.

Brand value: This is the favorability of a particular higher education institution over other competing institutions as measured by brand equity.

Brand: It is a name of institutions which offer MBA and EMBA program for this research.

Focal institution: It is the institution which respondents evaluate against its competing institutions. The respondents were asked to evaluate a particular business school for example, Ace Institute of Management, against rest of the available business schools.

Organizational association: It is what customers think about the institution and university in terms of its trust, credibility and pride of being associated with.

Perceived quality: It is an expression of functionality of education and its delivery system of a particular institution's offer as perceived by the applicants, students and their associates.

Perceived value: It is what customers think that they acquire quality and satisfaction from the institution in comparison to what they paid for it in terms of price, efforts and time.

Purchase intention: This is applicants' intention to admit in a particular institution over other competing institutions.

CHAPTER II

REVIEW OF THE LITERATURE

This section contains findings of literature review of relevant theories, concepts and empirical research on brand management in consumer products and higher education. Since this research is on brand equity construct, this literature review section also contains review of empirical research highlighting their research objectives, measures and methods used, and their findings. The review of literature is dominantly based on review of research articles published in different international journals. The articles of the international journals were acquired through on-line subscriptions of Kathmandu University namely Emerald and JSTOR. Some of the articles were borrowed from colleagues studying and working in the US universities. In addition, some text books were also reviewed for in-depth understanding of underlining theories of brand management.

This section begins with elaboration of concepts and theories relevant to brand and methods of measuring brand values and associated aspects. The section is followed by the findings of empirical research in measuring brand constructs and brand value of different types of products. The other section of the review is explanations of relevance of brand management in higher education from service marketing perspective. Therefore, this part of section discusses about applications of brand related theories in higher education institutions. The findings of review of empirical research on brand and marketing of higher education were presented in this section. Some conceptual papers on brand management of higher education institutions were also reviewed and included in this section.

Brand Concept

A traditional definition of brand concentrates basically on the product and its visual features, because it refers to a combination of name, term, sign, symbol or design to identify a product and service differently from that of competitors. Today brands represent a set of promises, trust, consistency, and expectations on a bundle of attributes of products or services that customers buy and get satisfaction from them (Davis, 2000). The attributes that make up a brand may be real or illusory, rational or emotional, tangible or invisible (Ambler, Bhattacharya, Edell, Keller, Lemon, & Mittal, 2002). Consistent to this, Kotler and Keller (2009) define brand in terms of functional performance and symbolic representations. They state that a brand is a combination of products, services, information and experiences from a known source.

Combining all these definitions, brand for the purpose of this study is defined as name or sign of a higher education institution which represents a set of promised or expected functional and or symbolic performance of the institution as perceived by the students. More specifically, brand is what the students carry around their head about the institution – brand (Ambler et. al., 2002).

Brand equity

Similarly, brand equity concept focuses on how the customers see the characteristics of the firm's offerings. Therefore this construct is related with beliefs, perceptions, feelings, and attitudes of customers on products and services (Ambler et. al., 2002). This concept is consistent with Keller's (2003) definition of customer-based brand equity (CBBE) which states that brand equity emerged from the differential effect that brand knowledge has on customers' response to the marketing of that brand. Therefore, central theme of brand equity is customers' knowledge about the brand which results in their responsive behaviors to the marketing efforts of

the firm. In other words, brand equity emerged as a result of customers' knowledge about firm's offerings resulting to the customers' favorable responses to the offerings. In line with this, Kim (1990) suggested that a brand is the totality of thoughts, feelings, sensations, and associations it evokes. Therefore, a brand is said to have equity if it has the ability to influence the behavior of those who behold the brand, improve their preference, attitude and purchase behavior.

These types of effects on customers take place when customers interact with the brand (Taylor, Hunter & Lindberg, 2007) in terms of exposure to the information of and experiences with the products. Therefore, brand equity arose from the customers' brand name awareness, brand loyalty, perceived brand quality and favorable brand symbolisms and association that provide a platform for a competitive advantage and future earning streams (Aaker, 1991).

Consequently, brand equity refers to the tremendous value inherent in a well known brand name resulting from customers' perception of it. Aaker (1991) defines it as a set of assets (and liabilities) linked to a brand's name and symbol that add to (or subtract from) the value provided by a product or service to a firm and/or that firm's customers. Therefore, brand equity is often referred to as the added value to the firm. The added value concept is broader as it is associated with customers' experiences, feelings, and what they learn about a brand over time and the 'added value' endowed to a product in the thoughts, words and actions of customers (Leone, Rao, Keller, Luo, Mcalister, & Srivastava, 2006) as well as to the firms.

The added value to firm is the result of customers' preferences to the brand over other competing brands which make them willingly pay more for the same level of quality due to the attractiveness of the name attached to the products (Bello & Holbrook, 1995). The less popular brands tend to suffer because they attract fewer

buyers than popular brand do and their customers' purchases are fewer than popular ones (Ehrenberg, Goodhardt & Barwise, 1990). It appears that brand equity emerges due to customers' knowledge about a brand which results in their preferences leading to customers' favorable response to the brand which increases sales and profit of the firms.

For the purpose of this study brand equity is defined as the customers' knowledge, perceptions, preferences and responses to a focal brand i.e. name of the HE institution and its offers of education programs over the other competing higher education institution for the same level of product (degree). Costumer- based brand equity occurs when the customers are familiar with the brand and hold some favorable, strong, unique brand associations in the memory (Keller, 1993), and the customers demonstrate their preference, purchase intentions and commitment to contribute to a brand over other competing brands.

The Value of Brand Equity

Brand equity has various benefits to a firm. Strong brands enhance customer awareness, loyalty, and the efficiency and effectiveness of marketing and advertising programs (Aaker, 1991). In other words, enhanced brand equity leads to higher price, lower price elasticity, greater competitiveness, and, ultimately, higher profit and market value (Agres & Dubitsky, 1996; Graeff, 1997). According to Lane and Jacobson (1995), brand names are valuable because of their ability to maintain and create earnings for the firm over and above those generated by tangible assets.

Companies that enjoy high levels of brand equity are more likely to create higher levels of customer preferences and purchase intentions than companies with less brand equity (Cobb- Walgren, Ruble & Donthu, 1995). This is because brand equity influences perceptions of product performance (Aaker, 1996b, Assael, 1998).

Brand equity also creates strong competitive barriers for a company that leads to less vulnerability to competitive marketing actions and crises (Assael, 1998, Aaker, 1996b). Brand equity reduces the marketing costs in promoting the brand and attracting newcomers (Aaker, 1991).

Therefore, a primary responsibility of brand managers should be to build up brand equity, since the result provides value to both the firm (e.g., via effectiveness of marketing programs, brand loyalty, price premiums, favorable environment for brand extensions, and so on) and the customer (e.g., via enhanced information processing, purchase decision confidence, and increased satisfaction) (Aaker, 1991; Cobb-Walgren, Ruble, & Donthu, 1995; Keller, 1993). Such benefits can be derived by the higher education institutions through effective brand management both for the benefits of institutions' sustainability and competitiveness, and students' correct decision making and satisfactions. The customer-based approach provides means of understanding customer's needs and wants to devise future brand strategies to satisfy those needs (Keller, 2003).

Constructs and Measures of Brand Equity

The relevance of brand equity necessitates scholars and practitioners to develop measures of brand equity (Washburn & Plank, 2002). Since customer based brand equity is associated with customers' belief, knowledge, perceptions, preferences and response, customer based brand equity is a multidimensional concept (Aaker, 199; Keller, 1993; Washburn & Plank, 2002). Most of the published research in brand equity deals either with attempting to value brand equity or to understand more about the structure and composition of the construct for marketing purposes (Na, Marshall & Keller, 1999).

This study deals with the understanding the structure and composition of the brand construct to fulfill the gap in the literature in marketing of higher education. Understanding the structure of the construct will contribute in brand management practices in higher education. Therefore, the following section explores different dimensions and sources of brand constructs and their structural relationship.

Brand Dimensions

CBBE construct has evolved over time. Two of the most cited customer-based frameworks are those suggested by Aaker (1991) and Keller (1993). Aaker's (1991) framework of brand equity comprises five sources. Four sources are based on customers' knowledge and perceptions of the brand: brand awareness, perceived quality, brand associations/differentiation and brand loyalty, and the next is related to the market value of proprietary brand assets such as patents and R&D investments. The benefits and value that these sources offer to the firm help to build up brand equity (Aaker, 1991). In other words, the first four sources help to build up customers' based brand equity.

Keller's (1993) original model of CBBE involved two overall dimensions – brand awareness and brand association or image. Brand equity from this perspective occurs when a customer is familiar with the brand and holds some favorable, strong, and unique brand associations in memory. However, Lassar, Mittal, and Sharma (1995) argue for a five-factor conceptualization comprised of performance, social image, value, trustworthiness, and attachment. Aaker (1996 a, b) alternatively presents a perspective of CBBE which consists of five different overall dimensions of CBBE: brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets such as competitive advantage. Aaker and Joachimsthaler (2000) simplify this model to include only the four primary

dimensions of brand awareness, perceived quality, brand associations, and brand loyalty. Yoo and Donthu (2001) propose a ten-item operationalization of the brand equity construct based on the three dimensions: brand loyalty, perceived quality, and brand awareness/associations. Keller (2003) argues for a six-factor model of CBBE that includes brand salience, brand performance, brand imagery, brand judgments, feelings toward the brand, and resonance. Different steps representing a pyramid have been suggested by Keller (2003) to build brand equity. The starting point or base of the pyramid is brand salience. The next building block is divided into two: brand performance and brand imagery. Above these building blocks are customer judgments and feelings. Finally, at the top of the pyramid is a brand resonance that reflects intense and active loyalty. The pyramid suggests that customer-based brand equity occurs when the customer is familiar with the brand and holds some strong, favorable and unique brand associations in the memory that resonate with customers. Therefore, a brand has positive customer-based brand equity when customers react positively to a product in the market because customers can identify the brand easily.

Netemeyer, Krishnan, Pullig, Wang, Yagci, Dean, Ricjs, and Wirth (2004) suggest that perceived brand quality, perceived brand value, and brand uniqueness are the most relevant (i.e. core facets) that predict CBBE (operationalized as the willingness to pay a price premium) for a brand. It appears that different researchers proposed different dimensions of brand equity. However, the most commonly measured are based on Aaker (1991, 1996) and Keller (1993).

Brand Awareness

Brand awareness is one component of brand knowledge (Keller, 2003). According to Keller (1993), brand awareness consists of two sub-dimensions: recall and recognition. Brand recognition is related to customers' ability to confirm prior

exposure to the brand when the brand is given as a cue. Similarly, brand recall relates to customers' ability to retrieve the brand from memory when given the product category, the needs fulfilled by the category or a purchase or usage situation as cue. In other words it is what comes to mind when the brand's name is recalled for the first time. Therefore, brand awareness refers to the ability of a potential buyer to recognize or recall a brand as a member of a certain product category (Aaker, 1991).

Brand recognition is created by increasing the familiarity of the brand through repeated exposure, and brand recall is improved by linking memory with the appropriate product categories or other situational purchase or consumption cues (Alba & Hutchinson, 1987). Therefore, Aaker (1991) argues that brand awareness can be a sign of quality and commitment, letting customers become familiar with a brand and helping them consider it at the point of purchase. Customers' perceptions and attitudes towards a brand are said to be driven by the level of brand awareness and thus it plays an important role in brand choice and loyalty (Aaker, 1996a; Keller, 1993).

The higher level of awareness increases the likelihood that the brand will be in the consideration set (Nedugadi, 1990) which will influence customers' decision making. Past researches have shown that brand awareness is a dominant choice tactic among customers (Cobb-Walgren, Ruble & Donthu, 1995; D'souza & Rao, 1995). If the awareness of brands is high among customers, it means the brand is familiar and reputable. For the purpose of this study brand awareness is operationalized as the strengths of brand's presence in customers' mind in terms of brand recognition and recall (Pappu, Quester, & Cooksey, 2005).

Perceived Quality

Perceived quality is the customer's subjective judgments about a product's overall excellence or superiority with respect to intended purpose relative to alternatives (Zeithaml, 1988). These subjective evaluations of product quality are made by the customers after experiencing the brand, but not by the managers or experts (Yoo & Donthu, 2001). There are different types of attributes and benefits such as primary and supplementary features, reliability, effectiveness, efficiency etc. that often underlie brand performance (Kotler & Keller, 2009). Aaker (1991) has suggested that perceived quality lends value to a brand in several ways: reason-to-buy, differentiation, price premium, channel member interest, and brand extensions. Marketers across all product and service categories have increasingly recognized the importance of perceived quality in brand decisions (Morton, 1994).

Perceived quality though is a part of brand association deserves as a separate source of brand equity, because it can be important strategic decision to improve brand equity (Aaker, 1991). Empirical research on 3,000 businesses has shown that perceived quality is the single most important contributor to return on investment among the variables measured (Jacobson & Aaker, 1987). Business managers consider perceived quality as top-rated asset of the firm for sustainable competitive advantage of their firms (Aaker, 1989). For this study perceived quality is defined as students' perception of a particular institution that it provides reliable and quality education over other competitors.

Brand Image / Association

Another source of brand equity is brand associations/differentiation. It embraces a real concern for marketers: how to differentiate the brand in a crowded and competitive environment. Customers perceive a brand as being different from the rest because they perceive the value of a product conferred by the brand value

proposition, which usually comprises of functional, emotional and or symbolic benefits (Aaker & Joachimsthaler, 2000). Since brand's functional association is already reflected in perceived quality, brand image / association as a separate dimension seems to be relevant. A brand that generates value has personality and enjoys organizational associations which can differentiate itself from others and thus will stand strong against competitors' brands (Jacobson & Aaker, 1987). Therefore, brand image dimensions are unique to a product or to a brand and they are brand value, brand personality and organizational associations (Aaker, 1996b). Therefore, brand image is symbolic representation which is believed to contain the meaning of the brand for customers (Keller, 1993). Brand image is related to the aesthetic considerations that go beyond functional aspects and depends on sensory aspects such as how a product looks and feels. Therefore, brand imagery deals with the extrinsic properties of the product or service including the ways in which the brand attempts to meet customers' psychological or social needs (Keller, 2003). For this study brand image refers to unique meaning that students have on a particular institution over competing institutions such as trust, pride, and valuable. Therefore, two types of brand images are relevant in this study. They are perceived value and organizational association.

Perceived value refers to perceived value for the costs. It assesses customers' overall assessment of the utilities of the brand based on perception of what is received in terms of quality and satisfaction and what is given in terms of price and non-monetary costs relative to other brands. Since this perceived value is related to quality in comparison to price or costs, perceived quality may be surrogate for the perceived value (Netemeyer et. al., 2004).

Organization association is a type of brand association referring to likings, pride and trust associated with the organization which marketed the products and services (Aaker, 1996). Therefore, organizational associations are those belief held by the customers that the company that market the brand is honest, trustworthy and cares about its customers.

Combination of perceived quality and brand image leads to brand association which is said to be anything "linked" in memory to a brand (Aaker, 1991). Brand association is formed as a result of customers' brand beliefs which can be created by marketer, formed by the customers themselves through direct experiences with the products, and or formed by customers through inferences based on existing associations (Aaker, 1991). The brand association making up the brand image and meaning can be characterized and profiled according to three important dimensions – strengths, favorability and uniqueness (Keller, 2003).

Brand Loyalty

The fourth and major component of the brand equity dimension is loyalty. Aaker, (1991) defines brand loyalty as the attachment that a customer has to a brand. Loyal customers may use more of their preferred brand transforming this into financial performance and a larger market share (Assael, 1998; Clarke, 2001). Specifically, loyal customers may be willing to pay more for a branded product because price premium and customer satisfaction have been closely related to brand loyalty (Aaker, 1991). Premium price is an indicator of brand loyalty and refers to the amount a customer will pay for the brand in comparison to another brand offering similar benefits (Aaker, 1996b).

Relevance to Measure Brand Construct and its Structure in Higher Education

The four sources of customer based brand equity have been widely accepted and used by many researchers (Keller, 1993, Yoo & Donthu, 2001). Although this framework offers real measures to academics and practitioners, Aaker (1991, 1996a) agrees that a shorter version will be more convenient to effectively evaluate and monitor brand equity across products and markets. He also suggests that the measures are susceptible to change according to the brand context and task. In addition, Keller's framework consists of two basic approaches; the direct and indirect approaches (Keller, 1993). The direct approach assesses the actual impact of brand knowledge on customers' response to different elements of the firm's marketing programs (Keller, 2003). The indirect approach deals with the identification of possible sources of brand equity by tracking customers' brand knowledge structures (Keller, 1993, Park & Srinivasan, 1994). Keller (1993) recommends using both the direct and indirect approaches as they complement each other.

While measuring brand construct and structure, one has to measure brand knowledge structures which is conceptualized as the customers' stored memory of brand information and concepts linked with a variety of associations (Keller, 2003). These structures are the central point to creating brand equity because they constitute the differential effect that drives brand equity (Keller, 2003). According to Keller (2003), brand knowledge is composed of brand awareness and brand associations and they are susceptible to change through time. Brand awareness relates to the strength of the brand node or trace in memory as reflected by customers' ability to recall or recognize the brand under different conditions (Keller, 2003). It has been assessed through a variety of aided and unaided memory measures that apply to test brand recall and recognition.

Brand association / image is described as customers' perceptions and preferences for a brand as reflected by the various types of brand associations held in customers' memory. Both brand awareness and brand image are driven by marketing programs that should aim at creating strong, favorable, and unique associations to the brand in memory.

Brand Equity as Ultimate Measure of Brand Outcome

In summary, brand equity construct comprises of four different dimensions: brand awareness, perceived quality, brand image and brand loyalty. The first three dimensions refer to brand knowledge which Keller (2003) combined into two: brand awareness and brand association. The last dimension i.e. loyalty is the outcome the other earlier dimensions.

This study explored the structure and intensity of brand knowledge in terms of awareness, perceived quality and image, and outcome of the knowledge on the brand equity. Brand loyalty is a popular variable to measure outcome of the brand knowledge which connotes repeat purchase, willingness to pay premium price and customers' satisfactions. All these variables cannot be measured in higher education for three reasons; 1) Higher education at master program will not be repeatedly purchased, 2) customers' satisfaction cannot be fully measured until the study is complete, and 3) willingness to pay premium price will not be socially desirable questions to many of the students in Nepal. Therefore, brand loyalty was not measured rather brand equity as outcome measure of brand knowledge was used in this research.

This study adapted conceptualization of brand resonance as ultimate outcome of brand dimensions. Keller (2003) states that brand resonance is characterized in terms of intensity or the depth of the psychological bond that customers have with the

brand as well as the level of activities engendered by this loyalty for example the extent to which customers seek out brand information, events and other loyal customers. Besides purchase strong personal attachment besides purchase is necessary to create resonance. In addition, student might have enrolled in a particular higher education institution out of necessity despite their preference to other institution, because of lack of accessibility, affordability, and eligibility. Many students cannot apply in their most preferred institution because of above mentioned reasons, and many could not get through admission process in the institution. As a result they may be enrolled in their less preferred institution. They may be satisfied with the institution where they study but despite satisfaction they may still value other institution as the best choice. This type of attachment leads them to recommend their colleagues to pursue their study in their preferred institution rather than where they have been studying. In this case the students whether they have or they do not have chance to study in their preferred institution, may become brand evangelists and ambassadors and help to communicate about the brand (Keller 2003). This concept supports Fishbein's theory of reasoned action which proposes that to predict behavior more accurately it is important to determine the persons' attitude to that behavior such as attitudes towards purchasing the particular brand rather than attitudes towards the brand (Asseal, 1998). Applying this concept in higher education, attitudes towards recommending the institution is more relevant in this study to measure brand equity.

Scales for Cross Validating Brand Equity Measures

This research used three constructs and their scales to cross validate the brand equity constructs, namely brand attitudes, purchase intentions and acceptability of choice alternatives. Brand attitude should positively correlate with brand equity and associated constructs. Purchase intentions should be dependent variables of brand

equity with positive influence. Acceptability of choice alternative should have either negative or insignificant correlation.

Brand Attitude

Brand attitude was used for cross validation purpose in this research. Brand response as brand equity is associated with brand attitudes which is defined in terms of customers' overall evaluation of brand (Wilkie, 1990). Customers will evaluate the brand based on their perceived quality and brand image to determine the preferred brand in comparison to alternative brands. Therefore, customers' favorable brand beliefs will influence their purchase intentions and choice of the brand. Brand attitude is important because they often form the basis of action and behavior the customers take with the brand for example brand choice.

Purchase Intention

While assessing brand equity among the students their attitudes towards recommending others to study in the institution is more relevant than their purchase intention. To cross validate brand equity measure, this study attempted to use brand attitude and purchase intentions i.e. intention for enrollment. This construct was measured with the items such as I would like to study in this school, I intend to get admission and my willingness to get admission is very high (Burner, Hensel, & James, 2005). Purchase intention was used during survey on applicants.

Acceptability of Choice Alternatives

This scale was also used for cross validating brand equity. This scale measures whether the students prefer other school more than where they have been studying (Burner, Hensel, & James, 2005). If they prefer other school they will state that they would accept the school given the chance such as waiving of admission tests

or reducing admission fee or acceptance of their applications etc. This construct was measured through the statements such as if I need to change the school there are other good schools, I would probably be happy with other school etc. This constructs should not correlate or negatively correlate with brand equity.

Students as Customer of Higher Education

There are different views on students from the perspective of higher education such as they are customers or products. Some conceptualized them as co creator because they are the one of the major stakeholders along with faculty and corporate (Shahaida, Rahashekar & Nargundkar, 2009). Similarly Sverson and Wood (2007) viewed students as citizen of universities. Michael (1997) opined that universities are increasingly adopting consumerism because students are the chief stakeholders in terms of their relative size of population. The universities need to be student centered for enrolment management, resource attraction, quality management and cost control and students' satisfaction in order to attract more students, retain them, satisfy them and make them positively recommend others to join the university. With these concepts universities package its programs to offer qualifications and associated services that satisfy students. The students buy the complex bundle of benefits that satisfy different types of their needs. Although the ultimate benefit is graduate degree which the students sell to employers, employers rarely pay the university for offering the degree and the students make the decision to enroll in the universities and pay for the degree and services. Several researches used student as customers (e.g., Cubillo, Sanchez & Cervino, 2006; Ivy 2001, 2008).

Branding Higher Education Institutions

Emerging trend of international higher education market driven by world economies has forced higher education institutions to embrace the idea of the market

forces (Mazzarol, 1999). This global marketization of higher education services has forced higher education institutions to pay greater attentions to what students value in the services in order to survive in competitive environment (Ivy, 2001; Vaira, 2004) Expansion, diversification and growing competition have been contributing to the growth of the marketisation of HE (Smith, Scott, & Lynch, 1995). Consequently, different HE programs were developed and introduced to cater an increasingly diverse HE needs in the country and around the world. Prospective students have wider variety of universities for their choices. As a result the prospective students have increasingly become critical and analytical when they choose the university and institution (Bindsardi & Ewuklugo, 2003). Consequently, the higher education institutions are involved in increasing and intense struggle to attract new students (Nicholls et. al., 1995; Soutar & Gnot, 2002). Therefore attracting good students, retaining them and producing quality graduates have become challenges for many HE institutions for their sustainable growth. This type of market needs in HE have led to an emerging interest for the institutions to profile themselves in the market.

The image or brand of higher education institutions has become a strategic and managerial issue for not only increasing recruitment of qualified students and but also for attracting academic staff, resources and creating goodwill (Belanger, Mount & Wilson, 2002). In this context, educational institutions have growing pressure to maintain their competitive advantage by developing a distinctive market image. There have been considerable efforts to enhance brand image through ranking. For example, University branding and reputation management has been of concern for some time in the USA. Argenti (2000) points out that there are hundreds of ranking scales of business schools which have contributed in increase in admissions, placement, hiring and giving. However, this type of branding practices focusing on

improving ranking lists of higher education provide little added value for the society at large because most students are affected by other factors than reputation and image when making university choices even in the US. The students who have high ability to pay or who are from high income families use rankings to inform their choices (Dill, 2003).

Belanger, Mount and Wilson (2002) state that a brand in higher education is not built through creative logos or other symbolic features alone, but it is built through the experiences people have on complete services of the university. Though, graduate outcomes are important features of a university, there are many other variables such as reputation of teachers, quality of delivery, courses, infrastructure etc. contributing to the quality of education as valued by students. Therefore, perceptions of business school offerings and the image that a business school conveys need to be managed (Ivy, 2001).

Higher Education Service and Branding

Higher education is different from other types of products and services because they are intangible, not frequently purchased, and selection of higher education programs and higher education institutions demand a high level of involvement from customers (Nicholls et. al., 1995). Similarly evaluation of quality of higher education is complex and selection of higher education is a long-term decision for students (Baldwin & James, 2000). Therefore, brand research in higher education needs different perspective of analysis.

One of the perspectives is service marketing. Since higher education institutions provide education services, the brand perspective in education is related to service marketing. Various literatures argued that brand equity is an important

consideration for service marketers (Keller, 2001; Keller & Lehmann, 2003). Therefore the following theoretical framework is built upon the concepts of brand equity in higher education marketing.

The branding and positioning of a service is even more difficult than product (Park, Jaworski & MacInnis, 1986) because of its intangibility (Dibb & Simkin, 1993) where the perceived risk of making an incorrect purchase decision is high (Hill & Neeley, 1988). In such services, the service provider's image with a brand or name is critical to the purchasing decision to reduce perceived risk (Levitt, 1986). Therefore, the intangible nature of services increases the importance of the enterprise name (Berry & Parasuraman, 1993). In addition, service enterprises need to tangibilize their services in order to overcome the problems associated with intangibility (Shostack, 1977). Therefore the service enterprises need to present tangible clues to emphasize the realities of their service and differentiate it from competitors (Onkvisit & Shaw, 1988). Aaker (1996) found that service enterprise managers ranked reputation for quality and name recognition/high profile as significant sources of competitive advantage. Overall, brand in HE is a shorthand measure of whole range of criteria that make up the quality of a university which ease complexity to judge intangible quality (Belanger, Mount & Wilson, 2002).

Kotler & Keller (2009) highlighted the following implications of brand management in service. The intangibility of service has implication for the choice of brand elements such as giving easy to remember name, logo, symbol, character and slogan to facilitate brand recall and brand image. The physical facilities of the service providers such as environmental design, reception areas, apparel, and collateral material and so on are especially important, because of nonexistence of a physical

product. In addition, organizational association such as perceptions about the people who make up the organizations and who provide the service are also important for brand associations that may affect brand evaluation of service quality. One particularly important association is company credibility in terms of perceived expertise, trustworthiness and likeability.

Therefore, the branding process should be built in the distinctive institutional characteristics combining the expectations of staffs and students in order to create desired image (Albert, Ashforth & Dutton, 2000; Dutton, Duckerich & Harquail, 1994). Though branding of HE has gained prominence relatively little has been written on the marketing and branding of education markets (Mazzarol, 1999).

Students' Purchase Behavior

As mentioned above one of the reasons of gaining prominence of branding in HE is easing students' complex choice decision to make the right decisions from wide range of options. Meringe (2006) conceptualized choice as an iterative concept which is complex and involves multi-factorial process involving a wide range of influences on the decision. Selecting HE institutions for students is a complex decision making because it is important decision for entire life, such decisions are closely tied to the customers' ego and self image, and also involve financial, social and personal risks. Therefore, the customers make enduring high involvement while purchasing such products in collecting and processing information of more brands to evaluate them in a detailed and comprehensive manner (Asseal, 1998). Two conditions must be fulfilled in a complex purchasing behavior. Customers must have adequate time for extensive information search and processing, and they have adequate information and ability to process information to evaluate alternative brands (Greenleaf & Lehmann, 1995).

The brand evaluation leads to formation of brand attitude among customers. Brand attitude is customers' predisposition towards specific brands that cause customers to respond favorably or unfavorably toward them. Brand attitude represents belief formed about the brand that influences attitude towards brand, which then influence an intention to buy or not to buy (Asseal, 1998). Asseal (1998) further states that this sequence has been referred to as hierarchy of effects model of customer decision making. It stipulates the sequence which goes through in purchasing. The sequence involve cognitive (thinking and belief), affective (feeling and evaluation) and conative (action and behavioral). An important link exists between benefits and attitudes. When beliefs about the brand conform to the benefits customers desire to gain, customers will evaluate the brand favorably, and favorable brand evaluation is more likely to lead to an intention to buy the brand. This concept is consistent with Heider's balance theory which maintains that people seek to achieve balance between their thoughts (beliefs) and feelings (evaluations). If one is inconsistent with the other, customer will change their attitudes to create harmony in their cognitive structure (Asseal, 1998).

Asseal (1998) further states that Fishbein's Multiattribute model of attitudes describes attitude formation as a function of customer belief about the attributes and benefits of a brand. He further states that customers believe on the object possessing certain attributes and the evaluation of these attributes develop an attitude towards an object. Fishbein's theory of reasoned action emphasizes persons' attitude towards purchasing behavior rather than attitudes towards the brand in order to accurately predict the purchasing behavior. A customer may have a very positive attitude towards a particular HE institution but negative attitude towards enrolling in the institution because of high tuition fee, for example. This concept is significant for

understanding the pattern of brand equity formation particularly in higher education because ultimate result of branding is to make student select the HE education and retain them until they complete the study. Those students who cannot get enrolled in a particular institution but have positive brand equity will recommend their colleagues to pursue study in the institution. Therefore, both brand attitude and attitude towards purchase and retention are relevant to brand equity in higher education.

Students' Decision Criteria

Brand evaluation is influenced by motivation of students which guide them to develop decisions criteria for making a choice. Therefore it is necessary to analyze the theories of customers' motivations which drive them to develop brand attitudes leading to their choice decisions.

Meringe (2006) in her theoretical constructs in an article on university and course choice explained different model of choice. She stated about an economic model which assumes that students make rational choices based on precise or imprecise calculations of the relative rates of returns in terms of benefit through employment after graduation in relation to the costs incurred during the study in particular HE degree and institution. Another model states that the rational process is constrained by a realistic perception of opportunities and shaped by individual personality and influences of family background, culture and life history. The next model is even more contextual and structural which explains choice in the context of institutional, economic and cultural constraints imposed upon choosers by socio-economic, cultural and ethnic context. An integrated model brings together elements of these three models. According to this model choice involves three broad elements: the context of choice, the key choice influencers and the choosers themselves.

The last concept is comprehensive for analyzing brand attitudes in which choice is defined from the perspective of an expression of preferences in a particular moment of the decision-making cycle of the student. These choice decision models resemble brand equity formation. Making choice decision on HE program and institution is a problem solving process undertaken by applicants in a series of stages. They include need arousal, information search and evaluation of alternatives, purchase decision and the post purchase feeling respectively (Kotler & Keller, 2009).

Meringe (2006) also explained about Chapman's (1986) application of buying behavior theory in process of higher education selection. According to this theory selecting an institution or subject of study, students and their parents will pass through a number of uniquely definable stages. They include the following stages of purchase decision and corresponding relevance of brand building process on students; firstly pre-search behavior involves early thoughts about the future of prospective students. The students passively register the existence of information about HE which they are exposed to. They shortlist potential providers. Potential students' exposure to the information about the presence of HE institution will be helpful to develop brand recall at this stage. Secondly, search behavior follows next in which applicants search a variety of sources of information relating to a wide range of decision criteria to make up their minds on which HE institutions to choose. The key for institutions is to maximize information opportunities to students to facilitate the search process by helping them to develop belief about attributes and benefits of the institutions. This type of information helps the students to develop positive and favorable brand association in terms of perceived quality and brand image. Other stage is application stage in which students submit their applications to the selected institutions. This stage is also important for HE institutions to provide information through student

experiences about high standard of customer care and quick response to gain competitive advantage. These efforts are required to develop brand attitude. Since students tend to make applications in multiple institutions, giving additional exposure about the attributes and benefit will strengthen their intention to select the HE institutions and programs. Finally the applicants turn up for registration. This is the result of positive brand attitude which is referred as purchase behavior measured through brand equity outcome. However, such registration may be withdrawn after a few days because of early post purchase feelings and experiences leading to negative brand attitudes. Therefore, strong commitment to continue the study is required to sustain the choice or selection of HE. This type of strong commitment or intentions to continue study in particular HE institution is defined as ultimate results of branding i.e. brand equity. This brand equity can be cross validated with brand attitude, purchase intentions and intention to retain in the institution.

Targeting and Positioning

As mentioned earlier motivation of students differs as per the context, influencers and personality of students. Different students seek different attributes and benefits from HE institutions. A particular HE institution cannot address all those needs. Therefore, HE institutions have to position its presence in the selected market. Dibb (1997) has defined positioning as the process of designing an image and value to facilitate customers within target segments to understand what the company or brand stands for in relation to its competitors. Therefore, positioning involves three elements: developing an institutional brand or image, deciding on the market segments to serve, and developing a communication strategy.

Meringe (2006) made a review of empirical research in students' choice and HE institutions' market positioning. This review revealed the following broad three

levels of market segments. First is the global level which mainly deals with why students choose to study abroad. On a global level, push factors such as existing barriers to educational attainment in countries of origin, lack of career opportunities, deteriorating economic standards, dissatisfaction with the political situation, political violence and loss of confidence in the ability of governments to improve living conditions motivate student to go abroad for study. Pull factors attract students to specific countries in the developed world due to economic prospects including future employment, safe political and study environments, perceived high educational standards in host countries, the high quality of teaching, and opportunities for different benefits such as part time work, accessing funding, state assisted funding for family members and post graduate study.

Meringe (2006) also researched on students' choice of university at the national level and found out field of study preferences; course and institutional reputations, course entry scores; easy access to home and institutional characteristics are the major criteria. The third level is the choice of courses of study which is closely related to institutional choice decisions. Research in this area has identified a range of factors such as belief that school results will allow entry to the course; the reputation of the course among employers; graduate satisfaction from the course; graduate employment rates from the course; the quality of teaching in the course; approaches to teaching, learning and assessment on the course including opportunities for flexible study.

Related Research

Brand Equity Construct and its Structure and Research Methodology

The following section presents some empirical evidence of the relationship between customer-based sources of brand equity and brand equity outcomes in order

to support the validity of the conceptual framework. In addition, research methodologies used in the research for developing scales were also presented to support the methodological process followed in this study. The followings were the findings of the study of related research.

Cobb-Walgren, Ruble and Donthu (1995) empirically explored how brand value is created and what are its precise effects on customer preferences and purchase intentions. Brand equity was measured by customer's perceptions such as brand awareness (unaided and advertising), brand associations (positive, neutral, negative) and perceived qualities which were considered as brand equity sources. Two sets of brands: hotels for a service category and household cleansers for products were tested in the research. Each of the set includes two brands that are objectively similar, but they have invested markedly different levels of advertising spending over the past decade.

The customers were asked to list as many brands as they could to record the top of mind awareness of the brand. Then they were asked to list all descriptive words, thoughts and images that came to mind when the brand was mentioned for measuring degree of brand associations. Then they were asked if they had ever seen any advertisement for the respective brand and describe what the advertisement said to assess their advertisement awareness. Then the respondents were asked to rate different combination of attributes to be included in the brand to make them purchase. The respondents also rated different brands from very good to very bad to assess their brand preference. The brand usage intentions were lastly measured. A brand equity score was calculated by multiplying the number of associations by the importance of the attribute. Conjoint analysis was used to determine the impacts of brand association on brand equity. Regression analysis was used to determine the

relationship of brand equity and brand purchase intentions. Across both categories, the brand with the higher advertising budget yielded substantially higher levels of brand equity. Similarly, the brand with the higher equity in each category generated significantly greater preferences and purchase intentions.

Walfried, Mittel and Sharma (1995) presented a scale to measure customer based brand equity to compliment the methods of measuring the monetary value of brand equity. They operationalized brand equity as brand strengths which constitute the brand association held by customers in terms of greater confidence that customer place in brand than they do in its competitors. Such confidence translates into customers' loyalty and their willingness to pay a premium price for the brand. Therefore perceptual dimension was used as brand equity dimension rather than behavior which were considered as consequence of brand equity. Five dimensions of brand equity were used namely, perceived quality, perceived price/ value, social image, trustworthiness, and commitment.

Open ended question was asked as to why most people prefer a brand name product over unbranded or generic products. The responses were delineated to the five dimension of brand equity and some of their measures. This process generated 83 measurement items. After establishing content validity by marketing professors the items were reduced to 58 items. The first phase customers' survey was carried out on two product categories; pens and jeans. An analysis on this data resulted to 26 items. The items were further trimmed down to 17 items in second phase of study on Television monitors and watches. The respondents were asked to capture three brands simultaneously on each category. Through questionnaire survey, the brand of each category was analyzed. The scale rating were summed for each of the three brands to calculate overall brand equity measure and verified with price level of the

products. It was found that the average brand equity rating were higher in the highest priced brand. The resulting scale was significantly correlated with the overall brand equity measure.

Yoo, Donthu and Lee (2000) explored the relationships between selected marketing mix elements: price, store image, distribution intensity, advertising and price promotion and creation of brand equity. Brand equity was defined as the difference in customers' choice between the focal branded products and identical products given the same level of product features. The differences in customers' choice between focal brand and other brands were measured through intentions to buy or a preference for a focal brand over others. The brand dimensions used were perceived quality, brand loyalty and brand awareness with strong brand association thereby combining them into one. Brand equity implies degree of positive and strong associations related to the brand, perceived the brand is of high quality and customers are loyal to the brand. The dimensions of brand equity contributed positively towards increasing overall brand equity.

The items for scale of measurement were developed based on literature. All items were measured on five point likert scale. Perceived rather than actual marketing mix elements were used to measure marketing elements and brand equity dimensions. Overall brand equity was measured by asking customers their intentions to select the focal brand against its counterpart brand. The instrument was used on athletic shoes, camera film and color television sets for altogether twelve brands. The survey was conducted through self administered questionnaire. 34 items were retained through measurement of reliability, which was followed by exploratory factor analysis and confirmatory factor analysis respectively. The structure equation model through path analysis tested nomological validity of the scale.

The authors through this study supported a conceptual framework in which marketing elements are related to the brand equity dimensions. The dimensions are then related to overall brand equity. The result shows that the frequent price promotion such as price deals contributed negatively to the brand equity whereas high advertising spending, high price, good store image and high distribution intensity contributed positively to the brand equity.

Yoo and Donthu (2001) demonstrated a new customer based brand equity scale which is reliable, valid, parsimonious, and generalizable across American, Korean American and Korean cultures. This scale development was based on multi-step study in which a multidimensional CBBE drawn from Aaker's and Keller's conceptualization of brand equity were used. Brand equity was defined as incremental value of product due to the brand name. Four brand equity dimensions were proposed for the study namely, brand loyalty, brand awareness, perceived quality of brand and brand awareness.

Forty eight candidate scale items measures for brand equity dimensions were generated based on literature. Twenty two items were retained by initial psychometric assessment on the four brand dimensions. Through a pilot survey using five point likert scales on each items and analysis of reliability on the survey data the items were reduced to 17. Final survey was carried out by using the retained items. Final survey also included additional items for overall brand equity, attitudes towards brand and purchase intensions, and measured degree of involvement and purchase experiences. Exploratory factor analysis indicated the existence of three dimensions by combining brand awareness with association supporting findings of Yoo, Donthu and Lee (2000).

This study carried out three levels of analysis to develop a brand equity measures. An individual analysis determined common items and dimensions of each sample. Multi-group analysis examined factorial invariance of the items selected in individual analysis. A pooled analysis identified cultural free universal dimensions of brand equity. The study found brand loyalty, perceived quality and brand awareness/ association to be three reliable and valid dimensions of brand equity. Multi dimensional brand equity (MBE) index was calculated by adding means of the three identified brand equity dimensions. MBE were compared with purchase intentions and brand attitude to test construct validity. The correlation between overall brand equity and the MBE index supported the convergent validity of MBE.

Netemeyer et. al. (2004) presented the results of four studies that develop measures of core/ primary facets of CBBE. The facets chosen were perceived quality (PQ), perceived value for the costs (PVC), uniqueness and the willingness to pay a price premium for a brand. Results suggested that PQ, PVC and uniqueness are the direct antecedents for the willingness to pay price premium for a brand which is in turn direct antecedent for brand purchase behavior. This study examined their relationship with the related brand association and brand response variable (a nomological net).

This study started with focus groups and expert judgment which generated 65 items to tap the four primary facets of CBBE. The items were reduced to 37 items after judgment by marketing professors. Pretest study used 37 items, and principal component analysis and item analysis reduced the items to 23 items. Using these items a survey was carried out on four product categories – coal, toothpaste, athletic shoes and jeans. The questionnaire also included items to measure brand awareness,

familiarity and popularity, purchase intent, past percentage of brand purchase. This study resulted in retention of 17 items.

Using same items a main study 1 was conducted in on coca cola, Reebok athletic shoes and Levi's jeans by including items to measure organizational association and brand image consistency, brand purchase measures and past percentage of brand purchases. The analysis indicated three factors model comprising of PQ/PVC combined, uniqueness and price premium. Then the study 2 was conducted which confirmed the dimensions and these three dimensions were correlated with brand purchase intents and past percentage of purchase and also with other brand association. Study 3 examined the CBBE measures relationship with actual brand purchase behavior on cola and coffee. This study confirmed that CBBE measures were related with actual purchase behavior. Study 4 was done on three fast food restaurants and found that facets predict willingness to pay premium price and brand purchase behavior.

Pappu, Quester and Cookery (2005) supported four dimensions of CBBE across two product categories and six brands. The four dimensions were brand awareness, brand association, perceived quality and brand loyalty. Nineteen items pool were compiled from the literature. The study was on cars and televisions. Brand awareness was measured on dichotomous scale (yes / No) and the rest of scale were 11 point likert scale. Sixteen items were retained based on exploratory factor analysis. This study provided evidence of multidimensional CBBE through confirmatory factor analysis.

Buil, Chernatony and Martinez, (2008) investigated the measurement invariance of the customer-based brand equity scale across UK and Spanish customers. This study contributed in a development of valid and reliable brand equity

measures that are generalizable across different countries in order to study a concept of brand equity.

They conceptualized brand equity as a multi-dimensional concept consisting of brand awareness, perceived quality, brand associations and brand loyalty. They carried out a survey on the customers of two countries on widely available and well known products i.e. Coca Cola and Pepsi for soft drinks, Adidas and Nike for sports wear, Sony and Panasonic for customers electronics and BMW and Volkswagen for cars. They included brand awareness items developed by Yoo, Donthu and Lee (2000) and Netemeyer et. al. (2004); perceived quality by Pappu, Quester and Cooksey (2005, 2006), and brand loyalty by Yoo, Donthu and Lee (2000). Three kinds of associations were included to study detail structure. Different items were included in the following three kinds of brand associations in order to clarify the structure in detail such as perceived value (Lassar, Mittal & Sharma, 1995; Aaker, 1996; Netemeyer et al., 2004), brand personality (Aaker, 1996), and organizational associations (Aaker, 1996; Pappu, Quester & Cooksey, 2005, 2006). All these items were measured in seven point likert scale.

Group-level exploratory factor analyses and confirmatory factor analyses were used and they provided strong indications of configural invariance. The data were again analyzed through a multi-group confirmatory factor analysis. The results showed that the factor structure of brand equity scale was invariant across the two countries. Furthermore, it was found that cross-national customer responses to brand equity scale can be meaningfully compared (metric invariance), indicating that customers in both countries interpret and respond to the items in an equivalent manner.

In summary, the review of some prominent empirical research indicated that common brand dimensions used are brand awareness, perceived quality and brand

image or associations. Brand loyalty was not included in all the research. Ultimate outcome of brand dimensions was measured by overall brand equity. Research methods used in understanding the brand knowledge structure and construct are diverse and usually involve multi-step approaches which include item pool development through focus group discussion and literature review, series of surveys and analysis of data through reliability tests, exploratory factor analysis, confirmatory factor analysis and path analysis. The following sections explain the context and relevance of brand research in higher education.

Research on University Brand Choice

The following sections explain the prominent research on brand image, their antecedents and their effects on choice of university. These studies are relevant in the sense that choice of the students is the indicators of brand equity outcome. However, there has not been any research so far on direct antecedents of brand equity outcome such as brand awareness, perceived quality and brand image as accessible for this researcher.

Mazzarol and Soutar (1999) outlined a model of the factors that are critical to the establishment and maintenance of sustainable competitive advantage for education services enterprises in international markets based on theories of competitive advantage developed in industrial economics and management. The paper discusses the concepts involved in examining a theory of sustainable competitive advantage for services exports, and presents a model involved in achieving it. The model seeks to explain the strategic decision making environment in which the education exporter operates, and the outcome ideal to achieve a competitive advantage. The service component of education service has intangibility as a major distinguishing feature of services that applies particularly to education which include difficulty to define the

service offerings and separating production from consumption, and heterogeneity of services.

A model of sustainable competitive advantage for education service enterprises in international markets has been derived from the theories of sustainable competitive advantage and services marketing. The model suggests that "market success" (measured by growth in market share and profits) is the outcome of delivering a successful combination of "distinctive competencies" that gain and sustain a competitive edge over rivals within the markets. They emphasized that brand identity is required to overcome the problems associated with intangibility, and to present tangible clues to emphasize the realities of their service and to differentiate it from competitors and to reduce the perceived risk of making an incorrect purchase decision of students.

Ford, Joseph and Joseph (1999) stated a need for assessment of customer-perceived service quality for differentiation purposes in order to cope up with intense competition in higher education. An instrument was developed with an importance/ performance in seven determinant choice criteria groupings. This instrument was used in a survey in New Zealand and the USA students to validate the instruments and to draw strategic implication of the university management.

This study focused on the perceptions of the business students in a cross cultural setting in the New Zealand and the USA. This study assessed and compared the perceptions of undergraduate business students in the major urban universities in the two countries. Focus group discussions were carried out in two different countries and list of attributes were generated and included in questionnaires. They identified seven factors with 20 items. The items comprised of program issues with 6 items,

academic reputation with 3 items, physical aspects/ costs 4 items, career opportunities 2 items, location 2 items, time 1 item and influence from family and peers word of mouth 2 items. The questionnaire included the students' perception of an excellent university, the importance of ranking of university attributes and students' perceptions of their own university. The survey data was collected from 616 students from New Zealand and 206 from the USA. The survey data were analyzed separately for the two countries using factor analysis, followed by assessment of the student perceptions of the attributes, the importance of the factor groupings and the perception of the students on their own university.

Academic reputation was considered as the most important factors followed by career opportunities and program issues. Negative value between importance and performance score identified potentially problematic attributes. They constructed the importance-performance grid to pictorially depict gap between performance and importance. They found that factor loading was different in different countries indicating need of validating the instruments and findings in different cultures.

Similarly, Ivy (2001), in his study stated a need for universities to create and maintain a distinctive image in the market place because of increasing competition for students and decreasing funding for the universities. He found that higher education institutions are becoming increasingly aggressive in their marketing activities to convey their favorable image on the prospective students, employers, funding agencies and general public. Based on the study in the UK and South Africa he explored marketing practices of the universities for conveying their institutional image through unique positioning strategies for students' recruitment.

He conceptualized that distinctive institutional image create students' willingness to apply to that institution for enrolment. University image is defined as the sum of beliefs, ideas and impressions that students, employers and donors have on institutions relative to the images conveyed by competing higher education institutions. An institution's perceived quality is more important than actual quality because it creates prestige or reputation for quality excellence which guides the decision of publics towards the institutions. The images are formed from word of mouth, past experiences and marketing activities of the institutions.

Twenty seven different marketing tools for student recruitment were listed based on review of literature and interview with four marketing officers of the university. A survey was conducted through self administered questionnaire on 91 different institutions in the UK and the South Africa. Examples of the tools were price (e.g. having lower tuition fees than competitors), and promotional elements (e.g. recruiter visits to schools). The respondents were asked in five point likert scale to score the effectiveness of these tools in attracting new students to their program. Correspondence analysis assessed the positioning of four different types of higher education institutions. This analysis method is suggested as a tool to marketer and institutional planners in higher education institutions to visualize their competitive advantages and disadvantages in relation to competing institutions.

Souter and Turner (2002) also examined what determine student's university preferences using adaptive conjoint analysis (ACA) to investigate the importance of a number of attributes to high school leavers in Australia. Results indicated that four most important determinants of university preference were course suitability, academic reputation, job prospects, and teaching quality. This research drew

significant implications for education managers to develop marketing strategies and programs.

This study identified major factors that influence high school leavers' university preferences, and the relative importance they attach to these factors across different groups of school leavers. This study listed ten attributes based on previous research. This study ranked different attributes based on a survey on 259 final year high school students in Australia. Some examples of the factors were type of university, ability to transform, academic reputation, family opinion, friends etc. A cluster analysis and conjoint analysis on the utility scores determined the segments of prospective students. The results indicated similar preferences over the attributes. The results provide an approach for understanding the way students trade off between competing attributes and provide an understanding of the attributes that are most likely to create positive preference.

Rowley (2003) proposed the use of relationship management as a perspective on student retention management in higher education. This study proposed the relationship marketing and management approach focusing on development of students' loyalty and commitment to the universities. This study is based on review of relationship marketing model. The study suggested that the concept of the relationship life cycle provides a useful framework for structuring and analyzing the development of students' relationship with their universities in order to increase students' loyalty in terms of attitudinal and behavioral dimensions. Withdrawal from a course is suggested as an extreme form of disloyal behavior. Therefore, students' loyalty is associated with the customer's willingness to continue relationship, which is often represented by switching behaviors or the propensity to switch to another

provider. Loyalty is demonstrated by intention to make repurchase and word of mouth recommendations to friends and colleagues. Loyal students not only stay themselves in the university, but also encourage other students to stay. However he warned that though they do not have positive affinity for the institutions, they may retain in the institutions for a variety of reasons such as they do not have good alternative and switching cost is too high. This study brought out an important facet of this relationship development in the institutions. Such relationships have to be maintained by different service agents through different stages of the relationship. Therefore sharing of students' knowledge across the university are crucial.

Binsardi and Ekwulugo (2003) investigated international students' perception about the UK education to assess the competitive position of UK universities in the world market to draw implication for policy makers and service providers. The results indicated the importance of pricing, product and promotional variables in designing and marketing UK education abroad.

They conceptualized that for universities to succeed, they should build relationship with all the stakeholders such as government, parents, and students' employers. The students will be satisfied with the core benefit such as employment, status, lifestyle; the tangible attributes such as the physical layout of the campus, the library, laboratories and sporting facilities; and augmented or intangible attributes such as library membership for graduates, student loans and finance, an employment or placement service, etc.

The study employed both qualitative and quantitative methodology. First, the survey on 62 international students was undertaken to investigate their perceptions on the UK education system in terms of the traditional marketing mix such as price,

product, place and promotion variables. A ranking – independence analysis of Chi-square statistics was used in this survey data. Second, the qualitative approach of "in-depth interviews" was employed for probing more detailed issues on these variables in the same respondents. The secondary data were employed for estimating a trend regression on overseas study enrolment in the Universities.

The survey students ranked different aspects of marketing UK education in order of importance such as the reasons for choosing the UK for the study, the next option if not in the UK, the best way to attract international students to come to the UK, and the best promotional strategy and media. The study revealed that the international recognition was the first reason to study abroad followed by the ease of university entrance and immigration procedures; the ease of working during and after the course, and the fourth was the cost of living and other reasons. The USA was the first choice of country to study, followed by Australia, Canada, and European nations, Japan, etc.

This study strongly suggested that the best way to attract more international students to the UK is to concentrate on the price variables followed by giving more scholarships to international students, and provide better care and services to present students. The best promotional strategy is to involve alumni networks and contacts, as most respondents learned about the UK education via alumni, friends and relatives. The research showed that most of the foreign students' needs are clustered around the core and the tangible characteristics of products such as academic recognition, quality, follow-up services, etc., and price such as fee, scholarships, and students' perception of value.

Gray, Fam and Llanes (2003) studied branding practices of universities in Asian markets. They investigated the values that students of Malaysia, Singapore and Hong Kong have on university education of New Zealand, and the media they used to gain information about the universities. Study conceptualized that since core offerings of university degrees are consistent across the three markets, universities should try to develop augmented components such as delivery methods, scholarships, entry requirements and cross-crediting of previous education according to the needs of various target markets in order to create favorable brand preferences among the students. This study also explored the degree to which university branding messages and promotional media need to be adapted to attract students.

The communication media were chosen from interviews with six international marketing managers of universities in New Zealand to identify the most commonly used promotional media and brand positioning statements. They found that brand positioning statements used by the university were the core and augmented product features. Three focus group discussions with Asian students attending university education in New Zealand revealed different media preferences of the students. Survey was carried out involving 1,096 potential international students studying in New Zealand, Malaysia, Singapore and Hong Kong. The self-completion questionnaire comprised of advertising and promotion tools (communication media), and importance of promotion tools in communicating advertising messages to the students. A six-point importance scale was used to determine the importance of each of the 19 promotional tools and 34 brand positioning statements. Differences in mean responses by students were assessed using one-way analysis of variance. Principal component factor analysis with a varimax rotation was used to determine the underlying dimensions of positioning statements.

The survey results suggested that the World Wide Web (WWW) and print media are perceived to be the most important sources of university information in all three Asian markets. Students were found to have considered themselves to be the main decision makers. Parents appeared to be an important secondary group of decision makers.

Factor analysis indicated five main brand positioning dimensions such as a university's learning environment (including excellent staff, facilities and research resources), reputation (including brand name, achievements and high standard of education), graduate career prospects (including graduates' employment prospects and expected income, and employers' views of graduates), destination image (including political stability, safety and hospitality) and cultural integration (including religious freedom and cultural diversity). One-way analysis of variance suggested significant differences in the mean responses between students from Malaysia, Singapore and Hong Kong over the perceived importance of these five groups of brand positioning statements.

This study drew managerial implications for managing brand image and resources for improved market profile or recognition, reputation for quality, courses and program, strength of financial resources, size; and influence of alumni. This study drew important implications for positioning of international university brands in Asian markets in the context of growing trend of importing of foreign fee-paying students to home campuses.

Meringe (2006) stated that introduction of students fees in increasingly competitive higher education environment will make potential applicants to higher education consumerists. This study explored the factors students consider important

in their decision making related to choice of university and course of study. A survey was conducted on 387 students of schools and colleges in the UK with 35 university choice factors grouped into seven Ps of higher education market in 10 point likert scale. The students ranked the factors accordingly.

The survey also included 10 items such as interest in subject, institutional and course prestige, employment and advices from teachers and parents. The students ranked them to identify factors influencing university, subject or course choice. Simple descriptive statistics were used to identify the factors students consider most important in their choice and decision making. The results indicated that employment and career prospective was significant basis of students' choice decisions. Student also considered program and price as important factors. Teachers' influences are the strongest factors influencing choice of university and course and the parents are the least important factor. Program, price, place and prominence were found to be the most important factors determining students' choice of university.

Cubillo, Sanchez and Cervino (2006) in a conceptual article proposed a theoretical model that integrates the different groups of factors influencing the decision-making process of international students. They listed different dimensions and explained those factors which determine students' choice. In this model the purchase intention was conceptualized as an independent variable. The dependent factors were students' personal reasons, country image, city image, institution image; and evaluation of study program.

The paper stated that study overseas is a complex and risky decision because this decision involves purchase of services. Service evaluation such as the image of the brand, the institution, and the country of destination in relation to competitors play

vital role in purchase decision of the students. Most of the quality attributes in higher education cannot be perceived, felt, or tested in advance. In higher education, quality may vary according to different circumstances and different meanings to different customers. For example, when the students make initial contacts with the institution by mail, e-mail, or phone requesting information about the institution, the programs, and the entry requirements, they get the first service image impact. Prospective students develop their preference to join in the institution based on what they consider important for them, and then make a conscious/unconscious trade-off among the attributes. The purchase intention is used as a predictor for the preferential choices of customers.

A total of 19 independent variables grouped into four factors were identified in existing literature. The independent variable identified were personal reasons (employment, status, networking as core benefits for the students). Recommendation from family, friends, or acquaintances who have already selected the services is one of the most important factors included in the choice of institution image and program evaluation.

The study concluded that a positive institutional image can strongly influence the decision to attend an educational institution. The students' institution selection is determined by several factors such as the academic reputation of the institution, the quality and expertise of its teaching faculty, attractiveness and campus atmosphere. The institution image is the sum of opinions, ideas, and impressions that prospective students have on the institution. These opinions are formed from word of mouth, past experience and marketing activities of the institution.

Very often the perception of the institution's excellence goes beyond its actual quality. Therefore, the quality of reputation and branding are two important sources which lead to students' satisfactions. The satisfaction of the customer is affected by expectations and perceived quality. Institutional image include the physical environment. Other factors influencing the institution image through auxiliary services are: library facilities, availability of computers, quality of library facilities, availability of quiet areas (i.e. study rooms), and availability of areas for self-study. Program evaluation is conceptualized as the attitude of students toward targeted program such as wide selection of courses, their quality, and international recognition of the degree, entry requirements, costs and availability of financial support. The institution's image positively influences the evaluation of the program to be studied.

Ivy (2008) presented a new marketing mix based on the MBA students' attitudes and opinions towards the marketing initiatives of business schools in South Africa. The traditional marketing tools historically grouped into 4 Ps. They are product which is conceptualized as the design of degree such as curriculum and program duration to meet the needs of the students and to influence business school choice. Price refers to tuition fee. Place refers to providing access to lecture and support materials such as virtual learning media, and distance learning opportunities. Promotion encompasses all tools used to provide the market with information on its offerings such as advertising, publicity, public relations and sales promotional efforts. The service marketing mix also includes people which indicated academic and administrative staff of the university that interact with students. Additional 2 Ps are physical facilities and processes. Physical facilities include tangible components of the service offerings such as appearance of buildings and lecture facilities at

universities, and process are administrative and bureaucratic functions of university such as handling of enquiry to registrations, course evaluation etc.

The study approach was a quantitative survey of students registered at 12 state subsidized universities in South Africa. Over 500 newly registered MBA students participated in self completion questionnaire survey which measured their attitudes and the importance of 25 traditional service marketing mix tools on which they were exposed to during the selection of the business schools. Five point likert scales were used for the measurement.

The factor analyzed data showed seven quite distinct underlying factors in the marketing activities of these business schools. People, promotion and price are the same elements of the traditional marketing mix. There were however four different elements: program, prominence, prospectus and premium. Program included range of electives and major course offered. Prominence included university image such as academic staff reputation, on line information and league table. Similarly, prospectus included promotion related items such as hard copy of the prospectus and direct mail. Finally premium included those things that act as an incentive that adds special value to offerings such as availability of accommodation, computer facilities, class size etc. The most prominent factors are program followed by prominence, price and prospectus respectively.

Ho and Hung (2008), while examining how a graduate institution at National Chiayi University (NCYU) can develop effective marketing strategies found the five most important factors for students' university selection. They were employability, curriculum, academic reputation, faculty, and research environment.

They conceptualized that educational institutions come up with clear marketing objectives which include market segmentation, targeting and positioning. Market segmentation could be based on benefits sought by students, and their observable characteristics. The university will design their program offers and carry out marketing activities that match the targeted students' expectations in order to serve the segments more efficiently and effectively.

Based on literature review and interviews with 20 students, they identified 14 factors that prospective student required from the universities, which were again grouped into five categories such as living (location), learning (faculty and curriculum), reputation (academic reputation), economy (tuition and employability) and strategy (graduation requirement and pass rates). Using these factors in a survey questionnaire, a survey was conducted on stratified and randomly sampled 640 undergraduate students in 14 universities in four different areas in Taiwan. There were two types of questionnaires. One was a five point likert's scale questionnaire regarding school images, and another was a nine-point scale questionnaire to identify preference of one criterion over another. The weight of each criterion was calculated by using positive reciprocal matrix. The data were analyzed using an integrated analytic hierarchy process, cluster analysis and correspondence analysis.

The results indicated that the student's selection of an ideal school depend on their perceptions of university providing learning followed by economy and reputation, living, and strategy. Analysis of further sub criteria indicated five most important sub-criteria; employability, curriculum, academic reputation, faculty, and research environment in the university. This study through cluster analysis found out five discernable clusters of prospective students. Some students are found to be

concerned with all the above mentioned five criteria except strategy, another group of students have less concerns on these criteria. Some students emphasized on learning and economy only, and other group of students emphasized on learning, reputation, and economy. Final group of students strongly emphasized renowned reputation, outstanding learning environment, abundant economic support and easier graduation. The last group of students was of the largest population among the groups. This result suggested that many students exhibit careful or even meticulous attention to detail in their education choices. Correspondence analysis displayed the relative positions of the 14 school selection factors and the 11 universities. The combination of market segmentation and market positioning offers an even better foundation for developing effective marketing strategies.

This study indicated different expectations and requirements of the students as the basis for understanding students' perceptions on different universities on which target market are selected and brand positioning of the university are developed.

Shahaida, Rajashekar, and Nargundkar (2009) based on literature review and discussion with academicians in Indian B-schools developed a conceptual model of B-school branding. They stated that business school (B-school) branding is crucial to distinguish the services provided by one B-school from another in the context of changing market forces. They examined the role of a student in a B-school in the services marketing perspective. They found that some B-schools have adopted certain branding activities, but they lack organized holistic approach to branding activities. They proposed a holistic conceptual model. The model highlights contributions of students, faculty and corporate in branding of B-school and its management.

They state that business school has dual mission of educating practitioners and creating knowledge through research. They proposed two major dimensions for branding of business schools: brand creation and perceived brand. Brand creation activity is determined by top management which takes care of expectations of the three major stakeholders of business schools; students, faculty and corporate. They need corresponding organizational culture and policies to support this management commitment. Brand creation process also involves strategic brand management to develop value proposition to attract, satisfy and retain major stakeholders in order to develop sustainable competitive advantages. Another aspect of brand building is tactical which involve implementation of brand marketing program and measurement of brand performance.

Second dimension is perceived brand which aims at building stakeholders' satisfaction. Relevant factors of students are admission process, teaching learning, infrastructure, and placement records. Relevant factors for faculty are recruitment and selection process, salary, performance appraisal and rewards etc. The corporate sectors require skills, attitudes and behaviors of the students.

In summary, the above mentioned literature review of empirical research and conceptual paper suggested that different groups of students have different perceptions on higher education institutions. These perceptions and image are influenced by varieties of program attributes and messages of the university received from advertisements, friends, teachers and parents. These perceptions contribute in development of institutional image of the institutions on students. These perceptions determine their choice decision of institutions, study programs and courses of study. The students develop loyalty and commitment towards institutions when they are

satisfied during their study. This concept is related to brand equity formation and its antecedents. For example, favorable exposure to information and experience of students will develop a favorable perceptions and image of institutions among the students. These favorable brand awareness and association will lead to choice of the institutions, and loyalty and commitment towards the institutions. The students with higher degree of loyalty and commitment whether they study in the same institution or not will recommend others to choose the institution.

Therefore, ultimate objective of brand management of the higher education institutions appeared to develop favorable commitments and loyalty among the applicants and students. In order to earn brand equity, top management of higher education institutions should have vision to develop certain brand image among the students and other stakeholders. This type of vision should be supported by strategic brand management of the institutions, and continuous measurement and monitoring of brand perception among the stakeholders. Such type of brand management will help institutions to develop sustainable competitive advantages necessary for present day environment of higher education market.

The review of literature indicated that there are substantial empirical research on university choice and its antecedents such as students' perceptions on program attributes, media and message and institutional image. However, research on the effects of such perception on students' loyalty and commitments has been insufficient. In addition, majority of empirical research were carried out in international higher education market especially for attracting students to the universities in the UK, the USA and Australia. The research methodologies used were dominantly quantitative

involving multivariate analysis such as factor analysis, cluster analysis, conjoint analysis and correspondence analysis.

Limitation in Current Brand Equity Measures for Higher Education

The research in brand and marketing in higher education have not integrated choice factors such as program and message attributes to brand knowledge structure and construct. These researches did not measure outcome of these attributes in terms of students' loyalty and commitment across different universities and institutions. It appears that brand equity concept has not yet started in research of higher education though there are several research on perceptions, brand positioning and brand image. All the previous research was focused on choice criteria and students' attraction. They focused on different marketing variables as antecedents of choice of institutions and programs. Although brand equity also reflects choice intentions, brand management could not be improved without understanding the knowledge structure of brand dimensions. Therefore, this research is required to understand brand knowledge and its structure among students and their effects on brand equity. The antecedents of the brand knowledge are program and message attributes. The first step to understand the brand knowledge structure and its effects on brand equity is to develop a scale to measure them.

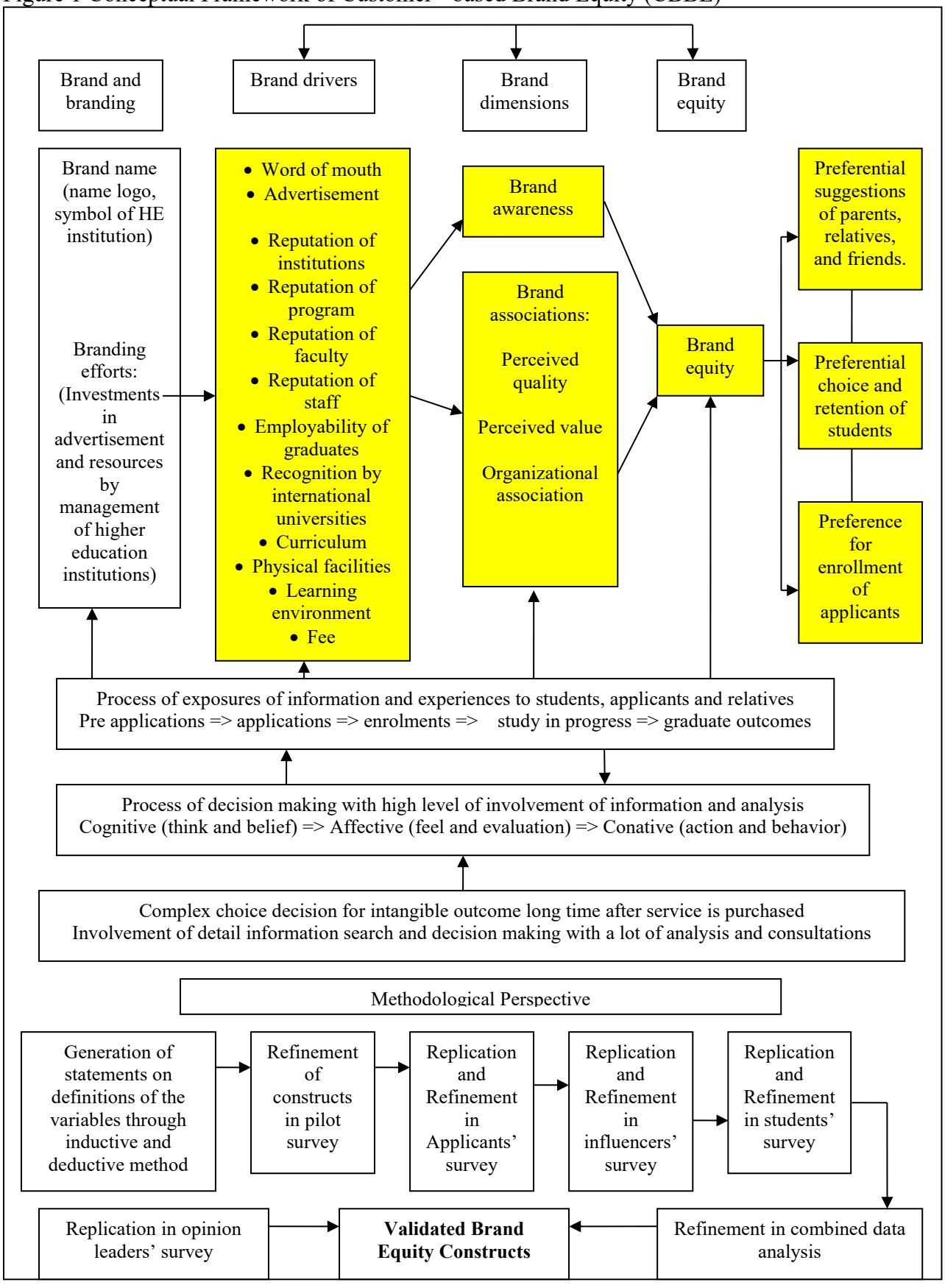
One more dimension identified by literature review is that choice of institutions is not only due to positive image and perceptions on institutions but may also be due to compulsion. The students who have chosen an institution due to compulsion still may recommend others to study in an institution because of favorable brand perceptions on it. Therefore choice and choice intentions alone will not be sufficient indicators of positive perceptions and preferences. The constructs of brand equity and brand dimensions will measure the students' knowledge, perceptions,

preferences and commitment on a particular institution against its competitors offering same type of degree.

Conceptual Framework of Brand Equity Formation in Higher Education

Based on overall review of literature the following conceptual framework was prepared for understanding brand building process and outcome as indicated in figure 1. The shaded area of the diagram was the focus of this research. The methodological perspectives for investigating the composition and structure of the brand equity were also indicated in the conceptual framework which was explained in research methodology chapter of this report.

Figure 1 Conceptual Framework of Customer - based Brand Equity (CBBE)



Variables under the Study and their Relationship

The above mentioned conceptual framework has been prepared for this research based on the literature on brand equity of different products and services (Aaker, 1991, Keller 2003, Yoo & Donthu, 2001, 2002) and theories of high involvement purchase decision behaviors for service (Asseal, 1998). The institutions have different names, associated logos and symbols to remind students and other stakeholders. They develop education programs with curriculum, they select faculties to deliver programs and they decide the facilities and other services for the students. These activities result in a complete design of program offers with different attributes such quality of faculties, curriculum, infrastructure, international reputation, employment perspective and so on. The institutions design message and put them in communication media to attract students and other stakeholders for enrolment and complete the course. These program and message attributes will be exposed to applicants, students, parents and other stakeholders during different stages of contacts with institutions such as application, admission, class delivery, graduation and alumni. These exposures will contribute in development of knowledge about and perception on the institution among the students and other stakeholders. In this process students go through a sequence of experiences starting from cognitive (thinking and belief), leading to affective (feeling and evaluation) and finally conative (action and behavioral) stages. With an intensive interaction with the education institutions and their programs students develop positive or negative perceptions on the program offers of the institutions. They may perceive the institutions as having good or bad quality faculty, curriculum, and reputation etc. This brand knowledge and perceptions developed by program and message attributes on students and other stakeholder are categorized under brand dimensions which include brand awareness and brand

association (perceived quality and brand associations). Positive perceptions will develop positive effects on brand dimensions. The favorable brand perceptions will lead to development of positive brand equity which result in preference and intentions to select the institution for the study, readiness to recommend others to study in the institution and intentions to complete the study in the institution etc. This preference is also indicated by students' brand attitudes. Therefore, brand equity in this research does not limit to students' choice intentions rather focus is on preference and intention to recommend others to study in the institution.

This study used the variables indicated by shaded areas in the conceptual framework presented in figure 1. Therefore, the variables under the study are classified into three broad groups namely brand drivers, brand dimension, and brand equity.

Brand Drivers

Kotler and Keller (2009) state that the product is a complex bundle of benefits to satisfy customers' needs. Product consists of brand name to differentiate from competitors' products and services. Supporting importance of brand name of the institutions, Souter and Turner, (2002) found that students' choice decisions are affected by name of the institution. Similarly design of the degree, curriculum and program duration is core product intended to provide functional benefits of the degree. In service marketing, the marketers seek to compensate for the intangibility dimension by providing physical clues. Therefore physical evidence such as building, library facilities, class room facilities reinforce the service attributes. In addition to core functional attributes, university may add features to give comfort and convenience such as social life programs, canteen services, sports services as expected products. On the top of these the university may add the other tangible or intangible features in

order to give impression such as the best course, the best faculty etc. as added value to differentiate it from competitors which is called augmented product. The augmented products, in fact, create brand equity. Supporting this product concept applicable to service the followings are the main variables found to be associated with students' response to higher education institutions.

Program Attributes

Several research indicated the contributions of program attributes to students' responses. For example O'Mohay, Mcwilliams and Whitelaw (2001) found out the students response in relation to the university as a cluster of attributes comprising of teachers, staff, facilities and services. Similarly, Gatfield, Braker and Graham (1999) also found that recognition (reputation), academic instruction (quality of teachers and resources), and campus life (added features) are important factors for inducing students enrollment. Good teaching reputation is the important variables (Price, Matzdorf, Smith, & Agahi, 2003). Binsardi and Ekwulugo (2003) found educational standard/ recognized qualifications world wide was the most highly ranked variable.

A significant contribution on students' choice was also made by perceived career prospects and associated status that will be gained after graduation (Lin, 1997). Recognition of the institutions and programs by future employers after graduation also affect the student choice decision (Mazzarol & Hosie, 1996). Cubillo, Sanchez and Cervino (2006) found that future earnings also played an important role in a prospective student's personal reasons for selecting a particular institution.

Ivy (2008) also found that program element which was made up of appropriately designed curriculum by adapting to the needs of the students and appropriate programs duration was the most important element of the marketing mix.

The items that made up the program element were found to be most important by numerous researchers (Binsardi & Ekwulugo, 2003; Cubillo, Sanchez & Cervino, 2006; Ivy, 2001; Maringe & Foskett, 2002; Price et. al., 2003).

Students' responses are also affected by physical facilities such as availability of computers, quite areas for study (Price et. al., 2003), and library facilities (Qureshi, 1995). Therefore, physical facilities such as building, computer, library and surrounding areas are important variables.

The contributions of the above mentioned program attributes in students' response are based on the perception of the institutional excellence among the students which may be different from its actual quality (Kotler & Fox, 1995).

Promotion

Promotion encompasses all the tools that universities can use to provide the market with information on its offerings and attempts to stimulate their choice decisions: advertising, publicity, public relations and sales promotional efforts. Bourke (2000) found that most critical variables affecting student choice decision is information about institutions, programs, facilities and services. Accessible and convenient web pages, print media, news story, TV promotion, trade fair, open day program conveying detail program information and emotion message attract customer responses (Gray, Fam, & Llanes, 2003).

Promotion through social network (Binsardi & Ekwulung, 2003), and word of mouth (Ivy, 2001) create opinion and impression about institutional image which results in brand image. Importance of electronic media promotions, public relations and word of mouth are reported by several researchers for example Bindsardi and

Ekwulugo, (2003) and Ivy, (2001). The above mentioned program and message attributes contribute in the development brand equity dimensions.

Brand Dimensions

Brand Awareness

Brand awareness consists of two sub-dimensions: recall and recognition. Brand recall is students' ability to remember the name or logo of focal institution (brand) any time when they think about a given degree. Brand recognition is students' ability to confirm prior exposure to the institution when the name of the institution was told (Keller, 1993). Students' perceptions and attitudes towards an institution are driven by the level of brand awareness (Aaker, 1996). For the purpose of this study brand awareness was operationalized as the strengths of brand's presence in customers' mind in terms of brand recognition and recall (Pappu, Quester, & Cooksey, 2005).

Perceived Quality

Perceived quality is the students' subjective judgments about a product's functional attributes in terms of its excellence or superiority with respect to intended purpose relative to alternatives (Zeithaml, 1988) gained through experiences with the higher education. Therefore perceived quality in this study was not what managers or experts of higher education institutions thought to have delivered (Yoo & Donthu, 2001). The perceived quality was measured through students' evaluation of attributes and benefits such as reliability and consistency of quality of education offered by a focal institution compared to competitors (Kotler & Keller, 2009).

Brand association is related to symbolic representation of a degree of a focal institution such as perceived value in relation to costs and organizational associations (Aaker, 1996b). Therefore, brand association is symbolic representation which

contains the meaning of the focal higher education institution for students (Keller, 1993). For this study brand association refers to unique meaning that students have on a particular institution over competing institutions such as trust, pride, and valuable. Two types of brand associations were used in this research.

Perceived Value

Perceived value is what customers think that they acquire quality and satisfaction in the products in comparison to what they paid for it. It is an overall comparative assessment of the utilities of the brand against price and costs relative to other brands (Netemeyer et. al, 2004). Customers think of making good decision of buying the products if they think that they have acquired more than what they paid for it (Pappu, Quester & Cooksey, 2005).

Organization Association

Organization association is what customers think about the organization from which they have bought the products or services. Organizational association emerged when customers trust the organization, and feel pride of buying from a particular organization (Pappu, Quester & Cooksey, 2005)

Brand Equity

Brand equity emerges due to customers' knowledge about a brand which results to their preferences on it leading to their favorable response to the brand. For the purpose of this study brand equity was defined as the customers' preference and response to a focal HE institution and its offers of education programs over the competing higher education institutions for the same level of product (degree). When brand equity is high the students will demonstrate their attachment, commitments and preferences in terms of intentions to enroll, to complete study and to recommend others to study in a focal institution over competing institutions for a degree.

Variables for Cross Validation of Brand Equity

This study adapted conceptualization of brand resonance as ultimate outcome of brand dimensions to study brand equity. Therefore, brand equity measure was cross validated with several other measures such as brand attitude, intentions to enroll in case of applicants and acceptability of choice alternatives to measure intentions to complete the study. Student might have enrolled in a particular higher education institution out of necessity despite their preference to other institution because of lack of accessibility, affordability, and eligibility. In this case the students whether they have or they do not have chance to study in their preferred institution, they may become brand evangelists and ambassadors and help to communicate about their preferred brand of higher education institutions (Keller 2003).

Nomological Validity Assessment of Brand Equity Measures

This study will focus on linkages among the selected brand drivers (directed or undirected promotions and program attributes) – dimensions (brand awareness and associations) - brand equity in applicants, influencers and students. The validity of brand equity measures was assessed by examining the relationships or correlation of the constituting measures of brand equity with other measures of brand equity, their correlation with antecedents and outcomes of brand equity (Ailawadi, Lehmann & Neslin, 2003). This has been referred to as nomological validity as they are consistent with theoretically associated constructs.

CHAPTER III

RESEARCH METHODOLOGY

The primary focus of this study is to identify the factors that determine brand equity of higher education institutions. In order to carry out this study a scale for measuring the constructs should be developed. The scale refers to an instrument developed for the purpose of measuring a theoretical phenomenon that cannot be directly observed and assessed (De Vellis, 2003). The scale development process contains specific steps for ensuring the construction of a reliable and valid measure. A reliable and valid brand equity measuring instrument examines the aspects that students and associated stakeholders consider important for developing positive perceptions and preferences on a focal higher education institution against competing institutions for the same degree. This instrument should measure students', applicants' and their influencers' (parents, relatives and friends) perceptions and preferences which determine brand equity of a higher education institution.

Therefore, the research methodology was designed particularly for scale development in this study. This study adopted the research methodology of scale development as employed by different empirical research articles reviewed in literature review section. Scale development generally requires six steps namely item generation, questionnaire administration, initial item reduction, factor analysis, establishment of convergent and discriminant validity and replication (Hitkin, 1998). Item pool generation starts after defining the brand equity and associated constructs (Reise, Waller, & Comrey, 2000). The initial item pool was reviewed by experts (De Vellis, 2003) for content validity before determining a format of measurement for questionnaire administration. A preliminary factor analysis was carried out to reduce

the items. The scales generated by factor analysis were tested for internal consistency. Series of surveys and factor analyses were conducted for reliability and validity tests. The purpose of this chapter is to describe the methodological approach of the study. This chapter presents the processes and approaches used in item generation, pilot study, main studies, and reliability and validity tests of the scales.

Philosophical Assumptions

This study assumed that knowledge is hard, real and external to the individual; and knowledge can be acquired and transmitted in tangible form (Cohen, Manion & Morrison, 2000). This ontological assumption says that worlds' reality is absolute and the corresponding knowledge is universal which demands epistemological assumptions. This epistemology assumes that the knowledge can be acquired through scientific inquiry rather than personally experienced and subjectively interpreted. Consequently, this study is based on researcher's objective observation of customers' perceptions and attitudes. The methodological approach was characterized by scientific investigation on selected factors or variables prescribed by previously established theories on consumer behavior and brand management. These assumptions and approaches were suitable for this study because the basic unit of study on social reality was collective of different societies which included groups of students, applicants, their relatives and opinion leaders. The abstraction of reality was sought through mathematical models and quantitative analysis to find out causal linkages among the antecedents and outcome variables through empirical evidences gathered through questionnaire survey on large sample size. The research process aimed at establishing explanatory and predictive capability of different variables of brand equity of MBA academic programs of different business schools in Nepal. Uses of in-depth interviews and focused group discussions as qualitative procedure were

limited to generate respondents' views for definitions of brand sources which were used for generating the statements and items (Netemeyer et.al., 2004). The other statements were also derived from pre-validated scales available in brand literatures. These statements were later used for questionnaire surveys for quantitative data analysis. Therefore, this study is predominantly quantitative and subscribes to a positivist research.

Research Design

This study investigated the perceptions and preferences of students and relevant stakeholders on higher educational institutions focusing on education program attributes. This approach parallels to many of research in developing and fine tuning scale of measuring CBBE in customer products such as Netemeyer et. al. (2004), Yoo and Donthu (2001) etc. This research design involved mainly quantitative data analysis on the data generated through questionnaire surveys. The research resembled the characteristics of descriptive research design as it described the statement art of factors representing brand equity and its facets. Similarly, this study is also correlational and causal as it presented the correlations between different variables and causal relationship of brand drivers, brand dimensions and brand equity outcome.

Item Generation

Item generation is the first step in research for scale development. Creation of items is necessary to assess brand equity construct. Constructs of brand equity, its dimensions and drivers were defined based on literature review. In order to generate the items of measuring these constructs, open ended questions were prepared based on theoretical understanding of brand drivers (program and media attributes), brand dimensions and ultimate brand equity outcome. The questions were used in in-depth

interviews and focus group discussions on MBA students and applicants. This process of item generation is an inductive approach. This inductive approach of item generation is appropriate for producing easily identifiable dimensions to develop the conceptual basis of construct (Hitkin, 1998).

The interviews and focused group discussions generated detail responses. The responses were recorded and noted. They were transcribed systematically for content analysis. All the responses were coded and categorized as per the definitions of different constructs referring to definitions mentioned in literature review. This process helped in ensuring content validity of the items.

Deductive approach was also used to generate items for the constructs of brand dimensions, brand equity and media attributes because items generated through inductive process did not produce sufficient number of items. The items are considered to be sufficient in any psycho-metric scale if there are three to six items for measuring a construct. Theoretical foundation is main basis for generating the initial set of items under deductive approach (Hitkin, 1998).

As proposed by Hitkin (1998), the statements for the items were made simple and short as far as possible. Items avoided double barreled statements. The wordings of the statements were improved to make it easily understandable to the target respondents.

The listed items clustered under the headings of different brand related constructs were distributed to some MBA students and faculties of business schools for evaluation of the items. Besides simplicity and clarity of the statements under the items, they also gave opinions whether the groups of statements correspond to intended themes or constructs. The items were finalized by incorporating their

suggestions. This is a process for ensuring and strengthening content or face validity of the scale (Frankfort-Nachmias & Nachmias, 1996).

Survey for Item Reduction and Factor Analysis

Four surveys were carried out one after another for phase wise factor analysis. The first survey was a pilot survey carried out in MBA students mainly for initial item reduction. The survey was repeated on MBA applicants to replicate the instrument for confirming initial item reduction and validation of the scale in this sample group. The third phase survey was replication of the reduced scale on parents, relatives and friends of MBA students. The fourth phase was survey on MBA students by replicating the scale. The data sets of all three sample groups were merged into one for final factor analysis.

Instruments and Measures

The item pool generated through inductive and deductive processes were included in a questionnaire in the first phase survey - pilot study. The items were scaled in likert type scale anchoring five: 1 for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, and 5 for strongly agree. Likert type scales are the most frequently used in questionnaires of survey research (Hitkin 1995).

The questionnaire also contains biographic data of the respondents. The respondents were requested to read the statements carefully and honestly to give their opinion. They were told that there are no right and wrong answers. Particular attentions were given to reduce number of items in an instrument in order to minimize response biases caused by boredom or fatigue due to long questions (Hitkin, 1998). Therefore, the scales measuring perceived quality and brand image were not included in questionnaire for pilot study to prevent questionnaire from being too long. They were added in the questionnaires used in subsequent surveys. In addition, established

scales for measuring brand attitudes, purchase intentions and acceptability of choice alternatives were also added in the later phases of the surveys to test the validity of the instruments. Scale of brand attitudes was five point semantic differential scales. Purchase intentions scale was used in applicants' survey; and acceptability of choice alternative was used in students' survey. Both of the measures were five point likert scales.

Participants

This study developed a scale for measuring customer based brand equity (CBBE) of higher education focusing on MBA academic program. This study assumed students as primary customers of higher education at master level, because they are the ones who pay for the education and they have higher degree of decision making power on school choice. The customers comprised of students and applicants of the business schools. Their decisions to apply and study in a school are also influenced by their parents, relatives and friends. Therefore, these three groups were included as participants for the study.

The following four business schools as mentioned in table 2 were in operation at the time of the survey. These schools have students from first semester through fourth semesters. Three new business schools had just started MBA program at the time of survey, but they did not have students beyond first semester. They were not included in the survey.

MBA students of the four schools were the participants in pilot study and students' main survey. They were contacted in their schools to administer the survey questionnaires.

Study two was on MBA applicants who had submitted applications forms for admission tests in any of the listed business schools. They were asked to evaluate

their most familiar business school against the competing business schools. They were contacted in KUSOM premises. They were allowed to fill in the questionnaires only when they admitted that they were applying in different business schools for MBA to ensure that they can compare the different alternative business schools.

Table 2

Total Students in Selected Business School for Sample Selection

Institute	Programs	Number of Students	Affiliated Universities
1. Ace	EMBA/ MBA	230	Pokhara University
2. Apex	MBA	219	Pokhara Universty
3. Himalayan White house	EMBA / MBA	142	Purbanchal University
4. KUSOM	EMBA / MBA	208	Kathmandu University
	Total	799	

Similarly survey three was on parents, relatives and friends of MBA students who had influenced the applicants while making the choice of business schools. MBA students were given questionnaires to find respondents and get them filled in by those who had advised them while applying for MBA admission tests.

The definition of the participants conform the population parameter which requires the content, extent and time (Frankfort - Nachmias & Nachmias, 1996). All of the participants were capable to compare a focal business school against the competing business schools at the time of survey.

Sample and Sampling

Almost all the sampling was carried out based on purposive sampling method. Only the interested respondents filled in the questionnaires. The samples were distributed equally to all the schools for the pilot study on students. Surveys on MBA students were carried out using purposive sampling method too. The students who were approachable and interested to cooperate by filling in the forms were contacted for the questionnaire administration in their schools.

Therefore, non probability sampling was used as social scientists usually do (Frankfort - Nachmias & Nachmias, 1996), because lists of applicants across all the business schools were not available and even if acquired it demanded additional research efforts to locate them. Names of parents, relatives and friends of the students could not be listed because the students would have been recommended by more than one relative and friend.

Although attempts were made to apply random sampling on stratified sampling frame of lists of MBA students of different semesters collected from four business schools, they had to be discarded. Most of the sampled students were not accessible at schools because some batches of students were not available in the schools because they were either preparing for exam at home or in internship projects. Therefore, final survey on students was quota based sampling selecting the number of students from all the listed business school in equal proportion but the respondents were selected from convenience sampling in their school premises.

Sample size was also guided by requirement for exploratory factor analysis and structural equation model. Although minimum absolute sample size for factor analysis is five times as many observations as the number of variables (items) analyzed, pilot survey was based on 94 sample size. Thirty questionnaires were

distributed to four different schools each in total 120 questionnaires for the pilot survey. Return rate was 78.3% only.

Similarly applications' survey had sample size of 226 out of 350 questionnaires distributed which accounted to 64.6% return rate. Third survey on students' parents, relatives and friends comprised of 221 samples out of 260 targeted having 85% return rate. MBA students' survey had 223 samples out of 320 distributed (69.7% return rate). Altogether 670 sample respondents' data was used in combined data analysis representing almost equal proportions of 33.3% of the three strata. The combined sample size 670 is more than sufficient for any population size up to 1,000,000 for sampling error of 5% with a confidence level of 95% (Cohen, Manion & Morrison, 2000, p 95). The sample sizes across different sample groups were adequate to run the exploratory factor analysis and structural equation model in this research.

Data Collection Procedure

Initial data collection was for item generation through open ended questions for in-depth interview and focused group discussions. Students studying different business schools were personally contacted for in-depth interview. Their detailed responses on different questions regarding their evaluation of their schools in comparison to others schools were noted in a note book for further processing of the data. Similarly, 12 MBA applicants were invited to attend a focus group discussion. Another focus group discussion was participated by 12 MBA students. They were asked different questions regarding their preference of one school over others and their reasons for differential preferences. Their responses were video recorded for transcribing.

Similarly, for the pilot survey six enumerators were hired for distribution and collection of the questionnaire. The enumerators were MBA students of KUSOM who were ready to distribute questionnaires to their colleagues studying in the four selected business schools. Similarly, two enumerators were hired to distribute and collect questionnaires in KUSOM premises for the study on MBA applicants. Only those applicants were contacted for this survey who admitted that they were applying in different business schools for MBA. The survey on influencers (parents, relatives and friends of MBA students) was carried out with the help of 12 MBA students of KUSOM. They went to four business schools to contact MBA students who agreed to make the questionnaire filled in by the person who advised them during applications for the study. Similarly, 12 MBA students of KUSOM carried out survey on MBA students who visited the selected business schools for the survey. They distributed questionnaires to the students by ensuring representation of all on going semesters and collected questionnaire from them. Finally opinion leaders' survey was carried out with the help of faculty members of Kathmandu University and Pokhara University. The faculty members themselves filled in the questionnaires and they also distributed to and collected questionnaires from other faculty members, policy makers and administrators of different business schools. All the enumerators were given a brief orientation about the objective of the study and need of selecting the respondents who were familiar with the selected business schools and willing to fill in the self administrable questionnaire.

Data Analysis and Presentation

Different types of data analysis methods were used in this study. The results of the data analysis were presented systematically for different phases of the study in

the next chapter. The followings section presented data analysis procedures used in different phases of the study.

Exploratory Factor Analysis (EFA)

Factor analysis was used separately in the data generated in the surveys on students for pilot study, applicants, students' parents, relatives and friends, and the students. Factor analysis is an interdependent technique whose primary purpose is to define the underlying structure among the observable (manifested) variables (items) in the analysis (Hair, Tatham, Anderson, & Balck, 1998). A basic assumption of factor analysis is that some underlying structures exist in the set of the selected variables. This technique groups highly correlated variables together. The groups of variables are labeled or named as factors which are latent variables to represent each of the observed variables. The groups of observed variables are highly inter-correlated and they represent dimensions within the data. Therefore, main purpose of exploratory factor analysis in this study was to identify the unobservable (latent) variables on brand equity, brand dimensions and brand drivers, and the structure among a set of the variables.

Factor analyses were carried out five times on different sets of data collected from different sample groups as follows.

a. Pilot survey on students;

b. Survey on MBA applicants;

c. Survey on influencers;

d. Survey on students; and

e. Combined data set.

This process of carrying out different factor analyses is supported by Hair et. al., (1998). They stated that when differing groups are expected in sample, separate

factor analyses should be performed and the results should be compared to identify differences not reflected in the results of the combined sample.

There are two types of factor analysis; component analysis and common analysis. Component analysis summarizes most of the original information (variance) in a minimum number of factors for prediction purposes. Therefore, component analysis is used for data reduction purposes. The principal component analysis is the most commonly used factor analysis (Costelo & Osborn, 2005). In contrast, common factor analysis is used primarily to identify underlying factors or dimensions that reflect what the variables share in common. Common factor analysis is also called exploratory factor analysis (EFA) (Costelo & Osborn, 2005). Common factor analysis is the most appropriate for this study as its primary objective is to identify the latent dimensions or constructs in well specified theoretical applications. Some degree of multicollinearity is desirable in common factor analysis because the objective in this case is to identify interrelated sets of variables (Hair et. al., 1998). Nevertheless, in the most application both the component analysis and common factor analysis arrive at essentially identical results if the number of variables exceeds 30 or the communalities exceed .60 for most variables.

The data were analyzed through EFA following the literature (Reise, Waller, & Comrey, 2000, Costello & Osborn, 2005, Hair et. al., 1998) after checking the basic assumptions such as normality of the data, communalities of items, factor loadings etc.

Assumptions in Factor Analysis

Prime objective of applying factor analysis in this study was to sacrifice statistical requirement for conceptual requirements (Hair et.al., 1998). The first important consideration for EFA is sample size which was 94 in pilot study and about

225 in other studies. Except in pilot study the sample size met minimum absolute sample size of 200 to 250 observations (Hitkin, 1998). Other statistical assumptions were sacrificed slightly in favor of conceptual requirements in some cases.

Normality of the data in the variables (items) is required for factorability of the variables. The threshold for normality test is +/- 1.000 for skewness and +/- 2.000 for kurtosis. The variables which did not meet normality criteria were deleted from the factor analysis. After normality check several rounds of factor analyses were carried out until the following conditions were met.

Running Exploratory Factor Analysis

Several criteria were used in determining the number of factors to extract in the data set. For factor extraction, maximum likelihood extraction method was used as it gives the best result in the data set which is generally normally distributed (Costello & Osborne, 2005). After screening the data matrix from basic assumptions and communalities, the latent root was used as guidelines to determine the number of factor to be extracted. Eigen value greater than 1.0 was used as main guiding principle to determine number of factors to be extracted. Sometimes a predetermined number of factors based on research objectives and prior research were also sought with the help of scree plot in order to produce satisfactory results. In this case factors with eigen value slightly less than 1 were also retained in the later phases of the study.

The factor rotation improves the interpretation by reducing ambiguities that often accompanies initial un-rotated factor solutions. Therefore, rotated factor solution was used in this research. Similarly oblique factor rotation was used as it is considered to be more realistic in common factor analysis. Oblique factor rotation assumes that the theoretically important underlying dimensions are assumed to be correlated with each other (Hair et. al., 1998). This assumption contradicts with

orthogonal rotation method in which independence between the rotated factors was sought. Therefore, oblique solution provides information about the extent to which the factors are actually correlated with each other. Pattern factor matrix was examined for factors and item loading for the analysis. In this case the factor correlation matrix generated in exploratory factor analysis reveals correlation between the factors (Costelo & Osborn, 2005). As suggested in Costelo and Osborn (2005), direct oblimin with the dafult delta (0) was used as it gives identical results along with other alternatives available in statistical package SPSS 16 which were used for this research. The factor score coefficient matrix was displayed and the factors were sorted by size. As stated above the EFA was carried out in iterative process starting from evaluation of initial results. The EFA was repeated several times for refinement in the factor results meeting most of the criteria.

Criteria for Finalizing Factor Solution

The first criterion was sufficient correlations in the data matrix to justify the application of factor analysis. This was checked in factor analysis results. Anti-image correlation matrix indicates negative value of the partial correlation. The larger anti-image correlations above .70 are indicatives of a data matrix not suited for factor analysis. In addition the bartlett's test of sphericity which is a statistical test for the presence of correlations among the variables were examined. The entire correlation matrix should be significant at the level of $p>.05$. A third measure to quantify the degree of inter-correlations among the variables and the appropriateness of factor analysis is the measure of sampling adequacy (MSA). The MSA of .80 or above is considered meritorious and .70 or above are middling .60 or above is mediocre and below .50 is unacceptable. Those variables which have less then .50 MSA were

deleted from factor analysis. Overall (Kaiser-Meyer-Olkin's) MSA was also considered.

A variable's communality is the estimate of its shared or common variance (correlation with other variables) with other variables in the analysis. The communalities should be higher than .60, and but higher than .50 is also acceptable. All the variables having .50 or more are loaded in at least one factor (Reise, Waller & Comrey, 2000). The communalities having value greater than 1 or less than 0 may not be estimable as a result factor results may be invalid. The problems in the communalities were mitigated by deleting problematic variables and subsequently running several rounds of factor analysis. The factors should meet the specified percentage of variance explained usually 60% or higher.

Determining Factors and Assessing Overall Fit

Factor pattern matrix was used to evaluate the loadings that represent the unique contribution of each variable to the factor. Factor pattern matrix is rotated factor matrix in oblique rotation. Factor pattern matrix is used widely in theoretical research. Second in oblique rotation is the factor structure matrix which shows simple correlations between variables and factors.

Pattern matrixes of factor analysis were used to assess factor loadings and determine the number of factors. The factor loading must exceeds .70 for the factor to account for 50% of the variance of a variable (Hair et. al., 1998). Loading exceeding +/- .70 are considered indicative of well defined structure and are the goal of any factor analysis. However +/-.50 or greater are considered practically significant. In addition, higher factor loadings limits varied from >.40 to >.60 as per sample size (Hair et. al., 1998). In larger sample size, the factor loading can be >.40. Variables

with less than .60 loadings in most of the cases and with cross loadings were eliminated from the analysis.

Reliability Tests

UnidimensionalityTest

Unidimensionality is the evidence that a single dimension or construct underlies a set of measure (Hair et. al., 1988). Unidimensionality is demonstrated when the observed variables of a dimension have acceptable fit on a single factor. Items loading highly >.40 in larger sample size without cross loading is indicators of unidimensionality. Therefore factor solution indicated the test of unidimensionality. The unimensionality is also indicated by summated scales consisted of items loading highly on a single factor but not on other factors.

Reliability – Internal Consistency Test

Reliability is an assessment of the degree of consistency between multiple measurements of a variable. One form of reliability is measurement of internal consistency among the variables in a summated scale. In other words it is consistency among the items loaded in a single factor.

Summated scales were calculated by combining several of individual variables loaded into a single factor (composite measure) and averaging the scores of the variables. Summated scale provides a means of overcoming the measurement error inherent in all measured variables. This scale also represents the multiple aspects of a concept in a single measure (Hair et. al., 1998). The summated scales were guided by the conceptual definitions specifying the type and character of the items that are candidates for inclusion in the scale. The summated scale also confirms the content validity by verifying the correspondence of the variables included in a summated

scale with the experts' judgments of correspondence between the individual items and the concept.

There are series of diagnostic measure to assess internal consistency such as item to total correlation, inter-item correlation and Cronbach's alpha. The items to total correlations must exceed .50 and the inter-item correlations must exceed .30. The second type of diagnostic measure is the reliability of coefficient with Cronbach's alpha. The alpha should be >.70. Sometimes, > .60 is accepted as minimum tolerance.

Following the above mentioned principles, reliability tests were carried out on all loaded items after extracting factor results in all five phases of analysis separately. This was followed by calculation of summated scales by averaging the scores of variables.

Test Retest Test

This research administered the measuring instrument to the same group of person at two different times and computed the correlation between the two sets of observation to obtain reliability coefficient. One need to make sure that respondents do not remember specific question and changes in circumstances do not influence the responses (Frankfort-Nachmias & Nachmias, 1996). Forty students were asked to write their names in the questionnaire. They were again interviewed with same scale after two months. Correlation matrix was prepared to study the correlation of two data sets to estimate stability and validity of the scale. The results of the test retest were also verified through pair sample t tests.

Validity Tests

Content Validity

Validity of the scale was assessed to identify the extent to which a scale measure accurately represents the concept of interest (Hair et.al., 1998). The content validity was tested during the initial item pool generation by verifying the items with theoretical definition and constructs. The items pools were evaluated again by experts to verify the correspondence of the statements to the intended theoretical constructs during instrumentations. The content validity was once again tested during unidimensionality tests though internal reliability testing. The content validity was also verified by opinion leaders' survey during which the faculty and education administrators participated.

Construct Validity

Construct validity exist when an instrument is tied to the concepts and theoretical assumptions they are employing (Hair et. al., 1998). In order to obtain evidence of the construct validity of an instrument, a researcher must make use of both convergent principles and discriminate principles. Convergent principle states that two measures of the same property should correlate highly with each other even though they represent different methods. In other words different instruments of measuring the same property should yield similar results.

Similarly discriminant principle states that two measures of different properties should not correlate highly with each other even though a similar instrument is used. In other words different properties should yield different measurement results regardless of the measuring instrument.

Construct validations involve use of correlation matrix. Convergent validity can be determined by the correlations among summated scales of construct. If the

constructs are highly correlated with others belonging to the same construct that purport to measure it, and low with the rest of them, then it can be concluded that the measure of constructs have convergent validity. Convergent validity measure the extent to which a scale measure accurately represents the concept of interest and these measures with the same concept are correlated (Hair et. al., 1998).

Discriminant validity assesses the extent to which a construct and its indicators or observable variables measures differ from another construct and its indicators (Hair et.al., 1998). One of the alternative rules of discriminant validity is to calculate the correlation between constructs. A correlation of less than +/-.70 is frequently accepted as evidence of discriminant validity. Therefore, if the constructs have less than .70 correlations among themselves, they have discriminant validity. It means that each scale of measuring construct is different from each other.

Correlation matrix of the summated scales of different factors were prepared for convergent and discriminant validity tests. The correlations were also calculated for verification with the scales of brand attitudes, and purchase intentions for this purpose. These measures examined the aspects of brand strengths or brand equity (Netemeyer et. al., 2004).

Similarly relatively low inter correlations between the subscales are considered supporting discriminant validity among the constructs. The correlations between subscales from zero to less than .70 are acceptable evidence for discriminant validity.

Nomological Validity

Nomological validity provides evidence of construct validity. The researchers need to develop a nomological network among the constructs. This process consists of incorporating the construct under study in a theoretical framework and explaining

how this construct is expected to behave among theoretically related constructs i.e. brand equity, brand dimensions and brand drivers (Netemeyer et.al., 2004). Therefore, nomological validity is achieved by preparing a series of hypothesis and testing them. As per the theoretical review presented in conceptual framework all the extracted factors for brand drivers should have positively contributed to the factors of the brand dimensions and all the factors in brand dimension should have positively contributed in brand equity outcome.

The above mentioned dependence relationships and corresponding hypotheses were examined employing structural equation modeling (SEM). SEM is a multivariate technique which tests theories that contain multiple equations involving dependence relationship. SEM enables the researchers to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs as well as between several latent constructs. SEM explains the structure of interrelationships among multiple constructs belonging to dependent and independent variables when dependent variables in one relationship become independent variables in the subsequent relationship (Hair et. al., 1998). SEM defined the links among the construct or latent variables and also specified which latent variables directly or indirectly influences or causes change in the values of other latent variables in the model.

In SEM independent variables are called exogenous or upstream variable and dependent or mediating variables are called endogenous or down stream variables. Manifest or observed variables are directly measured by researchers. They are the items of the scales. Latent or unobserved variables are not directly measured but are inferred by the relationships or correlations among measured variables as depicted in factor analysis.

In this research exploratory factor analysis was carried out based on correlations between observed variables measured through statements or items clubbed together to explain the latent variables in summated scales. Since nomological validity were tested using SEM in this research, SEM represents relationships among unobserved variables only. Path diagram was used for the nomological validity testing. Oval or circles represent latent variables, while rectangles or square represent measured variables. Residuals are always unobserved, so they are represented by ovals or circles. Oval or circles in this research are unobserved or latent variables. They were used as dependent and independent variables (Utexas, 2009).

A complete SEM model consists of measurement and structural model. The measurement model specifies the rules of correspondence between measured and latent variables (constructs). This study substituted measurement model through exploratory factor analysis. Since SEM was used only for testing nomological validity of the latent variables or constructs, the structural model was tested in this study.

The structural model is a set of one or more dependence relationship linking the hypothesized or theoretical model's construct. Once a series of relationships is specified, the relationships are portrayed visually through path diagram where straight arrows depict the impact of one construct on another and curved arrows for bivariate correlations among dependent latent variables. Path analysis estimates the relationship in a system of structural equation (Hair et. al., 1998). In this study SEM was used for explaining the causal effects between the latent variables only but not between items with latent variables. Therefore SEM was used for path analysis for

specifying the structural model of the latent constructs only for nomological validity tests.

The SEM analysis followed specification of a model developed based on theory as indicated in shaded part of conceptual framework in the literature review section (figure no. 1). The SEM soft ware package AMOS 18 was used for this analysis. Maximum likelihood method was used to examine each construct and its standardized loadings among the constructs. The input to the analysis is usually a covariance matrix of measured variables such as survey item scores. However, in practice as in this research, raw data were supplied to SEM program.

SEM features a number of assumptions like any statistical methods which should be met or at least approximated to ensure trustworthy results. A good rule of thumb is 15 cases per predictor in SEM. Another assumption is that endogenous variables must be continuously and normally distributed, and at least measured through likert scale. Both of these conditions were met throughout this study.

The SME model fit determines the degree to which the structural equation model fits the sample data. Model fit criteria commonly used are Chi-square (X2), but Chi-square is easily influenced by the size of the sample. In order to overcome this problem several other fit criteria were proposed for SME model. They are Goodness of Fit (GFI), Adjusted Goodness of Fit (AGFI), Norm Fit Index (NFI), Comparative Fit Index (CFI), Root Mean Square Residual (RMR), and Root Mean Square Error of Approximation (RMSEA). These criteria are based on differences between the observed and model-implied correlation or covariance matrix. Cut off point for GFI, NFI, are generally above .90 and RMR values should range from .0 - .05. AGFI values above .80 are generally interpreted as representing a good fit, whereas a value of RMSEA below .10 indicates a good fit. Standard loading and the

squared multiple correlations between constructs should be used for measurement model testing. The analysis of the squared multiple correlations should meet the recommended criteria of 0.40. All the constructs should be loaded highly on their corresponding construct ($p>0.05$ in all cases) and the t-values (critical ratios (C.R.) of those items should be greater than 2.0 (e.g. Netemeyer et. al., 2004, Yoo & Donthu, 2001 etc.).

Generalizability

One of the most direct methods of validating the results of factor analysis is to assess the replicability of the results with a separate sample, but the two or more factor model results have always been problematic (Hair et. al., 1998). In this research results of factor analyses were used in refining the instruments for subsequent replication in other phase of research in different sample groups.

Having two strong brands and one weaker brand within commonly used product categories could enhance the generalizability of the measures. In this case the combined data set contains three different sample groups which are supposed to be influenced by different brand drivers. The findings generated through these analyses would reflect the generalizability of the measures in this product category among the business schools in Nepal.

Ethical Considerations

Each stage of the research process may violate the rights and welfare of research participants in the scientific investigations on human beings starting from defining the research problems, research design, collection and analysis of the data, and dissemination of the research findings (Frankfort-Nachmias & Nachmias, 1996). Therefore, the main ethical considerations of this study were preventing rights and welfare of research participants during data collection and data analysis and also

preventing disclosure of brand equity of individual institutions represented in this study. The survey questionnaires were used to examine respondents' attitudes toward MBA programs of business schools in Nepal. All the respondents were adults. They were requested to fill in a survey only if they agreed to do so. It took them approximately ten minutes to complete the questionnaire. The same ethical considerations were applied during in-depth interviews and focused group discussions in which the respondents spend approximately 30 minutes. They were told about the objectives of the study and instructions for participation. They were allowed to ask questions if any, about the survey and study at any time. Full confidentiality of their participation was maintained. The survey did not ask to disclose their name or identity in any way. Data provided by the participation were not reported individually nor attributed personally. Their participation in this survey was completely voluntary. They were allowed to withdraw from the study without penalty at any time. There were no psychological or sociological risks involved in participating in this study. The results of this study provide common benefits to the students, applicants and their relatives, and planners and policy makers of higher education institutions in Nepal.

CHAPTER IV

ANALYSIS AND RESULTS

This section presented the data analysis of seven phases of the study namely; initial item generation, the findings of survey on applicants, influencers, students, combined data and reliability and validity tests, and opinion leaders' survey. Detail steps followed for instrumentations, sampling, data processing, data analysis, tests of reliability and validity were also presented for each phase. The following parts of this report presented different processes were presented used for the respective methodologies and their findings.

Initial Item Generation

This section of the study explains about the process used in the item generation and its initial reduction. In addition, this section also presents the preliminary items that were purified in the subsequent phases of analyses. The items are necessary for developing a scale for measuring a theoretical phenomenon that cannot be directly observed and assessed. Item generation process is a first step in development of scale. Primarily two approaches were used in the process of initial item generation.

Inductive Approach

Creation of items is necessary to assess the brand and brand equity construct. Constructs of brand equity, its antecedent or dimensions, and drivers were defined in the last section of literature review. A list of open ended questions was prepared by reviewing theoretical definitions of brand drivers, brand dimensions and brand equity outcome. These questions were used during in-depth interviews with 54 students

studying MBA. Two focus group discussions were held for 12 applicants of MBA students and 12 MBA students using the same questions.

This is an inductive approach of item generation. This inductive approach was appropriate for developing the conceptual basis for construct to produce easily identifiable dimensions in order to generate items (Hitkin, 1998). During the interviews and focus group discussions the students studying in different institutions (colleges and schools) were asked to provide descriptions of their feelings about their colleges and institutions. This method is consistent with Netemeyer et. al's. (2004) study on developing and validating measures of facets of customer based brand equity, which also used two focus group discussions to generate items for the scale development. A check list of questions contained the following broad questions such as "Do you think that studying in one business school over other schools for the MBA degree has meaningful differences? What are the differences? What are the reasons for liking one school over others? What special features do you think that your preferred school has over others? What is the impression about your school before joining it? How did you come to know all about this institution before joining this school? If you are given a chance, do you still want to change your school to the one which you prefer the most?

The detail responses were recorded and noted. The responses were transcribed systematically for content analysis. All the responses were coded and categorized as per the definitions of different constructs developed from the literature review. Analysis of the results of the in-depth interviews indicated the relevance of MBA for brand equity research because the students of these programs have perceptual differences on different institutions offering the programs. They clearly expressed their differential perceptions, evaluation and preferences among different institutions.

Therefore, this study included MBA programs as stimuli for the research. The MBA category also includes EMBA and evening MBA.

This categorization process produced seven categories that MBA students used to express about their perceptions and preferences on one institution over other competing institutions. They were reputation (3 items), quality of curriculum (4 items), quality of faculty (3 items), quality of infrastructure (6 items), learning environment (3 items), employability of graduates (4 items) and characteristics of students (4 items). These items and categories were verified with the literature review and definitions of brand constructs used in this study. The items and categories were consistent with theoretical definitions and findings of earlier research as mentioned in the literature reviews.

Table 3

Items Generated through Inductive Approach

1. Reputation
    1. B-school X is affiliated / constituent to a reputed university.
    2. B-school X is renowned for quality education.
    3. B-school X is one of the best schools / campuses /colleges.
2. Curriculum
    4. B-school X provides a meaningful internship.
    5. B-school X provides practically oriented knowledge.
    6. B-school X provides practical assignments.
    7. B-school X provides more case studies.
3. Faculty
    8. B-school X has qualified faculty.
    9. B-school X has professional faculty.
    10. B-school X has competent faculty.
4. Infrastructures
    11. B-school X has a good building.
    12. B-school X has a well equipped library.
    13. B-school X has good computer labs.
    14. B-school X has good classrooms.
    15. B-school X has a good open area.
    16. B-school X has a good canteen.
5. Learning environment
    17. MBA of B-school X does not have political interference in students' affairs.
    18. B-school X has good relationship between MBA students and their teachers.

19. B-school X gives good personal attention to MBA students.

6. Employability
   20. MBA of B-school X creates opportunities for a highly paid job after MBA.
   21. MBA of B-school X has a good placement of graduates.
   22. B-school X's MBA graduates have earned a good money.
   23. B-school X's MBA graduates achieved higher positions.
7. Students' characteristics and traits
   24. B-school X's MBA students are competent.
   25. B-school X's MBA students are co-operative.
   26. B-school X's MBA students are confident.
   27. B-school X's MBA students are down to earth.

However, these categorized themes were related to program attributes only, but they did not contain brand dimensions, brand equity outcome and media attributes. The students expressed their views about the institutions in which they have been studying and the institutions they preferred the most. All their expressions were dominated by their perception on program attributes as mentioned above but they expressed insufficient number of statements for developing items for any theme under brand equity outcome and brand dimensions and media attributes. The followings were some of such statements: "The best college for MBA", "MBA of this institution has high brand value", "MBA of this institution provides quality education", "This institution is superior", "I received information about this institution and program from my friends", "I knew this program from internet" "We can get quality education at lower price in this institution" etc. Though these statements contain the items to measure brand dimensions, they were not sufficient to develop items because there should be at least three to maximum six items to measure one latent variable (Hitkin, 1998). As a result, deductive approach was used to develop items for measuring brand dimensions, brand equity and media attributes.

Deductive Approach

The theoretical foundation provided enough information to generate the initial set of items for deductive scale development (Hitkin, 1998). The definitions of construct

under brand dimensions were used as a guide for the development of items. For example brand equity is defined as students' preferences and favorable response to focal institution over the competing institutions for the same degree which is reflected by their attachments and commitments to the brand. Therefore, the examples of the developed items were; "I would definitely recommend to others to make this business school their first choice when considering studying MBA program." "This business school is the best choice for me". Similarly items for brand awareness, advertisement and word of mouth were generated from different literature as indicated in the table 4.

Table 4

Items Generated through Deductive Approach

1.Brand awareness (Pappu et. al. 2005, Buil et.al 2008)
1. When I think of MBA, B-school X is one of the B-schools that come to mind.
2. I can quickly recall the symbol or logo of B-school X.
3. Some characteristics of B-school X come quickly to my mind.
4. I can recognize B-school X among other competing B-schools for MBA program.
5. I have clear image of the type of person who would study MBA in B-school X.
2. Brand equity (Yoo et.al. 2003, Buil et. al. 2008)
6. I would definitely recommend to others to make B school X their first choice when considering studying MBA program.
7. B-school X is the best choice for me.
8. I am willing to donate to the extent possible to B-school X.
9. I am always interested to learn more about B-school X.
10. Even if another B-school is not different from B-school X in any way, it seems smarter to study in B-school X.
3. Advertisement (Yoo et. al 2001)
11. MBA of B-school X is intensively advertised.
12. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of MBA of competing B-schools.
13. The ad campaign for MBA of B-school X is seen frequently.
4. Word of mouth (Babin et. al. 2005)
14. MBA of B-school X is well known to my friends and relatives.
15. My friends and relatives strongly advised me to study in MBA in B-school X.
16. My friends and relatives advocate more for MBA of this B-school than competing B-schools.

These items were generated referring to indicated sources and adding some items which are suitable, and items generated through inductive approach. For example

brand awareness refers to recall and recognition of the brand by customers when brand clue is provided. Advertisement is measured as degree of advertisement efforts made and seen by the customers (Yoo & Donthu, 2001). Word of mouth refers to the recommendations of one person for encouraging others to use the products and services (Babin, Lee, Kim, & Griffin, 2005). These items seem to have content validity as they conform to literature review and their definitions, and were replication of the scales available in literatures with some modification and addition in items especially in brand equity.

The items were written based on number of guidelines (Hitkin, 1998). The statements were made as simple and short as possible. The words were made familiar to the target respondents. All the items were consistent in measuring the intended program attributes. Items should address only a single issue freeing them from double barreled items. These issues were carefully applied to evaluate the items before their uses.

Content Validity of the Items

The listed items clustered under the headings of different brand related constructs as indicated in table no. 3. The lists were distributed to some MBA students and faculties of business schools for evaluation of the items. Their opinions on clarity and simplicity of sentences were collected. Their opinions whether the groups of statements correspond to intended themes or constructs were collected. The items were finalized by incorporating their suggestions. This is a process of ensuring and strengthening content or face validity of the scale.

Instruments and Measures for Pilot Study

The above mentioned 43 items were scaled in five point likert type scale anchoring: 1 for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4

for agree, and 5 for strongly agree. They were included in a questionnaire. The questionnaire also contained biographic data of the students. The respondent students were requested to read the statements carefully and honestly to give their opinion. They were told that there are no right and wrong answers. Particular attentions were given to reduce number of items in an instrument in order to minimize response biases caused by boredom or fatigue (Hitkin, 1998).

Sample Profile of Pilot Study

One hundred fifty questionnaires were distributed to the students of four business schools 30 questionnaires each for the survey. Ninety-four questionnaires were received for the data analysis. The survey was on the sample MBA students selected based on purposive sampling method in each school.

Sample students in this pilot study included 37% from KUSOM, about 21 % each from ACE, APEX and Whitehouse. Among them 64.9% were students of MBA and the rests were EMBA and evening MBA. 61.7% of the respondents were male. 53.2% of the students were between 21 to 25 years of age and another 29.8% were in between 26 to 30 years of age. 47.3% of the respondents said that their average monthly family income was Rs. 30000 to 60000 and 21.5% of them earned less than 30000 per month. About 50% of the respondents said that their close associates have studied in the same institutions in the past and most of them were their friends (32.3%).

Assumptions for Factor Analysis of Pilot Study

The first important consideration for EFA is sample size which was 94 in this case. Factor analyses were carried out using iterative process to trim down the items. Fifteen items were extracted out of initial 43 items. The number of variables used in the final factor results was 15. This number of variables met the assumptions that

there should be five times as many observation as the number of variables analyzed (94/15 = 6.2 times). The sample size also met minimum absolute sample size of 50 observations (Hitkin, 1998). Nevertheless, an initial factor analysis should not necessarily meet all the standards. A factor loading of .60 was considered in this factor result due to smaller sample size (Hair et. al., 1998).

Normality and linearity are required for factor analysis of the variables from statistical standpoint. The threshold for normality test is assumed to be +/- 1.000 for skewness and +/- 2.000 for kurtosis. Three variables among 43 were higher than normality. They were deleted from the factor analysis at initial stage. After running several rounds of factor analyses, the final solution met all fit criteria of factor analysis. The following table presents the normality of the scores of the items extracted and used in final factor analysis. All the manifested variables met the threshold of normality as indicated in the table 5.

Table 5

Normality Tests of the Items used for Final Factor Analysis of Pilot Study

Items	Mean	Skewness	Kurtosis
BE 1	4.0532	-.963	.963
BE 2	3.7021	-.762	-.199
BE 3	3.4894	-.455	-.612
FAC 1	3.6277	-.573	.141
FAC 2	3.6489	-.594	.130
FAC 3	3.5870	-.863	.319
INF 1	3.8043	-.886	.317
INF 2	3.5426	-.579	-.257
INF 3	3.4894	-.461	-.250
INF 4	3.8723	-.952	1.184
INF 5	3.3085	-.289	-.989
EMP 1	3.3298	-.349	.777
EMP 2	3.4149	-.608	.815
EMP 3	3.4787	-.690	1.632
EMP 4	3.4787	-.520	1.653

Note: BE=Brand equity, WOM=Word of mouth, AD=Advertisements, CUR=Curriculum, EMP=Employability, INF=Infrastructure, FAC=Faculty

Criteria of Exploratory Factor Analysis of Pilot Study

Several criteria were used in determining the number of factors to extract from raw data set. Maximum likelihood extraction method was used for normally distributed data set. The latent root was used as guideline for extraction of number of factors. The eigen values greater than 1.0 were used. Scree plot was tried to extract predetermined number of factors based on research objectives and prior research but it did not produced satisfactory results.

There should be sufficient correlations in the data matrix to justify the application of factor analysis. All the variables had anti-image correlations lower than .70 except two in the initial data set. The bartlett's test of sphericity which is a statistical test for the presence of correlations among the variables was significant (p=.000 approximate chi square = 843.09 df = 105). All MSAs in anti-image correlation matrix were above .70 except three which were again greater than .60 at the initial stage of factor analysis. Those variables which have less then .50 MSA were deleted from factor analysis. Overall (Kaiser-Meyer-Olkin's) MSA is .745. All these MSA indicated met the criteria that the data set was factorable through factor analysis.

A variable's communality is the estimate of its shared or common variance (correlation with other variables) with other variables in the analysis. In this EFA the communalities of five variables were higher than .50 and the rest have above .60 in the final factor solutions. When number of factors extracted is few, number of variables per factor is small, communalities are high (>.60), and the factors are well defined having many large loadings, sample sizes of 100 are often adequate (Reise, Waller, & Comrey, 2000). Therefore, this factor results met all the assumptions. In this EFA four factors were extracted with cumulative variance explained was 76.1%.

Factor Analysis of Pilot Study

Meeting the above mentioned criteria for running factor analysis, the final factor result was produced. The entire underlined factor loading exceeded .60 in four different factors as intended during item categorization. Factor pattern matrix was used to evaluate the loadings in oblique rotation. There was no cross loadings in the matrix as indicated in the table 6.

Table 6

Factor Result of Pilot Study

Items	BE	EMP	INF	FAC
BE 1	.971	-.043	.024	.058
BE 2	.912	.042	-.014	.009
BE 3	.796	.022	-.061	.019
EMP 1	.018	.844	.062	-.133
EMP 2	-.040	.834	.019	.161
EMP 3	.176	.746	-.066	.025
EMP 4	-.088	.713	-.070	.129
INF 1	.092	-.025	-.842	.051
INF 2	.080	-.039	-.839	-.015
INF 3	.087	.004	-.747	-.052
INF 4	-.163	-.064	-.697	.174
INF 5	-.026	.238	-.672	-.195
FAC 1	-.133	.047	.010	.809
FAC 2	.175	.125	.089	.722
FAC 3	.095	-.011	-.091	.680

Note: BE=Brand equity, EMP=Employability, INF=Infrastructure, FAC=Faculty

EFA result produced four factors namely qualified faculty (three items), physical infrastructure (five items), and employability after graduation (four items) and brand equity (three items). Word of mouth, advertisement and brand awareness could not be extracted despite several attempts.

Table 7

Statements / Items loaded in Factor Results of Pilot Study

Faculty
1. B-school X has qualified faculty.
2. B-school X has motivated professional faculty.
3. B-school X has competent faculty.
Employability
4. B-school X creates a possibility of highly paid job after MBA.
5. B-school X has a good placement of graduates.
6. B-school X's graduates have earned good money.
7. B-school X's graduates achieved high position in their job.
Infrastructure
8. B-school X has good building.
9. B-school X has well equipped library.
10. B-school X has good computer labs.
11. B-school X has good class rooms.
12. B-school X has good open area.
Brand equity
13. I can recognize B-school X amongst other competing B-schools for MBA program.
14. MBA of B-school is the best choice for me.
15. Even if another B-school is not different from B school X in any way, it seems smarter to study in B-school X.

This table 7 indicated that when the students compare a focal business school over its competitors, they consider three main factors which determine their strong preference of one school over other competing schools. This is slightly consistent with the theoretical model of brand development. However, advertisement, word of mouth and brand awareness were not loaded in the factor analysis. They were not considered important by 94 sample students included in this pilot study. Similarly items categorized under other four factors – reputation, curriculum, learning environment and students' characteristics were not loaded in this factor analysis.

Reliability Measurement in Pilot Study

Summated scales were calculated by combining the items loaded into a single factor by averaging the score of the variables. The summated scale tests a form of reliability in terms of internal consistency among the variables in a scale. This internal consistency analysis also supports unidimensionality of the variables loaded highly in single factors as well as content validity as the items belongs to a single factor not others and they have internal consistency.

A series of diagnostic measures were carried out in the loaded factors. The items to total correlations, the inter-item correlations, and Cronbach's alpha were calculated through SPSS software. The table 8 indicated the reliability measures of the factors loaded in the factor result.

Table 8

Reliability Test Results on Pilot Study

Factors	Number of Items	Cronbach's Alpha
Brand equity	3	.770
Employability	4	.869
Infrastructure	5	.881
Faculty	3	.924

All these items met the criteria of reliability. The constructs with the items loaded in the respective factors as indicated in initial content validity having accepted level of reliability supports the content validity of the constructs being extracted.

In summary, the first phase of study on item generation indicated the existence of brand equity structure comprising of three brand drivers namely; quality of faculty,

graduate employability and quality of infrastructure, and brand equity outcomes with corresponding items with good reliability. However, the number of factors extracted in this pilot study was not sufficient. Therefore, next phase of the survey and corresponding factor analysis investigated whether additional items would be loaded and additional factors be extracted.

Brand Equity of the Applicants

Second phase of the survey was carried out on MBA applicants. The applicants are important for marketing of higher education because they are the pools of people required for enrollment and selection of the qualified students who play critical role in increasing the brand value of a particular higher education institution. Most of the research literatures on marketing of higher education were on criteria for school choice and attracting applicants. This section presents the process used in the survey. The objective of this survey on applicants is two folds; purifying the items generated in pilot study and generating the constructs and structure of brand equity among the applicants.

Instruments and Measures for Applicants' Study

Forty three items were replicated in this survey. It was necessary to confirm the item reduction in this group because the applicants were different sample group who had less experiences and exposures to a focal higher education institution than the students who had already enrolled and had been studying. As a result they might have different level of perceptions and preferences than already enrolled and currently studying students.

The questionnaire used for applicants' survey was more comprehensive than the questionnaire used in pilot study. Ten items on brand dimensions: perceived quality (4 items), perceived value (3 items) and organizational association (3 items)

were added in the instrument. The items for measuring word of mouth from relatives (3 items) were added to understand their influence on applicants' decision to apply on a particular institution. It is believed that parents and relatives play a greater role in the preference of one institution over others. In addition, purchase intention is considered to be outcome of having strong brand equity. Therefore, a scale of purchase intention was added in the instrument for testing construct validity. All the statements were scaled in five point likert scale anchoring 1 for strongly disagree to 5 for strongly agree. The items included and scales were presented in Table 9.

Table 9

Added Scale in Applicants' Survey

Perceived Quality (Pappu, Quester & Cooksey, 2005)
1. B-school X offers very good quality MBA program.
2. B-school X offers MBA of consistent quality.
3. B-school X offers very reliable MBA.
4. B-school offers MBA with excellent features.
Perceived Value (Pappu, Quester & Cooksey, 2005)
5. MBA from B-school X is good value for money.
6. I consider admitting into B-school X for MBA is a good decision.
7. Considering what I would pay for MBA of B-school X, I would get much more than my money's worth.
Organizational association (Pappu, Quester & Cooksey, 2005)
8. I trust MBA from B-school X.
9. The MBA from B-school X has credibility.
10. Getting admission in MBA of B-school X is my pride.
Word of Mouth from relatives (Babin et.al., 2005)
11. My relatives strongly advised me to study MBA in B-school X.
12. My relatives advocate more for MBA of this B-school X than competing B-schools.
13. MBA of B-school X is well known to my relatives.
Purchase intentions (Burner, Hansel & James, 2005)
14. I would like to study MBA in B-school X
15. I intend to get admission in MBA in B-school X.
16. My willingness to get admission in MBA of B- School X is very high.

Similarly a scale for measuring brand attitude was added in order to test the construct validity of the brand equity measurement because brand attitude assesses the strengths of brand. Five point schematic differential scales were used for measuring

brand attitudes (Burner, Hansel & James, 2005). The scale for measuring brand attitude was presented in table 10.

Table 10

Scale of Brand Attitude

In my opinion, MBA of B-school X is …						
Very good	1	2	3	4	5	Very bad
Very favorable	1	2	3	4	5	Very unfavorable
Extremely likable	1	2	3	4	5	Extremely dislikable
Very acceptable	1	2	3	4	5	Very unacceptable
Very pleasing	1	2	3	4	5	Very unpleasing

Perceived quality measures students' subjective judgments about a product's functional attributes in terms of quality, reliability and features. The perceived quality is related to students' evaluation of attributes of the education program offered by a focal institution compared to competitors. Perceived value refers to customers' overall assessment of the utilities of education program in comparison to what they paid for it. Organization association is the trust of customers on a focal institution in comparison to other competing institutions and their pride of being associated with the institution. The scales for measuring perceived quality, perceived value and organizational association were borrowed from the articles of Pappu, Quester and Cooksey, (2005) and Buil, Chernatory and Martinez (2008).

Brand attitude is measured through bi-polar scale consisting of adjectives to measure the subjects' overall assessment of a brand. This scale is suitable to measure products and services. The scale was adapted from different types of brand attitude

measurement scale (Burner, Hensel, & James, 2005). Brand attitude is related with brand strengths.

Purchase intention scale measures the inclination of a customer to buy a specified service. Purchase intention will be high when customers stated likelihood of purchasing the products. It is an indicator of strong willingness to buy. This scale was adapted from different scales which measured different types of products and services (Burner, Hensel & James, 2005). Purchase intentions will be strong when brand equity is high on a focal institution.

Questionnaire for biographic data were also added in the questionnaire. As suggested by the experts, the questionnaire also contained whether close associates have ever studied in the same school, and applicants' relationship with them. Similarly, questions measuring the extent and types of influences of relatives and friends on their decision to apply for admission were also included. The respondents were requested to read the statements carefully and honestly to give their opinion. They were told that there are no right and wrong answers.

Sample Profile of Applicants' Study

For this purpose, the applicants were contacted in KUSOM premises. Those applicants who said that they were applying in different business schools for MBA were selected as participants for the survey. They were requested to fill in this questionnaire for their opinion on the most familiar business schools, because brand equity can be measured in the situation where respondents are familiar with the brand.

Altogether 350 questionnaires were distributed to MBA applicants. Among them 226 usable responses were received. Therefore the respondents selected were based on purposive sampling method at KUSOM by contacting those who were willing to fill in the questionnaire. Among them 80% said that they were most

familiar with KUSOM and the rest said that they were familiar with ACE and APEX. Among the respondents 52.1% were male. Ninety four percent of the students were between 21 to 25 years of age. About 84% had undergraduate degree in management. About 36% of the respondents said that their average monthly family income was Rs. 30000 to 60000 and 39.4% of their family earned less than 30000 per month. About 53.7% of the respondents said that their close associates have studied in the same institutions in the past and most of them were their friends (29.6%) followed by brothers and sisters (10%) and cousins (12%).

Criteria of Exploratory Factor Analysis of Applicants' Study

Purpose of exploratory factor analysis in this phase of study was to identify the structure among a set of variables relating to brand drivers, brand dimensions and brand equity on MBA applicants. EFA was carried out after checking the basic assumptions.

A sample size of 226 is suitable for factor analysis (Hair et. al., 1998). Using iterative process factor analysis was carried out to identify the structure of the variables under the study. Twenty two items were loaded in the final factor analysis after deletion of the items not meeting the standard assumptions. The EFA met the standard of sample size of five times as many observation as the number of variables analyzed (226/22 = 10.27 times) (Hitkin, 1998). In such large sample size, factor loadings limits can be >.40 (Hair et.. al., 1998). Normality of the data of the loaded variables was presented in the following table.

Table 11

Normality Test of the Items used for Factor Analysis of Applicants' Survey

Items	Mean	Skewness	Kurtosis
BE 1	4.3230	-1.193	1.535
BE 2	4.4248	-1.806	2.823
BE 3	4.2920	-1.452	1.228
CUR 1	4.2301	-.429	-.588
CUR 2	4.1681	-.559	.301
CUR 3	4.0487	-.321	-.599
FAC 1	4.1681	-.819	.834
FAC 2	4.1770	-.563	-.068
INF 1	3.8274	-.332	.302
INF 2	3.8230	.130	-1.060
INF 3	3.9292	-.338	-.312
EMP 1	4.0310	-.646	.536
EMP 2	4.0708	-.310	-.575
EMP 3	3.8805	-.180	-.265
AD 1	3.3053	-.128	-.198
AD 2	3.0265	-.027	-.157
AD 3	3.0044	-.065	-.481
WOM 1	4.2124	-1.193	.675
WOM 2	4.0708	-.910	.212
WOM 3	4.1858	-1.164	.491
WOM 4	4.0487	-.827	-.043

Note: BE=Brand equity, CUR=Curriculum, FAC=Faculty, EMP=Employability, INF=Infrastructure, AD=Advertisements, WOM=Word of mouth.

The threshold for normality test of +/- 1.000 for skewness and +/- 2.000 for kurtosis was met by almost all the variables except five in skewness. The five variables deviating from normality were retained for conceptual requirement.

Common factor analysis was used with maximum likelihood extraction method. After screening the data matrix from basic assumptions and communalities, the scree test was used as guideline for extracting the desired number of factors. Oblique factor rotation with direct oblimin with the dafult delta (0) was used to make extracted factors correlated with each other (Hair et. al., 1998). Pattern matrix was examined for factor/ item loading. The factor score coefficient matrix was displayed and the factors were sorted by size.

The final factor model satisfied all the required criteria. None of the anti-image correlations exceeded .70 in the factor solution. In addition the significant bartlett's test of sphericity (p=.000) indicated presence of adequate correlations among the variables. All the MSA exceeded .70. Overall (Kaiser-Meyer-Olkin's) MSA is .874. In this EFA the communalities of six variables were higher than .50 and the rest have above .60. Cumulative variance explained was 78.1%. The table 12 indicated the best structure after incorporating different assumptions and requirements.

Factor analysis of Applicants' Study

Almost all except one factor loadings exceeded .60 without cross loading in seven different factors.

Table 12

Factor Result of Applicants' Survey

Items	FAC	WOM	INF	AD	EMP	BE	CUR
FAC 1	.967	-.025	-.027	.006	.054	.024	.036
FAC 2	.556	.073	.163	.050	.052	.063	.062
WOM 1	-.051	.852	.056	.047	.012	-.008	-.008
WOM 2	.096	.827	-.031	-.015	-.064	.002	.090
WOM 3	.068	.769	-.072	-.003	.098	.038	.052
WOM 4	-.075	.730	.059	-.021	.110	.080	-.035
INF 1	-.006	.039	.907	.041	.002	-.025	.003
INF 2	-.027	-.018	.764	.021	.043	.049	.021
INF 3	.089	.007	.751	-.062	-.037	-.022	.074
AD 1	-.016	.079	-.054	.769	-.052	-.014	.061
AD 2	.096	-.022	.141	.766	-.001	-.040	-.136
AD 3	-.027	-.042	-.043	.690	.048	.021	.074
EMP 1	.080	.034	-.069	-.011	.806	.066	-.008

EMP 2	.021	.021	.007	-.088	.740	-.040	.120
EMP 3	-.005	.071	.084	.112	.630	.036	-.052
BE 1	.040	.034	-.035	-.007	-.004	.884	-.005
BE 2	.036	.123	-.011	-.026	-.075	.825	-.054
BE 3	-.026	-.088	.048	.009	.106	.605	.101
CUR 1	-.019	-.004	.066	.013	.005	.060	.830
CUR 2	.002	.071	.098	.059	.086	-.005	.659
CUR 3	.150	.067	-.008	.007	.001	.026	.615

Note: BE=Brand equity, WOM=Word of mouth, AD=Advertisements, CUR=Curriculum, EMP=Employability, INF=Infrastructure, FAC=Faculty

The factor solution indicated unidimensionality of the items loaded on a single factor without cross loadings. EFA result produced seven factors namely qualified faculty (two items), physical infrastructure (three items), and employability after graduation (three items) and brand equity (three items) as in pilot study for students. The few items not loaded were "B-school X's graduates achieved high position in their job" in employability, and B-school X has good building" and B-school X has good open area" in infrastructure. The factor result produced word of mouth (four items - two from relatives and other two from friends), advertisement (three items) and curriculum (three items). The loaded factors and their items were mentioned below:

Table 13

Items Loaded in Factor Results on Applicants' Survey

Factors and Corresponding Statements
Brand equity
1. I can recognize B-school X among other competing B-schools for MBA programs.
2. I would definitely recommend to others to make B school X their first choice when considering studying MBA program.
3. MBA of B-school X is the best choice for me.
Curriculum

4. MBA in B-school X provides practically oriented knowledge.
5. MBA in B-school X provides practical assignments.
6. MBA in B-school X provides sufficient case studies

Quality of faculty

7. B-school X has professional faculty in its MBA program.
8. B-school X has competent faculty in its MBA program.

Infrastructure

9. B-school X has a well equipped library for its MBA program.
10. B-school X has good computer labs for its MBA program.
11. B-school X has good classrooms for its MBA program.

Employability

12. B-school X creates opportunities for a highly paid job after MBA.
13. B-school X has a good placement of MBA graduates.
14. B-school X's MBA graduates have earned a good money.

Advertisement

15. MBA of B-school X is intensively advertised.
16. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.
17. The ad campaign for MBA of B-school X is seen frequently.

Word of mouth

18. My friends and relatives strongly advised me to study MBA in B-school X.
19. My friends and relatives advocate more for MBA of B-school X than competing B-schools.
20. My parents in particular strongly advised me to study MBA in B-school X.
21. My parents in particular advocate more for MBA of B-school X than competing B-schools.

Although there were slight differences in item loadings in the factors between pilot surveyed students and applicants, consistency in factors extraction of faculty, employability, infrastructure, and brand equity confirm the existence of brand equity structure among the students and applicants alike. In addition, applicants also considered curriculum, advertisements and word of mouth as important aspects of brand equity.

Brand dimensions factors: brand awareness, perceived quality and brand image were not extracted in brand equity model. They were used for assessing construct validity, because they were related with brand strengths and should have significant correlation with brand equity and associated facets.

Reliability Measurements in Applicants' Study

Summated scales were calculated for all the factors extracted in the factor analysis and other factors relevant to brand dimensions and brand equity.

Table 14

Reliability Test Results on Applicants' Survey

Factors	Number of Items	Cronbach's Alpha
Brand equity	3	.838
Employability	3	.823
Infrastructure	3	.870
Faculty	2	.842
Curriculum	3	.845
Advertisement	3	.789
Word of mouth	4	.909
Perceived quality	4	.833
Perceived value	3	.730
Brand awareness	3	.560
Organizational association	3	.253
Brand attitudes	5	.890
Purchase intentions	3	.931

All the factors extracted by the factor analysis had adequate internal consistency and reliability supporting content validity. Similarly, among the measures of brand dimensions, perceived quality and perceived value had reliability. The scales of measuring brand awareness and organization association were discarded for further analysis due to lack of reliability. In addition, reliability indicators of brand attitudes and purchase intentions were sufficient.

Construct Validity of the Latent Variables in Applicants' Study

In order to test whether extracted factors had construct validity, the correlation between the variables were compared. The following table presents the correlations.

Table 15

Construct Validity of the Scales used in Applicants' Survey

	PQ	PV	BA	PI	FAC	INF	EMP	WOM	AD	CUR
BE	.582**	.663**	.574**	.782**	.405**	.150*	.480**	.555**	-.079	.441**
PQ		.668**	.459**	.530**	.561**	.389**	.563**	.478**	.116	.598**
PV			.523**	.612**	.454**	.210**	.554**	.571**	.042	.441**
BA				.642**	.389**	.197**	.450**	.460**	.008	.358**
PI					.431**	.138*	.521**	.647**	-.067	.452**

Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, BA=brand attitudes, PI = Purchase intentions, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, CUR=Curriculum. *significant at p<.05, ** significant at p>.01.

This table 15 indicated that brand equity had significant correlations with perceived quality and perceived value. Similarly brand equity had significant correlation with quality of faculty, curriculum and employability. Perceived quality had significant relationship with all program attributes. Perceived value has significant correlations with all program attributes and word of mouth. Advertisement did not have significant correlations with brand equity and brand dimensions. Significant correlations among the brand dimensions and brand equity but less than .70 indicated the convergent and discriminant validity of the brand equity scale.

The table 15 also indicated that brand equity was significantly correlated with purchase intentions and brand attitudes. These correlations further supported construct validity of brand equity constructs and its associated brand dimensions. Similarly purchase intentions and brand attitudes were significantly correlated with all other brand dimensions and program attributes similar to the pattern of relationship among brand equity and dimensions. As the measures with the same concept are correlated, they have validity because they measured the extent to which a scale measure accurately represents the concept of interest (Hair et. al., 1998).

In summary, the extracted items in the factor analysis of applicants' survey and their corresponding factors were found valid in measuring the brand equity of

higher education institutions. Same factors extracted in this study and pilot study indicated the consistency of brand equity constructs and its facets. Therefore the factors and corresponding items were replicated in next phases of the study. The items that did not load and factors that were not extracted so far were excluded from the study. Since there were some inconsistencies in the items loaded in the factors in these two studies, all the items loaded in either one of the studies were included in the next phases of the study. The factors and the corresponding items of brand dimensions were continued for further explorations. Therefore, the items so far loaded in brand equity, faculty, employment, curriculum, infrastructure, word of mouth and advertisement were replicated in the next phases of the study.

Effects of Influencers on Applicants' Choice of Institutions

There has been belief that school choice is influenced by parents and relatives. Therefore, degree of influence of relatives and friends in applicants' decisions on choice of institutions was assessed in this study. The respondents were asked whether the decisions to apply in the institutions were influenced by any other persons. They were also asked to indicate the types of the suggestions. About 47% of the respondents' decision to apply for MBA was influenced by either their relatives or friends with different types of advices.

Table 16

Influences of Relatives and Friends on Applying for B-Schools

Relations	Total involvement	Consulted only	Suggested by them	Convinced by them	Insisted by them
Parents or guardian	94% (96/102)	47.9%	28.1%	5.2%	18.8%
Uncles or aunts	39.2% (40/102)	25.0%	57.5%	2.5%	15.0%
Brothers or sisters	60.78% (62/102)	40.0%	21.0%	22.6%	16.1%
Cousins	37.3% (38/102)	47.4%	31.6%	7.9%	13.2%
Neighbors	42.2% (43/102)	23.3%	44.2%	20.9%	11.6%
My friends	81.4% (83/102)	50.6%	25.3%	12.0%	12.0%

Note: Parenthesis indicates total number of responses out of total respondents who were reported to be influenced by somebody while applying for MBA

The table 16 indicated that friends and parents were dominant influencers in the decision making. The most of the influences were consultation and suggestions only but not dictating. Although relatives and parents did have strong influences on applicants' choice decision they might have played key role in developing perception and preference on one institution over others. Therefore, next study explored the brand equity structure among the influencers.

Brand Equity of Influencers

Third phase of the survey was carried out on influencers who advised MBA applicants to select a particular higher education institution against competing institutions. In the previous sections the influencers were found to be parents, brothers and sisters, cousins and friends. Since they played a crucial role in students' choice of the institutions, influencers' perceptions and preferences also determine the brand value of the institutions. This section presents the process used in the survey on influencers. The objective of this survey was to replicate the purified items generated in pilot study and applicants study in order to generate the constructs and structure of brand equity among the influencers.

Instruments and Measures for Influencers' Study

All the items loaded either one of the studies were included in this phase of the study. Therefore, 26 items so far loaded in brand equity (4 items), faculty (3 items), employability (4 items), curriculum (3 items), infrastructure (5 items), word of mouth (4 items) and advertisement (3 items) were replicated in this study. The factors and the corresponding 13 items of brand dimensions: perceived quality (4 items), perceived value (3 items) organizational association (3 items) and brand awareness (3 items) were continued in this study. Similarly five point schematic differential scales of brand attitudes was repeated in this study for testing construct validity of the brand equity measurement.

Questions on biographic data were also added in the questionnaire. A question identifying relationships with the students or applicants to whom they had advised were also included in this questionnaire. The respondents were requested to read the statements carefully and honestly to give their opinion. They were told that there are no right and wrong answers.

Sample Profile of Influencers' Study

The questionnaires were given to 26 MBA students who were asked to contact 10 influencers each. They were asked to get the questionnaires filled in by the people who have influenced them and contact their colleagues' influencers to get it done. Altogether 221 usable questionnaires were returned for the data analysis.

Sample profile of this study indicated that 88.70% said that they have already influenced the students or applicants to study MBA. About 67% of the influencers were most familiar with KUSOM and the rest with ACE, APEX, Whitehouse, and others. Among the respondents 52.5% were male. About 73.3% of the respondents were between 21 to 30 years of age. Majority of them (56.6%) had bachelor degree

and the other 28.5% has masters' degree in management. About 21% have been running private business organizations as their occupations and 39.4% were the students studying in different institutions. Among the influencers 50.5% were relatives in which 35.1% were close family members such as parents, brothers and sisters and 15.4% were uncle, aunts and cousins. Friends accounted for 40% of the influencers and teachers represented 9.5% of the influencers.

Criteria of Exploratory Factor Analysis of Influencers' Study

Exploratory factor analysis was carried out after checking the basic assumptions. A sample size of 221 is suitable for factor analysis (Hair et. al., 1998). Using iterative process factor analysis was carried out to identify the structure of the variables under the study. Twenty three items were loaded in the final factor analysis after deletion of the items not meeting the standard assumptions. The EFA met the standard of producing factor result of five times as many observation as the number of variables analyzed (221/23 = 9.6 times) (Hitkin, 1998). Normality of the data of the loaded variables was presented in the following table.

Table 17

Normality Test of the Items used for Factor Analysis of Influencers' Survey

Items	Mean	Skewness	Kurtosis
BE1	4.3394	-1.176	3.764
BE 2	4.0995	-1.314	1.924
BE 3	4.0226	-1.072	1.066
BE 4	3.8507	-.845	.694
FAC 1	3.7285	-.515	.617
FAC 2	3.7195	-.505	.562
FAC 3	3.6154	-.594	.939
INF 1	3.8371	-.832	.849
INF 2	3.6878	-.127	-.097
INF 3	3.7919	-.087	-.352
INF 4	3.7737	-.252	-.197
INF 5	3.6561	-.765	1.138
EMP 1	3.7511	-.523	.512
EMP 2	3.7647	-.530	.591
EMP 3	3.7511	-.459	1.214

EMP 4	3.8054	-.315	.053
AD 1	3.0317	-.018	-.676
AD 2	2.8733	.164	-.369
AD 3	2.8507	.342	-.694
WOM 1	3.7059	-.789	.305
WOM 2	3.6471	-.738	.264
WOM 3	3.6425	-.824	.517
WOM 4	3.6878	-.693	.232

Note: BE=Brand equity, FAC=Faculty, EMP=Employability, INF=Infrastructure, AD=Advertisements, WOM=Word of mouth.

The threshold for normality test of +/- 1.000 for skewness and +/- 2.000 for kurtosis was met by almost all the variables. The three variables deviating from normality were retained for conceptual requirement.

The same process of screening the data matrix, tests and factor rotation was used before factor analysis. Six factors have eigen values greater than 1.0. The final factor model satisfied all the required criteria. None of the anti-image correlations exceeded .70 in the factor solution. In addition the significant bartlett's test of sphericity (p=.000) was adequate. All the MSA exceeded .70. Overall (Kaiser-Meyer-Olkin's) MSA was .844. All the variables except seven (4 variables > .40 and 3 variables >.50) had communalities greater than .60. Cumulative variance explained was 72.6%. The table indicated the best structure after incorporating different assumptions and requirements after slight compromise in statistical requirements especially in normality and communalities.

Factor Analysis of Influencers' Study

Almost all factor loadings exceeded .60 without cross loading in six different factors

Table 18

Factor Result of Influencers' Survey

Items	WOM	AD	INF	BE	EMP	FAC
WOM 1	.928	-.048	.022	.053	-.011	.041
WOM 2	.874	-.022	.030	.058	.049	.027
WOM 3	.694	.062	-.059	-.104	.013	-.043
WOM 4	.633	.026	-.089	-.097	.008	-.088
AD 1	.055	.879	-.023	.061	.055	.079
AD 2	-.031	.860	-.021	.003	.035	-.011
AD 3	-.031	.786	.033	-.031	-.066	-.003
INF 1	.051	.009	-.916	-.007	-.172	.023
INF 2	.060	.000	-.763	-.098	-.090	-.099
INF 3	-.017	-.013	-.686	.040	.079	.007
INF 4	-.025	.090	-.632	.048	.038	-.205
INF 5	.028	-.045	-.548	-.040	.270	.091
BE 1	.067	.026	.086	-.847	-.024	-.132
BE 2	.135	.044	.123	-.696	-.004	-.155
BE 3	-.086	-.055	-.121	-.567	.021	.027
BE 4	.107	-.032	-.017	-.533	.147	.120
EMP 1	.027	.010	.039	.048	.837	.028
EMP 2	.080	-.023	-.001	-.119	.737	.022
EMP 3	.023	.023	-.051	-.079	.682	-.155
EMP 4	.043	.021	-.017	-.043	.657	-.168
FAC 1	.043	-.072	-.028	.051	.037	-.885
FAC 2	.011	.010	-.032	-.095	.082	-.689
FAC 3	.033	.125	-.179	-.163	.133	-.476

Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement.

EFA result produced six factors namely qualified faculty (three items), physical infrastructure (five items), and employability after graduation (four items) and brand equity (four items), word of mouth (four items), advertisement (three items) and brand equity (four items). Curriculum factor was not extracted in this factor analysis. Similarly, items on brand dimensions were not loaded and corresponding

factors were not extracted in this factor analysis. The factor solution indicated unidimensionality of the items loaded on a single factor without cross loadings. The loaded factors and their items were mentioned below:

Table 19

Items Loaded in Factor Results on Influencers' Survey

Brand equity (BE)
1. I can recognize B-school X among other competing B-schools for MBA programs.
2. I would definitely recommend to others to make B-school X their first choice when considering studying MBA program.
3. MBA of B-school X is the best choice for MBA students.
4. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.
Quality of faculty (FAC)
5. B-school X has qualified faculty in its MBA program.
6. B-school X has professional faculty in its MBA program.
7. B-school X has competent faculty in its MBA program.
Infrastructure (INF)
8. B-school X has a good building for its MBA program.
9. B-school X has a well equipped library for its MBA program.
10. B-school X has good computer labs for its MBA program.
11. B-school X has good classrooms for its MBA program.
12. B-school X has a good open area for its MBA program.
Employability (EMP)
13. B-school X creates opportunities for a highly paid job after MBA.
14. B-school X has a good placement of MBA graduates.
15. B-school X's MBA graduates have earned a good money.
16. B-school X's MBA graduates achieved higher career positions.
Advertisement (AD)
17. MBA of B-school X is intensively advertised.
18. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.
19. The ad campaign for MBA of B-school X is seen frequently.
Word of mouth (WOM)
20. My friends strongly advised students to study MBA in B-school X.
21. My friends advocate more for MBA of B-school X than competing B-schools.
22. My relatives advocate more for MBA of B-school X than competing B-schools.
23. My relatives strongly advised students to study MBA in B-school X.

Although there were some differences in item loading in applicants and influencers, consistency in factors extraction of faculty, employability, infrastructure,

advertisement, word of mouth and brand equity confirm the existence of brand equity structure among the students and applicants and influencers alike. However, influencers did not consider curriculum as an important aspect of brand equity.

Brand dimensions factors: brand awareness, perceived quality and brand association were not extracted in this brand equity structure.

Reliability Measurement in Influencers' Study

Summated scales were calculated for all the factors extracted in factor analysis and other factors relevant to brand dimensions and brand equity.

Table 20

Reliability Test Results on Influencers' Survey

Factors	Number of Items	Cronbach's Alpha
Brand equity	4	.802
Employability	4	.877
Infrastructure	5	.849
Faculty	3	.835
Advertisement	3	.875
Word of mouth	4	.885
Perceived quality	4	.868
Perceived value	3	.745
Organizational association	3	.790
Brand awareness	3	.660
Brand attitudes	5	.903

All the factors extracted by the factor analysis have adequate internal consistency and reliability supporting content validity. Similarly, all the measures of brand dimensions except brand awareness have reliability. Reliability indicators of brand attitudes were excellent.

Construct Validity of the Latent Variables in Influencers' Study

In order to test whether extracted factors have construct validity, the correlation between the variables were compared. The following table presents the correlations.

Table 21

Construct Validity of the Scales used in Influencers' Survey

	PQ	PV	OA	BA	EMP	FAC	WOM	INF	AD
BE	.632**	.656**	.691**	.552**	.512**	.461**	.482**	.258**	-.074
PQ		.703**	.684**	.545**	.527**	.547**	.361**	.397**	.059
PV			.685**	.478**	.552**	.502**	.486**	.315**	-.019
OA				.493**	.570**	.504**	.443**	.345**	-.102
BA					.473**	.456**	.334**	.405**	.031

Note: BE=Brand equity, PQ=Perceived quality, PV=Perceived value, OA= Organizational association, BA=Brand attitudes, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, *significant at p<.05, ** significant at p>.01.

The table 21 indicated that brand equity had significant correlations with perceived quality, perceived value and organization association. Similarly brand equity has significant correlation with quality of faculty, infrastructure and employability. Perceived quality has significant relationship with all program attributes. Perceived value and organization association both had significant correlations with all program attributes and word of mouth. Advertisement did not have significant correlations with brand equity and brand dimensions. Significant correlations among the brand dimensions and brand equity but less than .70 indicated the convergent and discriminant validity of the brand equity scale.

The table 21 also indicated that brand equity was significantly correlated with brand attitudes. These correlations further supports construct validity of brand equity constructs and its associated brand dimensions. Similarly brand attitudes were significantly correlated with all other brand dimensions and program attributes similar to the pattern of relationship among brand equity and dimensions. As the measures with the same concept are correlated, they have validity because they measured the extent to which a scale measure accurately represents the concept of interest (Hair et. al., 1998).

In summary, the extracted items in the factor analysis of influencers' survey and their corresponding factors were found valid in measuring the brand equity of higher education institutions. The same factors extracted in this study and previous study indicated the consistency of brand equity constructs and its facets.

Comparison between the Factor Analyses of Applicants and Influencers

The influencers did not consider curriculum as an important factor in the structure of brand equity which applicants did. This showed that applicants were concerned with practical curriculum which the influencers did not. Among the brand dimensions brand awareness did not measure consistently in both of the survey which signified that this constructs cannot be used in measuring the brand equity in both of the sample groups. Influencers appeared to be more elaborative in their perceptions than applicants because the items that did not loaded in the associated factors in applicants' survey were loaded in the factor analysis of influencers.

Brand Equity of the Students

Fourth phase of the survey was carried out on MBA students. The students have longer experiences and exposures to the brand in comparison to applicants and influencers. This group might reflect complete brand equity. This section presented the process used in the survey on students. The objective of this survey was to replicate the purified items and generate the constructs and structure of brand equity among the students.

Instruments and Measures for Students' Study

Twenty six items used in previous phase of study were replicated in this study. Therefore, the questionnaire consisted of items for measuring brand equity (4 items), faculty (3 items), employability (4 items), curriculum (3 items), infrastructure (5 items), word of mouth (4 items) and advertisement (3 items). The factors and the

corresponding 13 items of brand dimensions: perceived quality (4 items), brand image in value (3 items) organizational brand association (3 items) and brand awareness (3 items) were continued in this study. Similarly five point schematic differential scales of brand attitudes was repeated in this study for testing construct validity of the brand equity measurement.

In addition, a scale for measuring acceptability of choice alternatives was also included in the questionnaire. This scale measures the degree to which a customer believes that there are acceptable sources of a alternative product. This scale is also called attractiveness of alternatives (James, Motherbach, & Beatty, 2000 in Burner, Hensel & James, 2005). This construct is contradictory to brand equity because stronger the brand equity the greater will be commitment to continue study and less will be acceptability of choice of alternatives.

Table 22

Added Scale in Students' Survey

Acceptability of choice alternatives (James et. al. 2000)
1. If I need to change B-school X, there are other good business schools to choose from.
2. I would probably be happy with MBA of other business schools.
3. Compared to B-school X, there are other B-schools with which I would probably be equally or more satisfied.
4. Compared to B-school X, there are not many other B-schools with which I could be satisfied.

Sample Profile of Students' Study

The MBA students who have been studying in the selected business schools were the participants. They were requested to fill in the questionnaire for their opinion on the business school that they have been studying, because brand equity can be measured in the situation where respondents are familiar with the brand. Altogether 320 questionnaires were distributed to students 80 each of four different

business schools – KUSOM, ACE, APEX and Whitehouse. Among them 223 usable responses were received. The sample represented almost equal proportion (25%) of students from each business school. Among the respondents 44.4.5% were female. About 72.2% of the respondents were between 21 to 25 years of age. Similarly about 56.5 % the students were studying in the second year of the study in third and fourth semester. Almost 76% of the respondents were MBA students, and the remaining were EMBA and MBA evening.

Criteria of Exploratory Factor Analysis of Students' Study

Exploratory factor analysis was carried out after checking the basic assumptions. A sample size of 223 is suitable for factor analysis (Hair et. al., 1998). Using iterative process factor analysis was carried out to identify the structure of the variables under the study. Thirty one items were extracted meeting the standard of producing factor result such as five times as many observation as the number of variables analyzed (223/31 = 7.1 times). The items were loaded in the final factor analysis after deletion of the items not meeting the standard assumptions. Normality of the data of the loaded variables was presented in the following table.

Table 23

Normality Test of the Items used for Factor Analysis of Students' Survey

Items	Mean	Skewness	Kurtosis
BE 1	4.2691	-1.557	4.282
BE 2	3.9238	-.949	.910
BE 3	3.8475	-.573	.081
BE 4	3.6726	-.417	.250
FAC 1	3.9821	-1.067	1.260
FAC 2	3.9910	-.978	.994
FAC 3	3.8072	-.866	.836
INF 1	3.9013	-.826	.803
INF 2	3.5605	-.664	.179
INF 3	3.6547	-.633	.261
INF 4	3.7892	-.991	1.065
EMP 1	3.5785	-.486	.418
EMP 2	3.4709	-.393	.499
EMP 3	3.6278	-.244	.612
EMP 4	3.6637	-.175	.165
AD 1	3.2691	-.048	-.728
AD 2	3.2377	.001	-.718
AD 3	3.1570	-.177	-.908
WOM 1	3.5112	-.292	-.765
WOM 2	3.3812	-.260	-.482
WOM 3	3.3677	-.163	-.659
WOM 4	3.3767	-.302	-.349
PQ 1	3.7713	-.788	.657
PQ 2	3.7130	-.600	.538
PQ 3	3.8296	-.583	.572
OA 1	3.9686	-.503	.454
OA 2	4.0045	-.361	-.389
OA 3	3.9193	-.643	.424
BAW 1	3.8924	-.548	-.097
BAW 2	4.0448	-.994	1.024
BAW 3	3.9596	-.720	.107

Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, BAW=Brand awareness, OA=Organizational association.

The threshold for normality test of +/- 1.000 for skewness and +/- 2.000 for kurtosis was met by almost all the variables. Two variables slightly deviating from normality were retained for conceptual requirement.

The same process and methods were used in the data matrix for evaluating basic assumptions, communalities and factor analysis. Six factors have eigen values

greater than 1.0. The final factor model satisfied all the required criteria. None of the anti-image correlations exceeded .70 in the factor solution. In addition the significant bartlett's test of sphericity (p=.000) indicated presence of adequate correlations among the variables. All the MSA exceeded .70. Overall (Kaiser-Meyer-Olkin's) MSA is .865. In this EFA the communalities of twelve variables were higher than .50, the rest have above .60. Cumulative variance explained was 72.6%. The table indicated the best structure after incorporating different assumptions and requirements.

Factor Analysis of Students' Study

Almost all factor loadings exceeded .60 without cross loading in eight different factors and six loadings were below .60 but was accepted as the sample size exceeded 200 and compromised under conceptual ground.

Table 24

Factor Results of Students' Survey

Items	PQ	BE	AD	EMP	OABW	FAC	WOM	INF
PQ 1	.988	.002	-.002	.057	-.008	-.015	.011	-.016
PQ 2	.477	.186	.049	.090	.066	.085	-.005	.132
PQ 3	.474	.127	.061	.143	.116	.104	-.051	.126
BE 1	.069	.941	.018	.018	-.045	-.066	.040	.019
BE 2	.036	.673	-.032	.054	.032	.039	.015	-.044
BE 3	-.005	.669	-.001	.045	.083	.087	.008	.067
BE 4	.002	.407	.050	-.059	.045	.225	.216	.134
AD2	-.068	-.031	.887	.006	.038	-.040	-.059	.043
AD 3	.151	-.005	.772	.023	-.071	.079	.050	-.151
AD 1	-.031	.019	.666	.062	-.007	.021	-.038	.045
EMP 1	.023	.061	.032	.862	-.063	-.042	.032	-.019
EMP 2	.004	-.012	.051	.654	.015	.044	.036	.168
EMP 3	.086	.084	.025	.632	.120	-.018	.023	-.015

EMP 4	.120	-.085	.097	.462	.073	.148	.138	.103
OA 1	.108	-.075	.041	-.091	.781	-.083	.098	.120
BAW 1	-.125	-.015	-.045	.115	.752	.079	-.052	-.011
BAW 2	.070	-.015	-.126	.075	.738	.147	-.065	-.142
OA 2	.016	.000	.065	.052	.716	-.089	.111	.056
BAW 3	.009	.145	.045	.071	.685	-.099	.053	-.063
OA 3	.065	.119	.024	-.130	.672	-.033	.003	.037
FAC 1	-.038	.117	-.006	.022	.020	.850	.010	-.055
FAC 2	.064	-.086	.073	.068	-.067	.815	.000	.028
FAC 3	.096	.121	.050	-.045	-.015	.690	-.034	.065
WOM 1	.009	.045	-.134	.060	-.056	-.027	.894	-.102
WOM 2	-.044	-.039	-.038	.036	-.008	-.081	.821	.024
WOM 3	.008	.075	.031	.053	.098	.076	.633	.114
WOM 4	.067	.069	.210	-.051	.114	.115	.563	.046
INF 1	-.062	.131	.055	.092	-.026	-.123	.026	.775
INF 2	.117	-.065	-.038	.040	-.028	.024	.024	.667
INF 3	-.002	.109	.080	.139	.036	.191	.019	.459
INF 4	.124	.027	-.048	-.005	.102	.289	.021	.458

Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, OA=Organizational association, BAW=Brand awareness, OABW=Organizational association and brand awareness.

EFA result produced eight factors namely qualified faculty (three items), physical infrastructure (four items), and employability after graduation (four items) and brand equity (four items), word of mouth (four items), and advertisement (three items) as in previous phases of study, and two additional factors of brand dimensions viz brand image – organizational association and brand awareness clubbed together (six items), perceived quality (three items). The factor solution indicated unidimensionality of the items loaded on a single factor without cross loadings. The loaded factors and their items were mentioned below:

Table 25

Items Loaded in Factor Results on Students' Survey

Brand equity (BE)
1. I can recognize B-school X among other competing B-schools for MBA programs.
2. I would definitely recommend to others to make B-school X their first choice when considering studying MBA program.
3. MBA of B-school X is the best choice for MBA students.
4. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.

Quality of faculty (FAC)
5. B-school X has qualified faculty in its MBA program.
6. B-school X has professional faculty in its MBA program.
7. B-school X has competent faculty in its MBA program.

Infrastructure (INF)
8. B-school X has a good building for its MBA program.
9. B-school X has a well equipped library for its MBA program.
10. B-school X has good computer labs for its MBA program.
11. B-school X has good classrooms for its MBA program.

Employability (EMP)
12. B-school X creates opportunities for a highly paid job after MBA.
13. B-school X has a good placement of MBA graduates.
14. B-school X's MBA graduates have earned a good money.
15. B-school X's MBA graduates achieved higher career positions.

Advertisement (AD)
16. MBA of B-school X is intensively advertised.
17. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.
18. The ad campaign for MBA of B-school X is seen frequently.

Word of mouth (WOM)
19. My friends strongly advised students to study MBA in B-school X.
20. My friends advocate more for MBA of B-school X than competing B-schools.
21. My relatives advocate more for MBA of B-school X than competing B-schools.
22. My relatives strongly advised students to study MBA in B-school X.

Perceived quality (PQ)
23. B-school X offers very good quality MBA program.
24. B-school X offers MBA of consistent quality.
25. B-school X offers very reliable MBA.

Organizational association and Brand awareness (OABW)
26. I trust MBA from B-school X.
27. The MBA from B-school X has credibility.
28. Getting admission in MBA of B-school X is my pride.
29. When I think of MBA, B-school X is one of the B-schools that come to mind.
30. I can quickly recall the symbol or logo of B-school X.
31. Some characteristics of B-school X come quickly to my mind.

There were almost negligible differences in item loading in influencers and students except one in infrastructure – "B-school X has a good open area for its MBA program" that did not load in students' survey. Consistency in factors extraction of faculty, employability, infrastructure, advertisement, word of mouth and brand equity confirm the existence of brand equity structure among the students, applicants and influencers alike. However, students also did not consider curriculum as important aspects of brand equity.

Extraction of factors of brand dimensions- perceived quality and organizational association combined with brand awareness was similar to brand equity theory as found in the most brand literature (e.g. Yoo & Donthu, 2001). Perceived value was not extracted in this brand equity structure.

Reliability Measurement in Students' Study

Summated scales were calculated for all the factors extracted in factor analysis and other factors relevant to brand dimensions and brand equity.

Table 26

Reliability Test Results on Factors on Students' Survey

Factors	Number of Items	Cronbach's Alpha
Brand equity	4	.868
Employability	4	.850
Infrastructure	4	.798
Faculty	3	.876
Advertisement	3	.823
Word of mouth	4	.854
Perceived quality	3	.868
Organization association and brand awareness	6	.882
Perceived value	3	.770
Brand attitudes	5	.920
Acceptability of choice alternative	3	.715

All the factors extracted by the factor analysis have adequate internal consistency and reliability supporting content validity. Same is the case for perceived

value and brand attitudes. One item relating to acceptability of choice was discarded as it affected the inconsistency indicators may be because the item were negatively worded in reversed scale. In addition, reliability indicators of brand attitudes were excellent.

Construct Validity of the Latent Variables in Students' Study

In order to test whether extracted factors have construct validity, the correlation between the variables were compared. The following table presents the correlations.

Table 27

Construct Validity of the Scales used in Students' Survey

	PQ	OABW	PV	BA	ACA	FAC	INF	EMP	AD	WOM
BE	.548**	.424**	.583**	.426**	-.064	.476**	.476**	.455**	.190**	.497**
PQ		.396**	.618**	.438**	-.063	.530**	.534**	.562**	.327**	.343**
OABW			.525**	.279**	-.017	.145*	.253**	.343**	.025	.349**
PV				.496**	-.089	.464**	.515**	.520''	.310**	.357**
BA					-.080	.389**	.361**	.380**	.227**	.214**
ACA						.021	.063	.017	.083	-.089

Note: BE=Brand equity, OABW= Organizational association and brand awareness, PV=Perceived value, PQ=Perceived quality, BA=Brand attitude, ACA=Acceptability of choice alternatives, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth.

This table 27 indicated that brand equity had significant correlations with perceived quality, perceived value and organization association combined to brand awareness. Similarly brand equity has significant correlation with quality of faculty, infrastructure and employability. Perceived quality has significant relationship with all program attributes. Advertisement did not have significant correlations with organizational association but with the rest of the brand dimensions. This relationship was significant in students groups but not in applicants and influencers. Significant

correlations among the brand dimensions and brand equity but less than .70 indicated the convergent and discriminant validity of the brand equity scale.

The table 27 also indicated that brand equity was significantly correlated with brand attitudes. These correlations further supported construct validity of brand equity constructs and its associated brand dimensions. Similarly brand attitudes were significantly correlated with all other brand dimensions and program attributes similar to the pattern of relationship among brand equity and dimensions. As the measures with the same concept are correlated, they have validity because they measured the extent to which a scale measure accurately represents the concept of interest (Hair et.al., 1998). Cross validation with acceptability of choice alternatives also supported construct validity as this construct did not have relationships with any of the measured brand equity constructs.

Comparison between the Factor Analyses of Applicants with Others

The influencers and applicants did not consider any brand dimensions as important factors in the structure of brand equity which students did. It appeared that brand dimensions will be created only after the students experienced significant level of brand exposures or in other words consumptions of the services. The applicants were concerned with practical curriculum which the students were not. As some research (Yoo & Donthu, 2001, 2002) indicated, brand image in terms of organizational association was clubbed together with brand awareness. The items loaded in the factor for program and media attributes and brand equity were consistent with influencers' study.

Brand Equity of Combined Data

This study included a separate factor analysis on the combined data collected from three different sample groups for study number 3 to 5. The differences in their results have been compared and identified. The combined factor result indicated the dimensions and structure of different brand equity constructs. The result will be useful to assess the brand equity of overall customers, viz. applicants, influencers and students.

Instruments and Measures for Combined Data

The most commonly extracted items loaded in the factor analyses on applicants, influencers and students were merged. Seventeen items on program and media attributes were commonly loaded (at least in two factor results) in all the three surveys viz. applicants, influencers and students. They were faculty (3 items), employability (3 items), infrastructure (4 items), word of mouth (4 items) and advertisement (3 items). Similarly, four items on brand equity were commonly loaded in at least two factor results. These twenty one items commonly loaded in the previous phases of study were used in the combined factor analysis. Although items for the brand dimension : perceived quality (4 items), perceived value (3 items), organizational association (3 items) and brand awareness (3 items) were not loaded commonly in the factor results they were included also in combined factor analysis in order to assess their positions in combined factor structure. Similarly five point schematic differential scales of brand attitudes were included in this study for testing construct validity of the brand equity measurement.

Table 28

Items included in Factor Analysis of Combined Data

Brand equity (BE)

1. I can recognize B-school X among other competing B-schools for MBA programs.
2. I would definitely recommend to others to make B-school X their first choice when considering studying MBA program.
3. MBA of B-school X is the best choice for MBA students.
4. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.

Quality of faculty (FAC)

5. B-school X has qualified faculty in its MBA program.
6. B-school X has professional faculty in its MBA program.
7. B-school X has competent faculty in its MBA program.

Infrastructure (INF)

8. B-school X has a good building for its MBA program.
9. B-school X has a well equipped library for its MBA program.
10. B-school X has good computer labs for its MBA program.
11. B-school X has good classrooms for its MBA program.

Employability (EMP)

12. B-school X creates opportunities for a highly paid job after MBA.
13. B-school X has a good placement of MBA graduates.
14. B-school X's MBA graduates have earned a good money.

Advertisement (AD)

15. MBA of B-school X is intensively advertised.
16. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.
17. The ad campaign for MBA of B-school X is seen frequently.

Word of mouth (WOM)

18. My friends strongly advised students to study MBA in B-school X.
19. My friends advocate more for MBA of B-school X than competing B-schools.
20. My relatives advocate more for MBA of B-school X than competing B-schools.
21. My relatives strongly advised students to study MBA in B-school X.

Brand Dimensions

Perceived quality (PQ)

1. B-school X offers very good quality MBA program.
2. B-school X offers MBA of consistent quality.
3. B-school X offers very reliable MBA.
4. B-school offers MBA with excellent features.

Perceived value (PV)

5. MBA from B-school X is good value for money.
6. I consider admitting into B-school X for MBA is a good decision.
7. Considering what students would pay for MBA of B-school X, they would get much more than their money's worth.

Organizational association (OA)

8. I trust MBA from B-school X.
9. The MBA from B-school X has credibility.
10. Getting admission in MBA of B-school X will be pride for the students.

Brand awareness (BAW)

11. When I think of MBA, B-school X is one of the B-schools that come to mind.
12. I can quickly recall the symbol or logo of B-school X.
13. Some characteristics of B-school X come quickly to my mind.

Criteria of Exploratory Factor Analysis of Combined Data

Altogether 670 responses were combined with representation of approximately 33% of the three sample groups. Exploratory factor analysis was carried out after checking the basic assumptions. Using iterative process factor analysis was carried out to identify the structure of the variables under the study. Twenty three items were extracted meeting the standard of producing factor result such as five times as many observation as the number of variables analyzed (670/23 = 29.1 times). The items were loaded in the final factor analysis after deletion of the items not meeting the standard assumptions. In such large sample size, factor loadings limits can be >.40 (Hair et. al., 1998). Normality of the data of the loaded variables was presented in the following table.

Table 29

Normality Test of the Items loaded in Factor Analysis of Combined Data

Items	Mean	Skewness	Kurtosis
BE1	4.3104	-1.346	3.186
BE2	4.1060	-1.179	1.065
BE3	4.1000	-1.041	.695
FAC1	3.9791	-.792	.806
FAC2	3.9642	-.728	.637
FAC3	3.8657	-.690	.720
INF2	3.6925	-.493	.400
INF3	3.7567	-.317	.007
INF4	3.8313	-.595	.418
EMP1	3.7881	-.538	.405
EMP2	3.7701	-.415	.246
EMP3	3.7537	-.274	.516
AD1	3.2030	-.075	-.551
AD2	3.0463	.047	-.449
AD3	3.0045	.042	-.790
WOM1	3.8119	-.667	-.325
WOM2	3.7015	-.571	-.263
WOM3	3.7343	-.580	-.404
WOM4	3.7060	-.555	-.251

PQ1	4.0030	-.862	.807
PQ2	3.9015	-.736	.830
PQ3	3.9582	-.719	.703
PQ4	3.8269	-.677	.591

Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement.

The threshold for normality test of +/- 1.000 for skewness and +/- 2.000 for kurtosis was met by almost all the variables except three in skewness. The variable deviating from normality was retained for conceptual requirement.

Common factor analysis was used with maximum likelihood extraction method. After screening the data matrix from basic assumptions and communalities, the scree test was used as guideline for extracting the desired number of factors. Oblique factor rotation with direct oblimin with the dafult delta (0) was used to make extracted factors correlated with each other (Hair et. al., 1998). After screening the data matrix from basic assumptions and communalities, the scree test was used as guideline for extracting the desired number of factors. Six factors have eigen values greater than 1.0 and one factor was derived for more elaborative structure which have eigen value of .945. The factor score coefficient matrix was displayed and the factors were sorted by size.

The final factor model satisfied all the required criteria. None of the anti-image correlations exceeded .70 in the factor solution. In addition the significant bartlett's test of sphericity (p=.000) indicated presence of adequate correlations among the variables. All the MSA exceeded .70. Overall (Kaiser-Meyer-Olkin's) MSA is .899. In this EFA the communalities of one variable is .398, four items were higher than .50, the rest have above .60. Cumulative variance explained was 76%. The table indicated the best structure after incorporating different assumptions and requirements.

Therefore, rotated factor solution was used in this research after several attempts and deletion of the variables from the analysis unless desired minimum number of factors was extracted. As suggested earlier oblique factor rotation with direct oblimin with the dafult delta (0) were used to make extracted factors correlated with each other (Hair et. al., 1998). Pattern matrix was examined for factor/ item loading. The factor score coefficient matrix was displayed and the factors were sorted by size.

Factor Analysis of Combined Data

Almost all factor loadings exceeded .60 without cross loading in seven different factors.

Table 30

Factor Analysis of Combined Data

Items	PQ	AD	WOM	INF	BE	FAC	EMP
PQ 1	.868	.009	.000	.015	.064	.034	-.048
PQ 2	.757	-.034	.004	-.047	-.085	-.005	.002
PQ 3	.656	.023	-.021	.004	-.145	-.066	-.030
PQ 4	.586	.019	.084	-.060	.005	-.110	-.025
AD 1	-.056	.848	-.011	-.060	.031	.023	-.013
AD 2	-.051	.816	.018	.038	-.021	-.061	-.011
AD 3	.087	.716	-.012	.016	.001	.027	.010
WOM 1	-.058	-.055	.903	.042	-.002	-.019	-.028
WOM 2	-.033	-.024	.883	-.007	.025	.033	-.001
WOM 3	.058	.048	.743	-.060	-.029	.002	-.023
WOM 4	.096	.068	.649	-.025	-.058	-.048	-.016
INF 1	-.035	.013	.031	-.946	-.044	.097	.032
INF 2	.042	-.026	.012	-.685	.067	-.069	-.031
INF 3	.034	.029	-.021	-.636	-.055	-.099	-.042
BE 1	.013	.021	.064	.018	-.917	-.011	.011
BE 2	.160	-.011	.140	.059	-.612	-.059	.013
BE 3	-.012	-.020	-.046	-.065	-.602	-.001	-.073
FAC 1	-.050	-.005	-.003	.018	-.045	-.907	.013

FAC 2	.044	-.013	-.009	-.003	.055	-.780	-.072
FAC 3	.072	.056	.042	-.082	-.039	-.688	.033
EMP 1	.017	-.026	.001	-.003	.018	.008	-.858
EMP 2	-.040	-.003	.005	.031	-.086	-.046	-.801
EMP 3	.053	.046	.039	-.039	.029	.024	-.655

Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement.

EFA result produced seven factors namely qualified faculty (three items), physical infrastructure (three items), and employability after graduation (three items) and brand equity (three items), word of mouth (four items) advertisement (three items). This factor loading included perceived quality (four items). The factor solution indicated unidimensionality of the items loaded on a single factor without cross loadings. The loaded factors and their items were mentioned below:

Table 31

Items loaded in Factor Results on Combined Data

Brand equity (BE)
1. I can recognize B-school X among other competing B-schools for MBA programs.
2. I would definitely recommend to others to make B-school X their first choice when considering studying MBA program.
3. MBA of B-school X is the best choice for MBA students.

Quality of faculty (FAC)
4. B-school X has qualified faculty in its MBA program.
5. B-school X has professional faculty in its MBA program.
6. B-school X has competent faculty in its MBA program.

Infrastructure (INF)
7. B-school X has a well equipped library for its MBA program.
8. B-school X has good computer labs for its MBA program.
9. B-school X has good classrooms for its MBA program.

Employability (EMP)
10. B-school X creates opportunities for a highly paid job after MBA.
11. B-school X has a good placement of MBA graduates.
12. B-school X's MBA graduates have earned a good money.

Advertisement (AD)
13. MBA of B-school X is intensively advertised.
14. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.
15. The ad campaign for MBA of B-school X is seen frequently.

Word of mouth (WOM)
16. My friends strongly advised students to study MBA in B-school X.

17. My friends advocate more for MBA of B-school X than competing B-schools.
18. My relatives advocate more for MBA of B-school X than competing B-schools.
19. My relatives strongly advised students to study MBA in B-school X.

Perceived quality (PQ)

20. B-school X offers very good quality MBA program.
21. B-school X offers MBA of consistent quality.
22. B-school X offers very reliable MBA.
23. B-school X offers MBA with excellent features.

There were reduction of one item each in brand equity and infrastructure from commonly loaded items. Consistency in factors extraction of faculty, employability, infrastructure, advertisement, word of mouth and brand equity confirm the existence of brand equity structure among the students, applicants and influencers alike. Extraction of only one factor of brand dimensions- perceived quality indicated the existence of one mediating variable to brand equity outcome.

Reliability Measurement in Combined Data

Summated scales were calculated for all the factors extracted in factor analysis and other factors relevant to brand dimensions and brand equity.

Table 32

Reliability Test Results on Combined Group

Factors	Number of Items	Cronbach's Alpha
Brand equity	3	.825
Employability	3	.837
Infrastructure	3	.818
Faculty	3	.866
Advertisement	3	.834
Word of mouth	4	.895
Perceived quality	4	.873
Perceived value	3	.763
Organizational association	3	.470
Brand awareness	3	.674
Brand attitudes	5	.919

All the factors extracted by the factor analysis have adequate internal consistency and reliability supporting content validity. Organization association and

brand awareness were discarded for further analysis because of lack of internal consistency in measuring the constructs.

Construct Validity Tests of the Latent Variables in Combined Group

In order to test whether extracted factors have construct validity, the correlation between the variables were compared. The following table presents the correlations.

Table 33

Construct Validity of the Scales used in Combined Data

	PQ	BA	PV	FAC	INF	EMP	AD	WOM
BE	.594**	.513**	.639''	.455**	.278**	.474**	.006	.520**
PQ		.546**	.700''	.577**	.424**	.562**	.172**	.454**
BA			.268''	.461**	.316**	.463**	.095*	.404**
PV				.499**	.350**	.557**	.100**	.516**

Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, BA=Brand attitudes, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement. *significant at p<.05, ** significant at p>.01.

This table 33 indicated that brand equity had significant correlations with perceived quality and perceived value. Similarly brand equity had significant correlation with quality of faculty, infrastructure and employability. Perceived quality had significant relationship with all program attributes. Advertisement did not have significant correlations with brand equity but with perceived quality. Significant correlations among the brand dimensions and brand equity but less than .70 indicated the convergent and discriminant validity of the brand equity scale.

The table 33 also indicated that brand equity was significantly correlated with brand attitudes. These correlations further supports construct validity of brand equity constructs and its associated brand dimensions. Similarly brand attitudes were significantly correlated with all other brand dimensions and program attributes similar to the pattern of relationship among brand equity and dimensions. As the measures

with the same concept are correlated, they have validity because they measured the extent to which a scale measure accurately represents the concept of interest (Hair et. al, 1998).

Comparison between the Factor Analyses of Combined Group with Others

The influencers and applicants did not consider any brand dimensions as important factors in the structure of brand equity which students did but in combined factor analysis one brand dimensions – perceived quality was loaded in the brand equity structure. This result might have been contributed by students groups or larger sample size. It appeared that overall sample considered perceived quality as important for creating of brand equity. The brand equity scales for combined groups comprised of 23 items loading three items each in brand equity, quality of faculty, infrastructure, employability and advertisement and four each in perceived quality and word of mouth.

Reliability and Validity of Developed Scale

The scale development research should finally ensure the construction of reliable and valid measures. This section of the research presented the process followed in establishing reliability and validity of the scales. The scales generated by factor analyses were tested for stability and internal consistency for assessing their reliability in measuring the expected constructs. Series of content validity, construct validity and nomological validity tests were carried out and the results were presented in this section. Since some of reliability and validity tests and their results were presented in each chapter of research results, they were briefly presented in this section. The other tests which were not covered in earlier chapters were presented here in detail.

Unidimensionality Test

Unidimensionality is the evidence that a single dimension or construct underlies a set of measure which was demonstrated when the observed variables of a dimension have acceptable fit on a single factor. Items loading highly (>.40) in larger sample size in the previous sections of the factors analyses were the indicators of unidimensionality. The unidimensionality was also indicated by summated scales consisted of items loading highly on a single factor but not on other factors. Therefore, the finalized scales for combined group and other individual groups have good unidimensionality.

Reliability Test

Reliability in terms of internal consistency among the variables in summated scales were tested through Cronbach's alphas and other diagnostic tests such as item to total correlation and inter-item correlation. In all phases of the study, the scales were finalized through extensive internal consistency tests. Those constructs not meeting Cronbach alpha threshold of >.70 were excluded for further analysis. The entire scales measuring program attributes such as quality of faculty, employability of graduates, infrastructure, curriculum, word of mouth and advertisement have sufficient reliability scores.

The scales for measuring brand awareness and organizational association were problematic in applicants and combined groups. Influencers group have problem in brand awareness. The main problem was on brand awareness which did not have sufficient alphas in all the sample groups except in student group in which it was grouped into organizational association. It may be because the sample groups did not have adequate amount of recognition and recall of the education institutions unless

they started to study in them. Therefore, scale measuring brand awareness appeared irrelevant in higher education.

Test Retest Tests

Thirty students volunteered to write their name in the questionnaires they filled in during students' survey. Half of them were from Whitehouse and other half were from KUSOM. They were contacted again after two months. The test retest was carried out to measure stability and reliability about their understanding of the items and consistency in evaluation of the brand equity constructs. The correlations between the two sets of observations were calculated to obtain the reliability coefficient. The followings were the results of correlation analysis on each items finalized for the student groups and the corresponding constructs observed at the two different times.

Table 34

Correlations of Constructs measured in two Different Times

Constructs	BE	PQ	PV	OABW	FAC	INF	EMP	WOM	AD
Correlations	.441**	.236	.279	.026	.611**	.484**	-.133	.400**	.408**

Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, OABW=organizational association and brand awareness, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement. ** Significant at p>.01.

The table 34 revealed that brand equity measurement have excellent reliability but not in the brand dimensions such as perceived quality, perceived value, organizational association with brand awareness. Similarly measures of employability of graduates also appeared to be less stable within the period among the students. This may be attributed to changes in circumstances that influence the sample respondents. In order to test validity of these changes, pair sample t tests were carried out in these constructs.

Table 35

Results of Pair Sample t Tests on the Constructs in Test Retest Test

Dimension	Mean	STD	t	p
BE1	3.982	.561	.792	.433
BE2	3.898	.707		
FAC1	3.785	.709	.429	.670
FAC2	3.825	.642		
INF1	3.791	.619	.909	.369
INF2	3.702	.632		
EMP1	3.535	.588	.822	.416
EMP2	3.410	.715		
AD1	2.865	.813	1.459	.152
AD2	2.658	.869		
WOM1	3.577	.747	1.344	.186
WOM2	3.386	.910		
PQ1	3.648	.644	.768	.447
PQ2	3.547	.733		
PV1	3.706	.585	.143	.887
PV2	3.690	.608		
OABW1	4.059	.544	2.619	.012*
OABW2	3.746	.566		

Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, OABW=organizational association and brand awareness, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement. 1=measured earlier and 2=measured later, *Significant at p>.05, ** Significant at p>.01.

All the tests had degree of freedom equal to 41. It appeared from the table that there were no differences between the mean scores of the constructs measured in two different times except in organizational association with brand awareness. This test reinforced the earlier findings that scales of measuring organizational association and brand awareness were problematic.

Content Validity

Content validity of the scale indicates the extent to which a scale measure accurately represents the concept of interest. The content validity was tested during the initial item pool generation by verifying the items with theoretical definition and constructs. The items pools were evaluated again by experts to verify the correspondence of the statements to the intended theoretical constructs. The content

validity was once again tested during unidimensionality tests whether the items were loaded in expected theoretical constructs. The summated scale confirms the content validity by verifying the correspondence of the variables included in a summated scale. All the constructs finalized for the scales to measure brand equity constructs had content validity.

Construct Validity

Construct validity exists when an instrument is tied to the concepts and theoretical assumptions they are employing. Both convergent validity and discriminant validity were tested in the last section of each result sections. Correlation matrixes among summated scales of constructs presented in earlier indicated both convergent validity and discriminant validity. Brand equity constructs were significantly correlated with others belonging to the same construct that purport to measure it but not >.70. Similar pattern were also indicated by the correlations with the scales of brand attitudes and purchase intentions. Insignificant correlations with acceptability of choice alternatives of all the brand equity constructs also supported the discriminant validity.

Nomological Validity

Nomological validity tests whether the constructs that the scale will measure have structural relationship as presented in the conceptual framework prepared based on theoretical review in figure no. 1. The following nomological networks among the constructs were proposed in the conceptual frame work. All the constructs extracted by earlier result sections under brand drivers contribute positively to the constructs extracted for the brand dimensions. Similarly, the constructs under brand dimensions contribute positively to brand equity outcome.

Structural equation model (SEM) defines the links among the constructs and assesses complex interrelated dependence relationship with the effects of measurement error. The SEM soft ware package AMOS 18 using maximum likelihood method examined each construct and its standardized loadings among the constructs in each of the sample groups separately.

Like any statistical methods, SEM features a number of assumptions. The assumptions of SEM were fully met or at least approximated ensuring trustworthy results. Good rules of thumb of 15 cases per predictor were met almost by all the SEM models prepared for different sample groups. All the endogenous variables were normally distributed and measured through Likert scale. Both of these conditions were met throughout the study.

Model fit were assessed in each model. All the constructs should be loaded highly on their corresponding construct ($p>0.05$ in all cases) and the t-values (critical ratios (C.R.) of those items should be greater than 2.0. The analysis of the squared multiple correlations (R^2) should meet the recommended criteria of 0.40.

Table 36

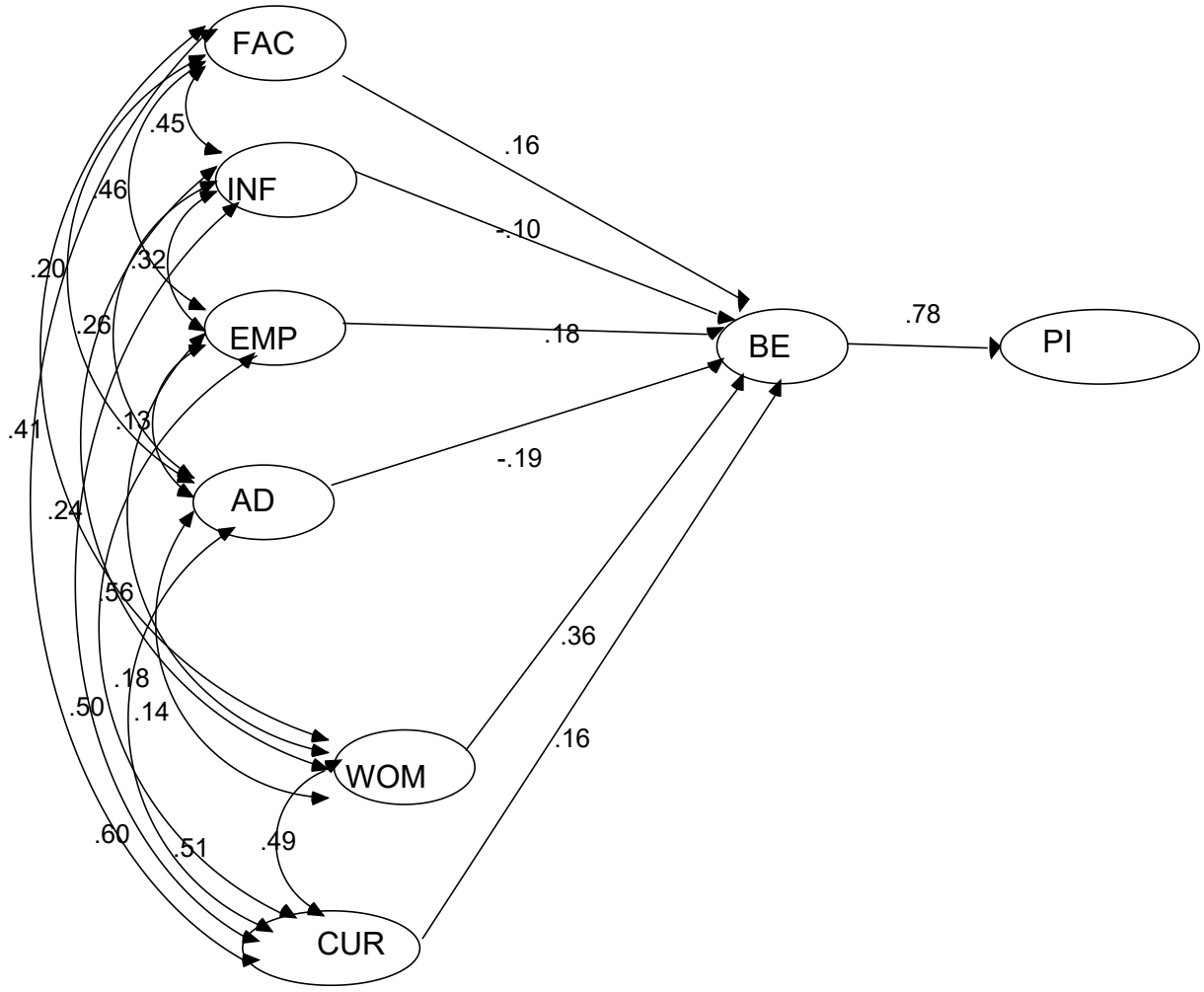
Model Fit Check of Different Structural Equation Model

Model	RMR	GFI	NFI	RMSEA	AGFI	CFI	R^2
Applicants	.033	.949	.929	.190	.693	.935	BE=.42 PI=.61
Influencers	.000	1.000	1.000	-	-	1.000	BE=.38
Students	.043	.927	.873	.227	.562	.877	OABW=.18 PQ=.48
Combined	.021	.980	.965	.132	.858	.967	BE=.33 PQ=.47 BE=.27
Acceptable range	.0 -0.05	>.9	>.9	<.1	>.8	>.9	=>.40

The table 36 indicated that SME model generated for combined data met almost all the criteria of model fit. However, the SME models generated for other

data sets such as applicants' survey, influencers' survey and students' survey have reasonable fit. Therefore, all these models are acceptable for nomological validity. The following sections presented the path analyses and their corresponding standard loadings and significance tests.

Figure 2. Structural Equation Model of Applicants' Survey



Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, BA=brand attitudes, PI = Purchase intentions, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, CUR=Curriculum.

Table 37

Standardized Regression loading and their Significance in Applicants' Survey

Causal Relationships	Estimate	S.E.	C.R.	P
BE<---FAC	0.164	0.077	2.467	0.014*
BE<---INF	-0.1	0.068	-1.631	0.103
BE<---EMP	0.181	0.079	2.752	0.006**
BE<---AD	-0.191	0.051	-3.628	***
BE<---WOM	0.361	0.059	5.622	***
BE<---CUR	0.157	0.093	2.179	0.029*
PI<---BE	0.782	0.043	18.801	***

Note: BE=Brand equity, PI = Purchase intentions, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, CUR=Curriculum. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The table 37 indicated that except infrastructure all other program attributes contributed positively to brand equity. The maximum contribution was from word of mouth (β = .36) followed by graduate employability (β = .18). However advertisement's contribution to brand equity is negative (β = - .19). Brand equity has greater contribution (β = .78) to purchase intentions i.e. intention to enrol the focal institution. Infrastructure did not contribute to brand equity because their causal relationship was not significant as indicated by their p value in table no. 36. Since brand dimensions were not loaded in exploratory factor analysis, they were not shown in structure equation model of applicants. Overall the scales for measuring brand equity of applicants have nomological validity with brand drivers comprising of faculty, employability, curriculum, and word of mouth directly contributed positively to brand equity outcomes. Brand equity formed thereby contributed significantly in purchase intensions. Similarly, table 37 indicated that all the brand drivers indicated in SME has significant correlations with each other.

Table 38

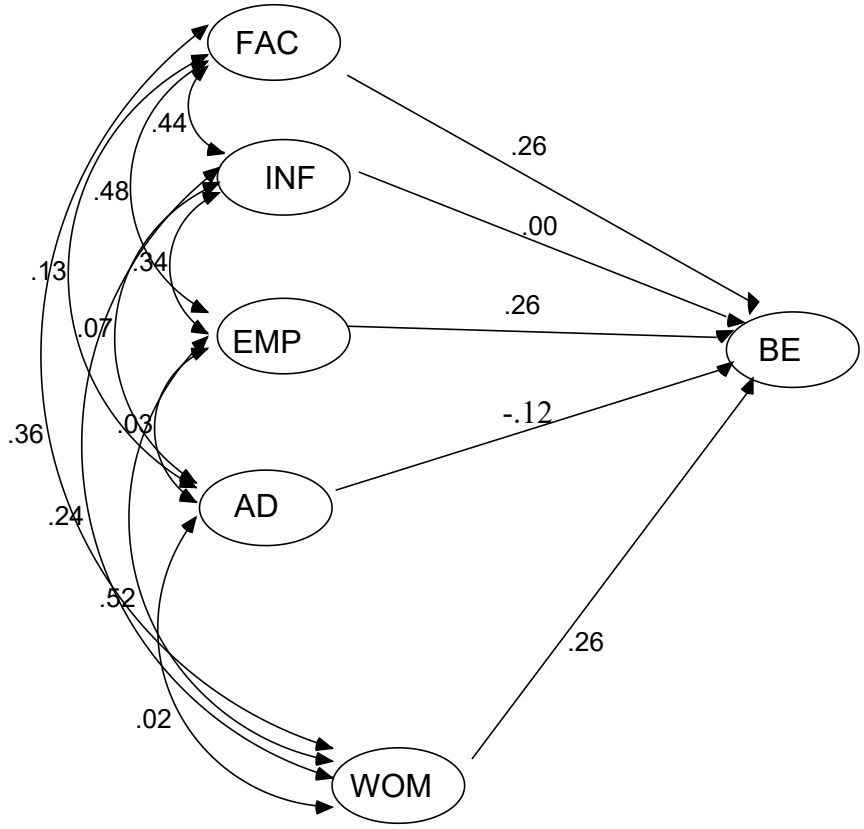
Correlations Estimates and their Significance in Applicants' Survey

Correlations	Estimate	S.E.	C.R.	P
FAC<-->INF	0.447	0.037	6.119	***
FAC<-->EMP	0.456	0.034	6.221	***
FAC<-->AD	0.203	0.04	2.985	0.003**
FAC<-->WOM	0.409	0.045	5.676	***
FAC<-->CUR	0.598	0.034	7.695	***
INF<-->EMP	0.319	0.034	4.563	***
INF<-->AD	0.257	0.042	3.729	***
INF<-->WOM	0.245	0.044	3.569	***
INF<-->CUR	0.503	0.034	6.741	***
EMP <-->AD	0.135	0.038	2.003	0.045*
EMP <-->WOM	0.56	0.045	7.327	***
EMP <-->CUR	0.51	0.032	6.81	***
AD<-->WOM	0.142	0.05	2.115	0.034*
AD<-->CUR	0.181	0.036	2.666	0.008**
WOM<-->CUR	0.493	0.041	6.629	***

Note: BE=Brand equity, PI = Purchase intentions, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, CUR=Curriculum. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The following was the SEM model of influencers' survey. Since there were no constructs extracted for brand dimensions in influencers' survey, this SEM model was prepared for showing relationship between brand drivers and brand equity. The followings were the results.

Figure 3. Structural Equation Model of Influencers' Survey



Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement.

Table 39

Standardized Regression loading and their Significance in Influencers' Survey

Causal relations	Estimate	S.E.	C.R.	P
BE<---FAC	0.26	0.065	4.017	***
BE<---INF	0.004	0.064	0.067	0.947
BE<---EMP	0.255	0.068	3.789	***
BE<---AD	-0.119	0.039	-2.231	0.026*
BE<---WOM	0.258	0.052	4.114	***

Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The model fit could not be calculated because this SME model did not have multiple exogenous variables. Nevertheless the table indicated that except infrastructure all the brand drivers such as faculty, employment and word of mouth had positively contributed to brand equity by almost same proportion (approximately β = .25). Advertisement had negative contribution to brand equity as in the case of applicants. This result is similar to applicants, because brand drivers which included faculty, employability, word of mouth contributed positively to brand equity but negatively by advertisements. Infrastructure did not have a significant contribution to brand equity. Similarly table 38 indicated that advertisement do not any correlations with any of the brand drivers, which indicated that advertisements have not been playing any role to inform about brand drivers.

Table 40

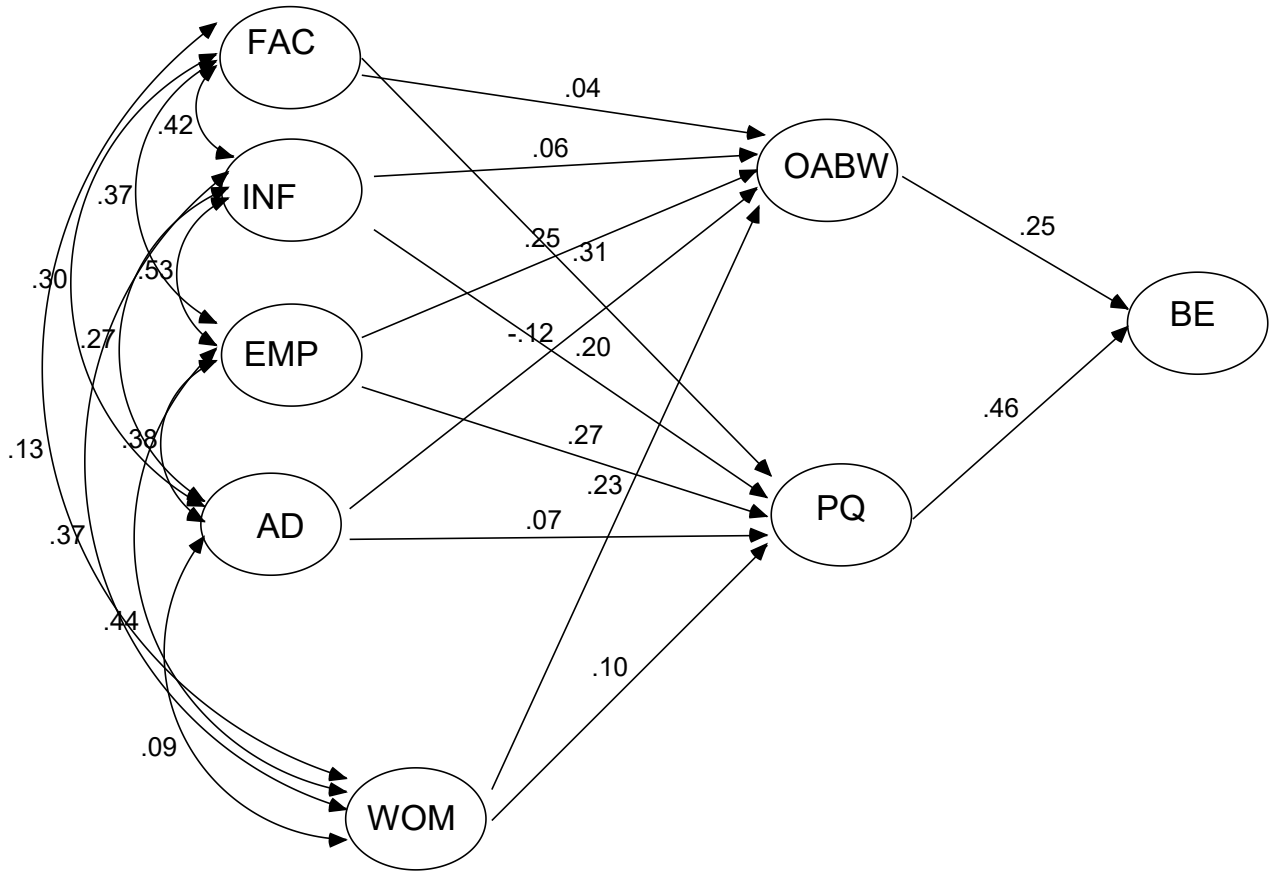
Correlations Estimates and their Significance in Influencers' Survey

Correlations	Estimate	S.E.	C.R.	P
FAC<-->INF	0.438	0.033	5.951	***
FAC<-->EMP	0.479	0.036	6.406	***
FAC<-->AD	0.126	0.045	1.849	0.064
FAC<-->WOM	0.355	0.042	4.964	***
INF<-->EMP	0.342	0.032	4.801	***
INF<-->AD	0.067	0.042	0.991	0.321
INF<-->WOM	0.236	0.038	3.408	***
EMP <-->AD	0.027	0.045	0.405	0.686
EMP <-->WOM	0.521	0.044	6.856	***
AD<-->WOM	0.022	0.054	0.319	0.75

Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

SEM in students had two model fit indicators crossing the threshold of acceptance and others were approximated. The path analysis indicated the following relationship.

Figure 4. Structural Equation Model of Students' Survey



Note: BE=Brand equity, PQ=Perceived quality, OABW=organizational association and brand awareness, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth.

Table 41

Standardized Regression loading and their Significance in Students' Survey

Causal Relationships	Estimate	S.E.	C.R.	P
OABW<---FAC	0.035	0.058	0.508	0.612
OABW <---INF	0.055	0.071	0.725	0.468
OABW <---EMP	0.245	0.083	3.063	0.002**
OABW <---AD	-0.115	0.05	-1.71	0.087
OABW <---WOM	0.227	0.054	3.271	0.001**
PQ<---FAC	0.31	0.05	5.609	***
PQ<---INF	0.204	0.062	3.358	***
PQ<---EMP	0.27	0.072	4.251	***
PQ<---AD	0.066	0.044	1.229	0.219
PQ<---WOM	0.101	0.047	1.825	0.068
BE<--- OABW	0.251	0.061	4.43	***
BE<---PQ	0.459	0.055	8.112	***

Note: BE=Brand equity, PQ=Perceived quality, OABW=organizational association and brand awareness, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The table 41 indicated hierarchical relationship among the brand drivers, brand dimensions and brand equity outcome as depicted in the conceptual framework where brand drivers contributed to brand dimensions and the brand dimensions contributed to brand equity outcome. The table revealed that organizational association and brand awareness were contributed by employability and word of mouth in almost same proportion. However, their squared multiple correlation (R^2) was 0.18 which is much lower than acceptable level. Perceived quality was contributed positively by faculty, infrastructure and employability in the range from β= .20 to .31. Then brand equity outcome was contributed positively by organizational association and brand awareness (β = .25) and perceived quality (β = .45). Perceived quality contributed more to the brand equity than organizational association and brand awareness. However, advertisement did not have significant contribution to any of brand dimensions. Overall this model proved nomological validity as expected in the conceptual framework. Except correlations between

advertisement and word of mouth, other correlations among brand drivers were significant as indicated by table 42.

Table 42

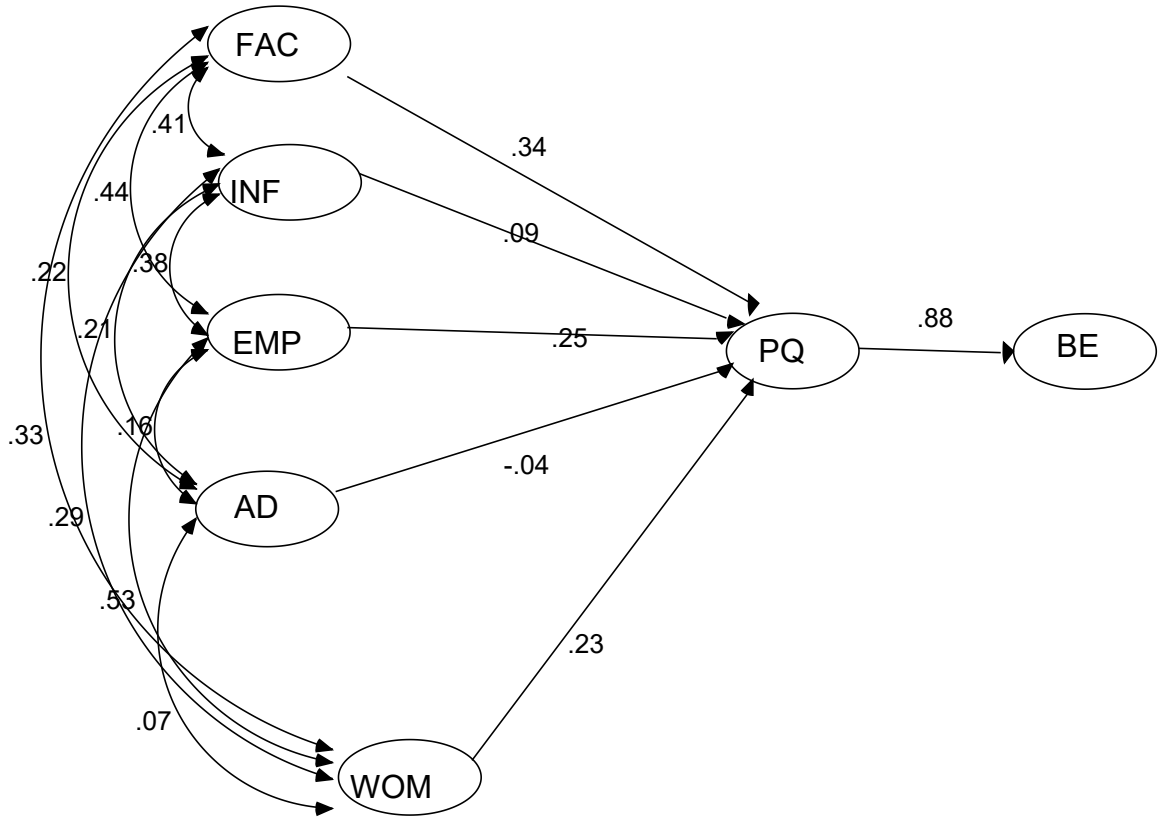
Correlations Estimates and their Significance in Students' Survey

Correlations	Estimate	S.E.	C.R.	P
FAC<-->INF	0.424	0.044	5.811	***
FAC<-->EMP	0.369	0.038	5.152	***
FAC<-->AD	0.302	0.053	4.303	***
FAC<-->WOM	0.134	0.048	1.972	0.049*
INF<-->EMP	0.528	0.037	6.961	***
INF<-->AD	0.271	0.047	3.904	***
INF<-->WOM	0.372	0.046	5.194	***
EMP <-->AD	0.381	0.043	5.305	***
EMP <-->WOM	0.438	0.042	5.98	***
AD<-->WOM	0.091	0.054	1.357	0.175

Note: FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The following was the SEM model of combined data which had met almost all fit indicators.

Figure 5. Structural Equation Model of Combined Data



Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

Table 43

Standardized Regression loading and their Significance in Combined Data

Causal Relationships	Estimate	S.E.	C.R.	P
PQ<---FAC	0.338	0.029	11.278	***
PQ<---INF	0.091	0.028	3.19	0.001**
PQ<---EMP	0.253	0.033	7.916	***
PQ<---AD	-0.035	0.021	-1.371	0.17
PQ<---WOM	0.232	0.024	7.741	***
BE<---PQ	0.883	0.051	18.397	***

Note: BE=Brand equity, PQ=Perceived quality, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

The table 43 indicated that except advertisement all the brand drivers contributed positively to perceived quality. The highest contributor was faculty (β = .33) and followed by employability (β = .25) and word of mouth (β = .23). Infrastructure contributed very less (β = .09) Perceived quality as brand dimension contributed highly to brand equity (β = .88). This result indicated perfect nomological validity of brand equity scales in terms of the relationship among brand drivers to brand dimension and then to brand equity outcome. In addition table 38 indicated that correlations among the brand drivers were significant except in case of correlations between advertisement and word of mouth.

Table 44

Correlations Estimates and their Significance in Combined Data

Correlations	Estimate	S.E.	C.R.	P
FAC<-->INF	0.412	0.023	9.845	***
FAC<-->EMP	0.44	0.023	10.418	***
FAC<-->AD	0.22	0.027	5.565	***
FAC<-->WOM	0.329	0.028	8.087	***
INF<-->EMP	0.378	0.022	9.144	***
INF<-->AD	0.206	0.026	5.21	***
INF<-->WOM	0.293	0.027	7.276	***
EMP <-->AD	0.16	0.026	4.077	***
EMP <-->WOM	0.53	0.029	12.115	***
AD<-->WOM	0.069	0.032	1.789	0.074

Note: FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth. *significant at p<.05, ** significant at p>.01, *** significant at p>.001.

Nomological validity assessment indicated two types of construct validity. Brand equity structure in case of applicants and influencers who do not have experienced education program do not contain brand dimensions rather the brand drivers directly contributed to brand equity outcomes. In contrary the current students who have had the experiences with the education program have hierarchical brand

equity structure as depicted by their exploratory factor analysis conforming to the conceptual model of the brand equity model. However, the SME of combined group conforms the same conceptual model but with only one brand dimension i.e. perceived quality. Elimination of the construct on organizational association and brand awareness during test retest reliability test also confirmed the existence of only one brand dimensions. This result also supported nomological validity. Therefore, it can be concluded that the final scale for measuring the brand equity is faculty, infrastructure, employability, and word of mouth as brand drivers, perceived quality as brand dimension, and brand equity outcome. This scale is reliable and valid as supported by all the tests in all the three sample groups. The brand equity structure consists of brand drivers of four constructs namely faculty, infrastructure, employability, and word of mouth contributing positively to brand dimension (perceived quality), and perceived quality as brand dimension contributing positively to brand equity outcome.

Opinion Leader's Survey

An opinion leaders' survey was carried in order to supplement the validity of the research findings. The respondents were academic policy makers, educationists, administrators, executives and faculties who were involved in delivery and management of MBA programs. The objective of this study was to verify whether they consider the brand equity constructs and their structure similar to the customers of business schools viz. applicants, their influencers and current students. Therefore the survey instrument that was used in finalized was replicated in this phase of study.

Instruments and Measures for Opinion Leaders' Survey

The above mentioned 43 items were scaled in five point likert type scale anchoring: 1 for strongly disagree and 5 for strongly agree. They were included in a

questionnaire. The questionnaire also contained biographic data of the professors and education administrators. The respondents were requested to read the statements carefully and to give their opinion. They were told that there were no right and wrong answers.

Sample Profile of Opinion Leaders' Survey

Sixty questionnaires were distributed to the potential respondents of mainly four business schools. Fifty two questionnaires were received for the data analysis. The survey was on the sample faculty members selected based on purposive sampling method in each school.

Among the sample respondents in this study 55% evaluated KUSOM, about 15 % each evaluated ACE and APEX, and about 11% evaluated Whitehouse. Among them 53.9% were involved in teaching and management of MBA, 21% in EMBA, about 15% in other master and bachelor level education. Overwhelmingly they were male (92.3%). Altogether 48.1% of the respondents were between 21 to 40 years of age and another 34.6% were in between 41 to 50 years of age. Almost 33% of the respondents were involved in teaching and management at KUSOM. Similarly, 21.2% were involved in Ace and 17.3% in Apex. The rests were involved in Whitehouse and other colleges and schools. Among the respondents, 34.6% were lecturers. 30% were professors and associate professors, and 15.4% were assistant professors. About 50% of the respondents were holding administrative position in their schools and colleges such as dean, director, principal, head of departments, and coordinator of the programs.

Assumptions for Factor Analysis of Opinion Leaders' Survey

The first important consideration for EFA was sample size which was 52 in this case. Factor analyses were carried out using iterative process. Fourteen items

were extracted out of initial 43 items because they met required assumptions and criteria for factor analysis. The sample size met minimum absolute sample size of 50 observations (Hitkin, 1998). Nevertheless, this factor analysis should not necessarily meet all the standards because it was carried out for supplementing validity of the results of previous surveys. A factor loading of .60 was considered in this factor result due to smaller sample size (Hair et. al., 1998).

All the variables included in factor analysis met normality assumption of +/- 1.0 skewness and +/- 2.0 kustosis except three variables on brand equity. The three variables were included in factor analysis in order to maintain conceptual requirement. After running several rounds of factor analyses, the final solution met all the fit criteria. The following table presented the normality of the scores of the items extracted and used in final factor analysis.

Table 45

Normality Test of the Items used for Factor Analysis of Opinion Leaders' Survey

Items	Mean	Skewness	Kurtosis
BE 1	4.4231	-1.991	4.382
BE 2	4.4423	-1.607	2.033
BE 3	4.2885	-1.028	.534
FAC 1	4.0385	-.648	-.121
FAC 2	4.0000	-.761	.232
FAC 3	4.0385	-.648	-.121
EMP 1	4.0192	-.632	-.064
EMP 2	4.0769	-.429	-.072
AD 1	3.0962	-.061	-1.130
AD 2	2.4808	.490	-1.011
AD 3	2.3846	.478	-.934
WOM 1	3.6731	-.375	-.428
WOM 2	3.6923	-.433	-.168
WOM 3	3.8462	-.294	-.498

Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth.

Criteria of Exploratory Factor Analysis of Opinion Leaders' Survey

Several criteria were used in determining the number of factors to extract from raw data set. Maximum likelihood extraction method was used for normally distributed data set. The latent root was used as guideline for extraction of number of factors. The eigen values greater than 1.0 were used. Scree plot was tried to extract predetermined number of factors based on research objectives and prior research but it did not produce satisfactory results.

There should be sufficient correlations in the data matrix to justify the application of factor analysis. The bartlett's test of sphericity was significant (p=.000 approximate chi square = 440.79 df = 91), which indicated the presence of correlations among the variables. There were only five variables which had greater than .50 MSAs which violated assumptions but were not deleted from factor analysis, because sample size just crossed the minimum threshold. However, overall Kaiser-Meyer-Olkin's MSA was .755. Except MSA of individual variables, all the criteria were met supporting the fact that the data set was suitable for factor analysis.

A variable's communality is the estimate of its shared or common variance (correlation) with other variables in the analysis. In this EFA except two, all the variables had communalities of above .60 in the final factor solutions. In this EFA five factors were extracted with cumulative variance explained 83.2%. Therefore, the factor result was derived meeting majority of assumptions criteria.

Factor Analysis of Opinion Leaders' Survey

Meeting the above mentioned criteria for running factor analysis, the final factor result was produced. The entire underlined factor loading exceeded .60 in five

different factors. Factor pattern matrix was used to evaluate the loadings in oblique rotation. There were no cross loadings in the matrix as indicated in the table 46.

Table 46

Factor Result of Opinion Leaders' Survey

Items	WOM	BE	AD	FAC	EMP
WOM 1	.995	-.028	.010	.079	-.053
WOM 2	.764	.045	-.009	-.023	.079
WOM 3	.645	.050	.019	-.194	.111
BE 1	-.045	.944	.021	-.046	.078
BE 2	.019	.771	-.040	-.048	.092
BE 3	.034	.694	-.007	.048	-.118
AD 1	.084	-.008	.897	.013	.030
AD 2	.028	.020	.879	.050	-.059
AD 3	-.091	-.023	.735	-.051	.027
FAC 1	.121	-.076	.012	-.978	-.141
FAC 2	-.114	.072	-.041	-.825	.057
FAC 3	.094	.111	.085	-.701	.232
EMP 1	.075	.025	.010	.003	.865
EMP 2	.010	-.026	-.003	.005	.789

Note: BE=Brand equity, FAC=Faculty, INF=Infrastructure, EMP=Employability, AD=Advertisement, WOM=Word of mouth.

EFA result produced five factors namely qualified faculty (three items), employability after graduation (two items), brand equity outcome (three items), word of mouth (three items) and advertisement (three items). Other constructs could not be extracted despite several attempts.

Table 47

Items loaded in Factor Results of Opinion Leader's Survey

Faculty (FAC)
1. B-school X has qualified faculty in its MBA program.
2. B-school X has professional faculty in its MBA program.

3. B-school X has competent faculty in its MBA program.

Employability (EMP)

4. B-school X creates opportunities for a highly paid job after MBA.
5. B-school X has a good placement of MBA graduates.

Brand equity (BE)

6. I can recognize B-school X amongst other competing B-schools for MBA program.
7. I would definitely recommend students to make B-school X their first choice when considering studying MBA program.
8. MBA of B-school X is the best choice for MBA students among the competing B-schools.

Advertisement (AD)

9. MBA of Ace is intensively advertised.
10. The ad campaign of MBA of Ace seems very expensive compared to the campaigns of competing B-schools.
11. The ad campaign for MBA of Ace is seen frequently.

Word of mouth (WOM)

12. My friends advocate more for MBA of Ace than competing B-schools.
13. My relatives advocate more for MBA of Ace than competing B-schools.
14. My relatives strongly advised students to study MBA in Ace.

This table 47 indicated that when the faculty and education policy makers and administrators compare a focal business school over its competitors, they considered five main factors which determine their strong preference of one school over other competing schools. This result was partially consistent with the results so far derived in the previous study. One item each in employability and word of mouth was not loaded in this factor analysis.

Reliability Measurement in Opinion Leaders' Survey

Summated scales were calculated by combining the items loaded into a single factor by averaging the score of the variables in order to carry out further analysis. The summated scale tests a form of reliability in terms of internal consistency among the variables in a scale. This internal consistency analysis also supports unidimensionality of the variables loaded highly in single factors as well as content

validity as the items belongs to a single factor not others and they have internal consistency.

A series of diagnostic measures were carried out in the loaded factors. The items to total correlations, the inter-item correlations, and Cronbach's alpha were calculated through SPSS software.

The table 48 indicated the reliability measures of the factors loaded in the factor result.

Table 48

Reliability Test Results on Opinion Leaders' Survey

Factors	Number of Items	Cronbach's Alpha
Brand equity	3	.850
Employability	2	.830
Faculty	3	.902
Word of mouth	3	.888
Advertisement	3	.874
Perceived quality	4	.914
Perceived value	3	.857
Organizational Association	3	.856
Brand awareness	3	.758
Brand attitude	5	.930
Acceptability of choice alternative	3	.907

All the items loaded into the construct met the criteria of reliability. This phase of study indicated the existence of brand equity structure comprising of four brand drivers namely; quality of faculty, graduate employability, advertisement and word of mouth and brand equity outcomes with corresponding items with good reliability. However, brand dimensions were not extracted in this study as in other surveys. Therefore, reliability of these brand dimensions, brand attitude and acceptability of choice alternatives were also analyzed in the table 48. This table indicated that all the constructs on brand dimensions and the constructs used for cross validation were reliable.

Construct Validity Tests of the Latent Variables in Opinion Leaders' Survey

In order to test whether extracted factors have construct validity, the correlation between the variables were compared. The following table presents the correlations.

Table 49

Construct Validity of the Sales used in Opinion Leaders' Survey

	PQ	PV	OA	BW	BA	ACA	FAC	EMP	AD	WOM
BE	.424**	.396**	.444**	.235	.574**	-.291*	.329*	.214	-.229	.272
PQ		.735**	.741**	.622**	.542**	-.142	.662**	.639**	.192	.487**
PV			.761**	.551**	.479**	-.120	.568**	.557**	-.087	.410**
OA				.632**	.482**	-.239	.600**	.533**	-.004	.440**
BW					.289*	-.088	.435**	.570**	.020	.302*
BA						-.368**	-.358**	-.299*	.180	-.303*
ACA							-.022	-.051	.146	.014

Note: BE=Brand equity, PQ=Perceived quality, PV=perceived value, BW=Brand awareness, BA=brand attitudes, PI = Purchase intentions, FAC=Faculty, INF=Infrastructure, EMP=Employability, WOM=Word of mouth, AD=Advertisement, ACA=Acceptability of choice alternatives. *significant at p<.05, ** significant at p>.01.

This table 49 indicated that brand equity had significant correlations with perceived quality, perceived value and organization association but not with brand awareness. This is an interesting finding that opinion leaders considered that merely being aware of business school do not lead to create brand equity. Similarly brand equity did not have significant correlation with brand drivers except quality of faculty. This is also an interesting finding which is in contrary to earlier results. All brand dimensions have significant relationship with all brand drivers except with advertisement. This finding on insignificant relationship of brand dimensions with advertisement is consistent with earlier results. Significant correlations among the brand dimensions and brand equity but less than .70 indicated the convergent and discriminant validity of the brand equity scale. However, discriminant validity could

not be established among three brand dimensions; perceived quality, perceived value and organizational association because all of them have correlations greater than .70.

The table 49 indicated that brand equity is significantly correlated with brand attitudes. These correlations further supported construct validity of brand equity constructs and its associated brand dimensions. Similarly brand attitudes were significantly correlated with all brand drivers. As the measures with the same concept are correlated, they have validity because they measured the extent to which a scale measure accurately represents the concept of interest (Hair et. al., 1998). Cross validation with acceptability of choice alternatives also supported construct validity as this construct either have insignificant or negative correlations with the measured brand equity constructs.

Supplementary to Validity of the Overall Results

Extraction of five factors namely; brand equity and brand drivers (Quality of faculty, employability, advertisement and word of mouth) were consistent with results of the combined data analysis. Similarly except two items all the items loadings were also consistent. This result supported content validity. They were also consistent with theoretical definitions and constructs. Loading of items in single constructs also indicated the content validity.

However, there were slight deviations in brand equity outcome because brand equity outcome did not have positive correlations with brand awareness, employability and word of mouth as in the case of results of earlier surveys. This result suggested that faculty and education administrators thought brand equity structure differently from the actual customers namely, applicants, their influencers and current students. However, brand equity outcome measure having significant correlations with brand dimensions, brand driver (quality of faculty only), brand

attitude supported construct validity. This construct validity is consistent with the results of other survey findings in terms of relationship between brand driver and brand dimension and then brand dimension and brand equity. Therefore, it can be concluded that opinion leaders' survey supplemented the validity of the study results to a greater extent.

Generalizability

One of the most direct methods of validating the results of factor analysis is to assess the replicability of the results with a separate sample (Hair et. al., 1998). The study has been replicated in different sample groups which produced very much similar results. This result indicated generalizability of the constructs and their structure among sample groups for MBA. The subject consists of four different business schools most probably having weaker and stronger brand. Therefore the constructs identified through these analyses reflected the generalizability of the measures in MBA category of education program among the business schools in Nepal. The brand equity constructs can be replicated in other education programs in the future research to establish its generalizability.

CHAPTER V

SUMMARY OF FINDINGS, CONCULSION AND IMPLICATIONS

Brand equity refers to applicants', influencers' and students' favorable perceptions, preference and attachment to a focal higher education institution over its competing institutions. Evaluation of brand equity is necessary for formulating brand development strategies for their survival and growth of the higher education institutions during the period of growing marketization and competition. Although the need of research on brand of higher education institutions was highly emphasized in several educational research literatures, constructs of brand equity have not been studied yet. In order to fulfill the gaps in literature of brand equity in higher education this research was carried out to explore brand equity constructs and its composition and structure in order to help higher education institutions to be competitive in its domestic and international market. Besides academic interest this study would help higher education institutions in evaluating their brand strengths.

By exploring the constructs this research identified the facets and dimensions of brand equity in higher education. Therefore focus of this study was to develop standardized constructs useful for brand management. Although brand in this context was the name of a particular institution, facets of brand equity were the associated aspects that the institutions offer to the market such as quality of infrastructure and faculty, and graduate employability. In addition, the institutions promote their programs through advertisement in different media, and the students' relatives and friends advocate about programs and institutions - word of mouth. They are the brand drivers which influence brand dimensions – brand awareness, perceived quality, perceived value and organizational association. The brand dimensions are the

components that students perceive that a focal institution is more familiar to them, has higher quality and value, and more trustworthy and credible than competing institutions for the same education program. Positive and favorable perception on a focal institution will create positive response of the students and influencers in terms of greater attachment and commitments, and willingness to recommend others to study in the institution. This construct is measured through brand equity outcome. Since this study measured brand equity, its dimensions and brand drivers from the perspective of applicants and students who are direct purchasers of the programs, this study used approach of customer -based brand equity (CBBE). The study on influencers was important because parents might have been the main purchasers of the program or they along with friends strongly influence students' choice decisions.

Brand loyalty as one of the brand dimensions are commonly used in different brand research and literature. This study did not use brand loyalty construct because higher education program is not for repurchase as in the case of consumer goods. Instead this study used brand equity construct because brand equity outcome also measures brand response in terms of intention to recommend others to buy the same product.

This study answered the main research question "what are the factors that determine brand equity in higher education institutions?" In order to answer this broad question, this study identified the statements and clues used to evaluate a particular higher education institution over other competing institutions. Different groups of (items) statements loaded into a particular construct in the exploratory factor analyses were tested for reliability to ensure whether they consistently measure the properties of the particular constructs. Similarly content and construct validity were tested for each constructs and corresponding items loaded into them. The

identified constructs were cross validated with similar constructs measuring same or similar theme. The causal relationships among the constructs were tested for nomological validity through path diagram using structural equation model to ensure that their relationship confirmed to the theory of brand equity. This study also explored the structure and compositions of brand equity in higher education.

This study used theoretical framework comprising of brand management, service marketing, consumer behavior and choice theory. Brand of higher education is related with service marketing where brand name is the main indicator of whole quality and choice criteria. Purchasing higher education program needs high involvement and risky decision making process. The positive exposures and experiences with the services of the institutions develop brand value among the students. Therefore, applicants should have different level of brand knowledge in comparison to influencers and students because of different level of exposures and experiences. This study is limited to study of brands of MBA academic programs offered by four business schools in Kathmandu Nepal.

An inductive approach was used for item generation using in-depth interviews and focus group discussions with the MBA applicants and students to find out criteria they used to evaluate business schools to make choice decisions. Twenty seven items or statements related with program attributes and promotion were generated in consistent with their theoretical definitions through content analysis of the responses of 78 participants. In addition deductive approach generated 16 items from several brand research articles to measure additional constructs on advertisement, word of mouth, brand dimensions and brand equity. Altogether 43 items were used in pilot study on 94 MBA students. An exploratory factor analysis was carried out after meeting several statistical assumptions using SPSS 16 software package and it

generated four latent factors with the loading of 15 items. They were quality of faculty (three items), employability of graduates (four items), quality of infrastructure (five items) and brand equity (three items). All the generated constructs have good reliability alphas indicating consistency in measuring the constructs by the loaded items.

A survey on MBA applicants was carried out by repeating all the 43 items plus 22 items on brand dimensions - perceived quality, perceived value and organizational association, and brand attitude and purchase intentions. Exploratory factor analysis was carried out on the responses from 226 applicants. Seven factors were generated namely quality of faculty, infrastructure, employability and brand equity consistent with earlier findings in addition to word of mouth, advertisement and curriculum. All these factors have sufficient reliability alphas. Perceived quality, perceived value, brand attitudes and purchase intentions also had sufficient reliability alphas. All the extracted factors had sufficient convergent, discriminant and nomological validity.

Twenty six items were replicated in the survey of influencers. The influencers were parents, brothers, sisters and other relatives and friends who advised the applicants and students to select a particular business school over other business schools. Exploratory factor analysis was carried out in the data generated from 221 respondents. Six factors were extracted excluding curriculum with some minor changes in the number of item loadings. Brand equity had four items instead of three in applicants' survey. Similarly, qualified faculty, good building, good open area and graduates achieving higher career positions were loaded in the factor structure which was not in the case of applicants indicating that influencers used more elaborative indicators than applicants.

All the extracted constructs had sufficient reliability alphas. Perceived quality, perceived value and brand attitude had acceptable reliability indicators. However, organizational association and brand awareness were neither extracted in the factor analysis nor had acceptable reliability alphas. Brand attitude had significant correlation with brand equity, brand dimensions and brand drivers indicating construct validity. The constructs extracted also indicated acceptable level of nomological validity with valid structural relationship among brand drivers and brand equity outcome.

A survey on MBA students was carried out replicating the same 26 items and four additional items for measuring acceptability of choice alternatives on 223 MBA students with almost equal representation of four business schools. Eight factors were generated namely quality of faculty, infrastructure, graduate employability, advertisement, word of mouth and brand equity plus two additional factors - perceived quality and organizational association clubbed together with brand awareness. Extraction of two brand dimensions in this factor analysis indicated that full-fledged structure with inclusion of multi dimensional brand equity structure was developed only after the full exposures to and experiences with the education services and the institutions. Thirty one items were loaded in the brand equity structure. All the generated latent constructs had sufficient reliability alphas. The constructs were significantly correlated with brand attitudes. These variables had good nomological validity. Nomological validity test indicated that brand dimensions have positively contributed to brand equity, and brand drivers particularly by faculty, employability, infrastructure and word of mouth positively influenced the brand dimensions. Perceived quality was contributed positively by faculty, infrastructures and

employability, and organizational association with brand awareness was contributed positively by word of mouth and employability.

Since the brand equity of higher education was determined by applicants, influencers and students jointly a combined factor analysis was carried out on data of 670 respondents representing almost 33% of each sample groups. Seven factors were extracted which is consistent with earlier factor results. Twenty three item - scale were produced. All the generated factors have sufficient reliability alphas. They were cross validated with brand attitude which was also significant with all the brand equity and brand dimensions. The followings are the main findings in line with the research questions.

a. The criteria used for determining awareness, association, preferences of a particular higher education institution over competing institutions for the education program are quality of faculty, quality of infrastructure, graduates employability, advertisement and word of mouth which contribute in perceived quality ultimately leading to brand equity outcome. They are presented in table 50.

Table 50

Composition of Brand Equity Constructs in Higher Education

Variables and Statements
Brand Drivers
Quality of faculty
X has qualified faculty in its MBA program.
X has professional faculty in its MBA program.
X has competent faculty in its MBA program.
Quality of infrastructure
X has a good building for its MBA program.
X has a well equipped library for its MBA program.
X has good computer labs for its MBA program.
X has good classrooms for its MBA program.
Graduates' employability
X creates opportunities for a highly paid job after MBA.
X has a good placement of MBA graduates.
X's MBA graduates have earned good money.

X's MBA graduates achieved higher career positions.
Advertisement
MBA of X is intensively advertised.
The ad campaign of MBA of X seems very expensive compared to the campaigns of competing B-schools.
The ad campaign for MBA of X is seen frequently.
Word of mouth
My friends strongly advised me to study MBA in X.
My friends advocate more for MBA of X than competing B-schools.
My relatives advocate more for MBA of X than competing B-schools.
My relatives strongly advised me to study MBA in X.
Perceived quality - Brand dimension
X offers very good quality MBA program.
X offers MBA of consistent quality.
X offers very reliable MBA.
X offers MBA with excellent features.
Brand Equity
I can recognize X among other competing B-schools for MBA programs.
I would definitely recommend to others to make X their first choice when considering studying MBA program.
MBA of X is the best choice for me among the competing B-schools.
Even if another B-school is not different from X for MBA in any way, it seems smarter to study MBA in X.

Note: "X" represents the name of B-school that is to be evaluated.

b. As listed in the above mentioned table, 26 statements or clues explain the seven criteria associated with the brand equity construct in the higher education program.

c. All the 26 statements and their corresponding factors have adequate reliabilities and validities which consistently measure the intended theoretical construct.

d. All the variables have causal relationship as expected in the brand literature namely brand drivers determine brand dimension which influence brand equity outcomes. However brand awareness; organizational association and perceived value are not the components of brand dimension in the higher education program.

e. There are sufficient levels of correlations of the brand equity outcome and its components with brand attitudes and choice intentions, but not with acceptability of

choice alternatives. Such types of relationship provided evidence of cross validity of the brand equity construct.

f. The above mentioned findings are consistent with brand equity construct measured among students' parents, relatives, friends and other stakeholders of the higher education program.

g. Similarly, the brand equity construct explored by this study is similar to the perceptions of academic leaders such as faculties, academicians, administrators and policy makers of higher education.

In summary this research indicated that in the brand equity composition, quality of faculty, infrastructure, employability, advertisement and word of mouth are the components of brand driver, perceived quality as brand dimension and brand equity outcome. Among brand drivers, advertisement does not influence perceived quality and brand equity outcome positively. Organization association and brand awareness do not appear to be components in the brand equity structure for applicants, influencers and combined group as well as students due to lack of stability during test retest reliability tests. This result indicated that the customers and the stakeholders were concerned with quality of programs alone but do not trust business schools as credible and prestigious. The overall finding of this study was partially supported by opinion leaders' survey carried out to supplement the validity of the findings.

Conclusion

This study explored the criteria and corresponding statements or items representing the criteria that students and their influencers used for evaluating one institution over competing institutions providing same academic program with reference to MBA academic program in Nepal. The seven phase study confirmed reliabilities and validities of the identified factors. Series of tests confirmed reliability

and validity of the brand equity construct, structure and compositions. The tests also indicated that scale, factors and corresponding items (statements or clues) used in this study were reliable and valid indicators of brand drivers, brand dimensions and brand equity outcome across all the sample groups. The items and their corresponding factors, and their structural relationship corroborate with the proposed theoretical framework. The followings are the main conclusion of this study.

a. The brand drivers are quality of faculty, quality of infrastructure, graduates employability, advertisement and word of mouth which are criteria that students, applicants and influencers use for determining awareness, association, and preferences of a particular higher education institution over competing institutions for the education program.

b. Altogether 18 statements or clues explain the brand drivers and four statements each explain perceived quality and brand equity outcome in the higher education program as indicated in table 50.

c. For applicants, among brand drivers word of mouth is the highest determinant of brand equity followed by graduate employability, quality of curriculum and faculty. Intensive advertisement negatively influences the brand equity and where as quality of infrastructure does not contribute to it at all. Brand equity outcome significantly increase the intention to get admission into the focal higher education institution for the program.

e. In case of influencers, brand equity is positively affected by quality of faculty, word of mouth and graduate employability almost equally. However, intensity of advertisement negatively affects the brand equity outcome.

f. For students, graduate employability and word of mouth positively contribute to organizational image and awareness of the program almost equally. Similarly quality

of faculty contributes to perceived quality followed by graduate employability and quality of infrastructure respectively. Intensive advertisement does not contribute to both of the brand dimensions. Among brand dimensions contribution of perceived quality to brand equity outcome is almost double of organizational associations and brand awareness.

g. When all the sample groups are combined, quality of faculty is the greatest contributor to perceived quality followed by graduate employability and word of mouth respectively. Quality of infrastructure and advertisement do not have any effects on perceived quality. Perceived quality contributes significantly to brand equity outcome.

h. Overall, perceived quality alone as brand dimension affect positively brand equity outcome in the higher education program. Perceived quality is contributed positively by quality of faculty, graduate employability and word of mouth. Although infrastructure and advertisement are the parts of brand equity construct, intensive advertisement could be harmful to perceived quality and brand equity outcome.

i. Brand awareness, perceived value, and organizational awareness are not the brand dimensions in higher education program in contrary to brand literature as evidenced the factor analysis and reliability tests.

Discussion

The seven phase study confirmed reliabilities and validities of the identified factors which were consistent with many of research findings on choice criteria of higher education (e.g. Ford, Joseph & Josheph, 1999; Ho & Hung, 2008). The following section presents detail discussion on findings and conclusion.

Brand Drivers

The brand drivers identified in this study are quality of infrastructure, quality of faculty, graduates' employability, advertisement and word of mouth. Each of the constructs was measured by three variables (items) except word of mouth by four items. The students and the influencers considered them as important factors to consider a focal institution as the best and worthy to be studied in. This result is consistent with several research findings. For example, Cubillo, Sanchez and Cervino (2006), Mazzarol and Hosie, (1996) and Lin (1997) mentioned about the perceived prospects for future earning, recognition of institutions by future employers and associated status gained after graduation as important factor affecting applicants' choice of the institutions. Similarly, academic reputation and teaching quality (Souter & Turner, 2002), qualities and expertise of teaching faculty (Cubillo, Sanchez & Cervino, 2006) and learning from faculty and academic reputation (Ho & Hung, 2008) were highlighted as important aspects to attract the prospective students. Consistent with previous researches, quality of curriculum as an important choice criterion (e.g., Bindsardi & Ekwulugo, 2003; Ivy, 2001) was revealed by factor analysis on applicants' survey. The curriculum that increases practical skills and experiences was considered by the applicants but not by the students and influencers in this study.

Quality of infrastructure such as availability of computers (Price et. al., 2003) and library facilities (Qureshi, 1995) was also found to be important aspects of brand equity of higher education institutions. Although they create differential perception and preference of an institution over others, they were not significant predictor of brand equity in case of applicants and influencers as indicated by the respective SEM models. This result indicated that the applicants cannot be induced to choose one institution over others by showing infrastructure facilities. The construct of infrastructures was loaded most commonly with three items representing of having

good computer lab, library and class room facilities. These three variables may be necessary but not sufficient to create strong association leading to brand choice among applicants and influencers. This finding can be related with the concept of point of parity and point of difference as suggested by Kotler and Keller (2009). They suggested that points of difference in contrast to point of parity are the attributes or benefits customer strongly associate with a brand, positively evaluate and believe that they could not find in competitors' brand to the same extent. Nevertheless, infrastructures have been one of the predictors of the perceived quality and brand equity in the case of students.

All the sample groups considered advertisement and word of mouth as important factors of brand equity structure. However, advertisements were not a significant contributor to brand equity in any sample groups. This finding contradicted many brand related research such as Cobb- Walgren, Ruble and Donthu (1995); Gray, Fam and Llanes, (2003) and Yoo, Donthu and Lee (2000). Nevertheless word of mouth is an important factor for stimulating brand equity. This result was consistent with several researches such as Bindsardi and Ekwulung (2003) and Ivy (2001). In addition, Kotler and Keller (2009) mentioned that service consumers rely on word of mouth rather than advertisement as revealed by this study.

The above mentioned results were inconsistent with the results of opinion leaders' survey. The survey on opinion leaders revealed that the faculty and education administrators considered quality of faculty alone as brand drivers contributing to brand equity. However, employability, advertisement and word of mouth were necessary components of brand equity structure but do not contribute significantly to the brand equity outcome. Since this survey was carried out only for

supplementing content validity, this inconsistency in causal relationship poses no threats to the validity of overall findings.

In summary, among the brand drivers, applicants' perception on quality of faculty, graduate employability, word of mouth and curriculum positively influenced brand equity outcome, but infrastructures and advertisement did not. Nevertheless, infrastructure was one of the factors to create perceived quality and brand equity outcome among the students. Advertisement did not have any correlations with any brand dimensions. Since the identified brand drivers have different levels of effects on brand dimensions and equity outcome across the sample groups, the concluded scale of brand equity measurement include all commonly found brand drivers. The brand drivers are under direct control of management of higher education institutions, therefore, loading of construct of brand drivers indicated several managerial implications for formulating brand management strategies.

Brand Dimensions

The respondents of this study showed different behavior as against customers of other products or services. Brand dimensions commonly consist of brand awareness, perceived quality, perceived value and organizational association, but they were not so for applicants and influencers. Same was true in case of opinion leaders' survey. Nevertheless, the students' survey indicated their importance because perceived quality and organizational association combined with brand awareness were extracted in their brand equity structure. Inclusion of these dimensions in brand knowledge structure of students supports the fact that the brand in higher education are built only after complete experiences of education program as suggested by Belanger, Mount and Wilson (2002). The decisions on enrolling in higher education institutions usually need complex and high involvement purchase decision process

(Asseal, 1998; Meringe, 2006). The applicants and influencers at the time of application for admission may not have complete information to make final decision. They may not be able to gather and process the complete information about education program. Probably for this reason the students' survey revealed the existence of brand awareness, perceived quality and organizational association in their brand equity structure.

Perceived quality was extracted in students' survey and combined factor analysis but not in applicants' and influencers' surveys. However, this constructs have consistent Cronbach's alphas (.833 to .873) across all the sample groups and survived through test retest reliability tests. Perceived quality was indicated by reliable, good and consistent quality programs with excellent features measured in four observable variables (items). Perceived quality was positively influenced by quality of faculty, infrastructure, graduate employability and word of mouth in combined survey. This finding is consistent with many research literatures which stated that perceived quality is one of the significant brand dimensions (e.g., Aaker, 1991; Kotler & Keller, 2009; and Morton, 1994). Perceived quality is the indicator of functional attributes and benefits of a brand.

Another brand dimension not extracted by any factor analysis but demonstrated consistent reliability alphas of .730 to .770 and has consistent mean score in the test and retest reliability was perceived value. Perceived value was measured through three statements indicating good value for money, getting much more than money paid, and feel of having made a good decision by enrolling in a focal institution. Perceived value is functional attributes compared against the costs paid. Therefore this construct may be included as supplementary scale in brand research in higher education.

Brand awareness was not extracted by any factor analyses except in case of students in which it was combined with brand association. Extraction of brand awareness combined with brand association in the factor analysis was consistent with the findings of Yoo, Donthu and Lee (2001). Failure to extract brand awareness in applicants and influencers may be attributed to the fact that they did not have direct and intensive experiences of the program in an institution. The less experience of the institutions might be the reason in failure to recall the institutions, its logo and characteristics as suggested by Aaker (1991) and Keller (2003). In addition, indirect experiences through seeing and hearing symbolic features about institutions alone do not create brand equity in higher education (Belanger, Mount & Wilson, 2002). However, an item of brand awareness "I can recognize the institution among other competing institutions" was loaded in brand equity outcome in this study. This inclusion of the statement indicated the existence of a component of brand awareness clubbed together with brand equity outcome. This item loading in brand equity indicates that the recognition of institution is required for brand equity but recall was not found relevant to the brand equity. There may be several reasons for this such as logos, symbols and other unique characteristics were not much highlighted in advertisement media. In addition, those attributes, benefits and characteristics that were highlighted were not unique to induce recall of the institutions.

This particular finding is similar to failure to extract organizational association among applicants and influencers. Although the construct of organizational association was extracted in students' survey its squared multiple correlations (R^2) were too low. In addition, organizational association was discarded after test and retest reliability test. Therefore, this construct cannot be considered as a reliable and stable brand dimension. Failure to extract organizational association in brand

dimensions indicated that customers of the higher education did not consider the institutions as trustworthy, credible and symbol of pride. It seems that the students, applicants and influencers were concerned with functional attributes of the education program but not institutional credibility. This finding was also supported during the focus group discussions. A question was asked to the respondents "if we exchange the names of two institutions that you ranked as the first and the second most preferred business schools without replacing all the attributes, do you change the rankings and change the school if allowed. Overwhelming answers were NO. The participants said that quality of education of the institutions is important but not the name. This response indicated that name of the institutions alone can not be trusted to induce brand choice. Similarly an item on brand equity "Even if another B-school is not different from B-school X in any way, it seems smarter to study MBA in B-school X" was not loaded in applicants' survey and combined factor analysis. The Cronbach's alphas of brand equity were excellent without inclusion of this item (.778 to .878) across all the sample groups.

Organizational association have not been developed probably due to market situations of higher education in Nepal as indicated by Meringe (2006), because many institutions use the same faculty members preventing the institutions to be unique in the faculty. The students and applicants may not be sure of the best employability across the institutions. Similarly, infrastructures were not regarded unique to institutions. Failure to extract brand awareness and organizational association has research implication to explore its generalizability in international higher education market.

It appeared that brand dimensions of higher education include perceived quality and perceived value. Both of them are brand's functional association. The

students and influencers might have thought that their focal institution had comparatively better faculty and graduate employability. Failure to give unique and symbolic organizational association in education program would be threat to any institutions because functional quality can be copied easily by competitors. Therefore, higher education institutions should strive for creating trust, credibility and sense of pride being students of the institutions for their long term sustainability in the competitive education market.

Brand Equity Outcome

This research in consistent with the theory proposed that brand equity is outcome of brand dimensions which in turn is contributed by brand drivers. Brand equity construct was extracted in all the factor analyses with the statements (items) such as recommending others to make a focal business school a first choice for MBA program, considering the school as the best and recognizing the school among other competing B-schools. It is consistent with the definition of brand equity outcome as they indicate favorable response towards a products and services (Keller 2003) through favorable perception, preference, purchase intentions, commitment and attachment to the institutions for the program (Aaker, 1991). This construct had consistently excellent Cronbach's alphas (.778 to .878) across all the sample groups, and survived through test retest reliability test. Therefore this construct had content validity and is an authentic measure of brand equity.

The first item - "I can recognize B-school X among other competing B-school for MBA program" is consistent with the definition of brand awareness. "MBA of B-school X is the best choice for MBA students" is consistent with brand association and "I would definitely recommend to others to make B-school X their first choice when considering studying MBA program" is consistent with brand response. As

mentioned earlier the item - “Even if another B-school is not different from B school X for MBA in any way, it seems smarter to study MBA in B-school X” loaded in students’ and influencers’ survey conform to the definition of organizational association. Therefore, brand equity was measured through combination of four dimensional brand construct as indicated by several brand researches (e.g., Buil, Chernatony & Martinez, 2008; Pappu,Quester & Cookery, 2005; Yoo & Donthu, 2001). This construct alone can be sufficient to measure overall and multidimensional brand equity.

Validity of the Constructs

The brand equity construct has consistently satisfactory convergent validity with brand dimensions - perceived quality (correlations of .548 to .594) and perceived value (correlations of .583 to .663) across all the sample groups. Since the correlations did not exceed .70, it indicates discriminant validity of the constructs. Therefore, the brand equity has construct validity because it measured similar constructs belonging to groups of multi dimensional brand equity (Yoo & Donthu, 2001) and each of them measured separate constructs. Brand equity constructs were cross validated with brand attitudes which measures brand strengths. The correlations between brand equity and brand attitudes ranged from .426 to .574 again proved construct validity (Netemeyer et. al., 2004, Yoo & Donthu, 2002). Similar were the correlations of brand equity with perceived quality and perceived value. They also indicated that the extracted brand dimensions were valid. Correlations between perceived quality and perceived value were .618 to .703 which indicated that they are convergent but not that much discriminant. Therefore, either one of the constructs or both combined together may be used as brand dimensions (Netemeyer et. al., 2004) in the future research.

Brand equity was also measured through purchase intentions. The cross validation between brand equity and purchase intention was carried out in the applicants' survey. Correlation between these two constructs was .782. Since brand equity is considered to be an antecedent of purchase intention (Netemeyer et. al., 2004; Yoo & Donthu, 2001), this construct validity indicator was again analyzed through SEM from nomological perspective. Brand equity was found to be a significant predictor of purchase intentions (β =.78, p = .000) showing its construct validity.

Another nomological validation was carried out with correlation between acceptability of choice of alternatives with brand equity during students' survey. The brand equity of students were verified with acceptability of choice alternative in order to see whether the institution which they have been studying is really their first choice or the most preferred one. The correlation was insignificant indicating that the students who rated high in brand equity of a particular institution were not interested with other available institutions. It proved that brand equity was accurately measured. If the correlation would have been positive that would indicate contradictory views of the respondents, and it would violate construct validity. This result was also supported by opinion leaders' survey. In addition, nomological validity tested through SEM indicated the existence of this theoretical brand knowledge structure. In this theoretical construct brand drivers positively influenced brand dimensions, and the brand dimensions positively influenced brand equity. This research confirmed the existence of this theoretical relationship.

Brand equity emerged from the differential effect that brand knowledge has on customers' response to the marketing efforts (Keller, 2003). The responsible marketing efforts as indicated by this study are improving and maintaining of

perception of quality of faculty and graduate employability. In addition, undirected promotion - word of mouth appeared to be an important brand driver which demands for concrete marketing program for customer loyalty. All these marketing efforts increase perceived quality of the programs offered by business schools. The increased perceived qualities of the programs create positive response of applicants, influencers and students towards the education institutions.

In summary, this study outlined the structure and compositions of brand equity in higher education as suggested in the theoretical framework. The associated facets of brand equity were quality of faculty, infrastructure, employability, advertisement and word of mouth as brand drivers. These brand drivers particularly faculty, employability and word of mouth promotion directly affect brand equity of applicants and influencers. These brand drivers indirectly influenced brand equity through perceived quality in case of students. Brand development was premature in applicants and influencers in comparison to students obviously because of differences in exposure to and experiences with the brand – program of the higher education institutions. The constructs and their compositions and structure identified by this study are recommended for replication in the future research on measurement of brand equity of business schools in particular and all higher education programs in general.

Managerial Implications

This study confirmed the relevance of brand equity concept and existence of brand equity structure in higher education market. The constructs explored by this research can be used to assess students' expectations and satisfaction from the education programs and the higher education institutions. The constructs can also be used to compare students' evaluation across different institutions and education

programs parsimoniously. In addition, this research has implications for policy makers of higher education and management of individual institutions.

There are growing competitive threats to domestic education institutions from foreign players. The greatest challenge for domestic providers is to prevent competition from substandard providers promoting so called “foreign brand” to attract substantial number of students. This study indicated that students develop positive, favorable and unique perception and preference on higher education institutions which they perceive to have quality faculty and high graduate employability. Therefore, higher education policy should include a provision for higher education institutions to submit the evidence of having credible faculty and potential graduate employability to allow foreign players to operate in the country. Similarly, these criteria should also be used in monitoring of the academic performance of the institutions. The performance may be published to ensure that the applicants are well informed before making their choice decision.

Management of individual institutions should be aware that the students did not value advertisement much, and the advertisements with the exposure of infrastructure facilities do not yield effective commitment toward the institutions among the applicants. The main aim of brand promotion should be to provide testimony that the curriculum gives adequate amount of practical experiences and skills, the institutions have high placement rates for their graduates, and faculty have high professional credibility.

Once the students get enrolled in the institutions, they should be educated with the quality curriculum and faculty as they were promised during application phase. During the study period infrastructure particularly class room, computer lab and library facilities would play a greater role to improve perceived quality of the program.

The institutions with effective placement cell would also contribute to create greater students' attachment and commitment towards the institutions. The provisions of infrastructure and placement program would create brand equity among the students. Fulfilling those requirements would make the students brand ambassadors who always recommend others to join the same institutions for the program. They may increase word of mouth promotion which is an effective driver of brand equity.

The higher education institutions can use the findings of this study to monitor their brand development in a periodic basis in order to find out their brand value and market position in the eyes of students and their influencers. Understanding their brand value and market position would help them to develop their branding strategies. One institution may position itself as having the best faculty; and other can position itself as having the best placement rates etc. The brand duality i.e. having more than one brand positioning would result better than having one. The positioning strategy would help institutions to create perception of trust and credibility among the students which are found to be weak and unstable at present. Developing this type of distinct organizational identity prevent competitors to challenge market position of higher education institutions.

The students were found to have sense of perceived quality and perceived value in terms of costs they paid to the institutions. The domestic institutions should capitalize this brand association in order to develop competitive strategies against expensive foreign providers. The promotion of this theme would help in making higher education price competitive. This type of promotion is socially justifiable marketing strategy in education market.

Absence of strong trust and credibility among the students of the institutions should be considered as serious issue in higher education market. Lack of trust may

be because of use of the same faculty in multiple institutions, and or the students do not know whether they should trust providers (mostly affiliated colleges) or universities which offer them the degree. Therefore management of universities and the providers – affiliated colleges should promote both their program attributes as well as credibility of the universities to create strong organizational associations.

Research Implications

This research used exploratory factor analysis alone to confirm item loadings to different construct. Confirmatory factor analysis is suggested to increase the validity of item loading into the latent variables in the future research. Confirmatory factor analysis is a sophisticated multivariate analysis which requires larger sample size for each sample groups in order to include large number of parameters as used in this research. Therefore, future research should focus on fewer variables to suit the sample size or increase sample size to accommodate larger number of variables.

This study should be replicated in different streams of education such as medical, engineering, education, science etc. at Masters' and Bachelor's level in the country and across the country to improve generalizability of the findings. In addition, country of origin has been a strong brand driver in higher education. The future research may include this construct for cross national validation of the constructs.

Organizational associations that exist in brand equity structure of students were discarded due to less satisfactory results in test- retest reliability in students groups. Future research may explore the reasons for lack of stability of this constructs. This may be because either the students did not consistently understand the statements used in the questionnaire during the survey or they were not sure of trust worthiness of the institutions. The future research need to explore this issue since organization

association is very important brand dimension for service institution like higher education.

Another interesting research area will be investigation of brand image dilution caused by constituent or affiliated colleges. This research failed to investigate whether the brand equity of the institutions was due to providers' image or universities' image or both. Quite often when the providers' brand images suffer this dilutes university's brand image, but when the providers' image improves, universities' image will not improve.

Longitudinal study on brand development process would be necessary to confirm whether the brand equity in education develop gradually starting from pre application to post graduation stage as suggested by the theory. For this purpose the study would start on the group of applicants and they must be repeatedly studied till their graduation and post graduation.

Lastly but not the least, the brand equity of higher education can also be measured on employers who recruit the graduates after completing their study. Their preference and choice of the graduates is quite often influenced by their awareness, perception and preference of the higher education institutions from which prospective job applicants have graduated. Therefore, another research implication of this study is to carry out brand equity research on employers.

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Appendixes

Appendix A

Survey on Business Schools (B-schools) offering MBA – Pilot Study

Dear respondents (MBA students)

The objective of this survey is to investigate the perception of MBA students on several business schools on a number of criteria to assess brand value of their MBA programs. You need to assess MBA program of the B-schools where you are studying in comparison to other B- Schools in Nepal. Your response will be used for academic research only.

Please read carefully and answer the following questions. Be sincere in your response. There are no right and wrong answers. It is only your opinion that we are interested in. Your response is very important and we will greatly appreciate it.

1. From the following institutions (B-schools) offering MBA, please choose one B-school you are studying with and please circle one answer.

Ace	1
Apex	2
Himalayan Whitehouse	3
KUSOM	4

2. To indicate how much you agree or disagree with each statement, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.
Note: In the following questions, the "X" represents the B-school you chose in the question 1. (For example, if you choose "Ace" as you are studying in question 1, the "X" in the following questions represents "Ace".)

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. When I think of MBA, B-school X is one of the B-schools that come to mind.	1	2	3	4	5
2. I can quickly recall the symbol or logo of B-school X.	1	2	3	4	5
3. Some characteristics of MBA of B-school X come quickly to my mind.	1	2	3	4	5
4. I can recognize B-school X among other competing B-schools for MBA programs.	1	2	3	4	5
5. I have clear image of the type of person who would study MBA in B-school X.	1	2	3	4	5
6. I would definitely recommend to others to make B school X their first choice when considering studying MBA program.	1	2	3	4	5
7. MBA of B-school X is the best choice for me.	1	2	3	4	5
8. I am willing to donate to the extent possible to MBA of B-school X.	1	2	3	4	5
9. I am always interested to learn more about MBA of B-school X.	1	2	3	4	5
10. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.	1	2	3	4	5

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
11. MBA of B-school X is affiliated / constituent to reputed university.	1	2	3	4	5
12. MBA of B-school X is renowned for quality education.	1	2	3	4	5
13. B-school X is one of the best school / campus /college for MBA.	1	2	3	4	5
14. MBA in B-school X provides a meaningful internship.	1	2	3	4	5
15. MBA in B-school X provides practically oriented knowledge.	1	2	3	4	5
16. MBA in B-school X provides practical assignments.	1	2	3	4	5
17. MBA in B-school X provides more case studies.	1	2	3	4	5
18. B-school X has qualified faculty in its MBA program.	1	2	3	4	5
19. B-school X has professional faculty in its MBA program.	1	2	3	4	5
20. B-school X has competent faculty in its MBA program.	1	2	3	4	5
21. B-school X has a good building for its MBA program.	1	2	3	4	5
22. B-school X has a well equipped library for its MBA program.	1	2	3	4	5
23. B-school X has good computer labs for its MBA program.	1	2	3	4	5
24. B-school X has good classrooms for its MBA program.	1	2	3	4	5
25. B-school X has a good open area for its MBA program.	1	2	3	4	5
26. B-school X has a good canteen for its MBA program.	1	2	3	4	5
27. MBA of B-school X does not have political interference in students' affairs.	1	2	3	4	5
28. B-school X has good relationship between MBA students and teachers.	1	2	3	4	5
29. B-school X gives good personal attention to its MBA students.	1	2	3	4	5
30. B-school X creates opportunities for a highly paid job after MBA.	1	2	3	4	5
31. B-school X has a good placement of MBA graduates.	1	2	3	4	5
32. B-school X's MBA graduates have earned a good money.	1	2	3	4	5
33. B-school X's MBA graduates achieved higher career positions.	1	2	3	4	5
34. B-school X's MBA students are competent.	1	2	3	4	5
35. B-school X's MBA students are co-operative.	1	2	3	4	5
36. B-school X's MBA students are confident.	1	2	3	4	5
37. B-school X's MBA students are down to earth.	1	2	3	4	5
38. MBA of B-school X is intensively advertised.	1	2	3	4	5
39. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.	1	2	3	4	5
40. The ad campaign for MBA of B-school X is seen frequently.	1	2	3	4	5

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
41. MBA of B-school X is well known to my friends and relatives.	1	2	3	4	5
42. My friends and relatives strongly advised me to study MBA in B-school X.	1	2	3	4	5
43. My friends and relatives advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5

4. The following questions are for background purpose only. Response will be kept confidential.

Note: For the following questions, please tick one answer that describes your current situation.

a. What is your sex?

Male [ ] Female [ ]

b. What is your age?

21 – 25 years old [ ] 26 – 30 years old [ ]
31 – 35 years old [ ] More than 35 years old [ ]

c. Which category best describe your past school?

Management [ ] Engineering [ ]
Science [ ] Humanities [ ]
Medical [ ] Others [ ]

d. What is your monthly family income in Nepali rupees?

Less than 10,000	[ ]	10,000 to 20,000	[ ]	20,001 to 30,000	[ ]
30,001 to 40,000	[ ]	40,001 to 50,000	[ ]	50,001 to 60,000	[ ]
60,001 to 70,000	[ ]	70,001 to 80,000	[ ]	80,001 to 90,000	[ ]
90,001 to 100,000	[ ]	More than 100,000	[ ]		

Appendix B

Survey on Business Schools (B-schools) offering MBA

Dear respondents (MBA candidates)

The objective of this survey is to investigate the perception of MBA candidates on several business schools on a number of criteria to assess brand value of their MBA programs. You need to assess MBA program of only one among the listed B-schools. Your response will be used for academic research only.

Please read carefully and answer the following questions. Be sincere in your response. There are no right and wrong answers. It is only your opinion that we are interested in. Your response is very important and we will greatly appreciate it.

1. From the following institutions (B-schools) offering MBA, please choose one B-school you are most FAMILIAR with and please circle one answer. (Note: If you are not familiar with any of the listed B-schools, select other college and school that you are familiar with).

Ace	1
Apex	2
Himalayan Whitehouse	3
KUSOM	4

2. To indicate how much you agree or disagree with each statement, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.
Note: In the following questions, the "X" represents the B-school you chose in the question 1. (For example, if you choose "Ace" as you are most familiar with in question 1, the "X" in the following questions represents "Ace".)

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. When I think of MBA, B-school X is one of the B-schools that come to mind.	1	2	3	4	5
2. I can quickly recall the symbol or logo of B-school X.	1	2	3	4	5
3. Some characteristics of MBA of B-school X come quickly to my mind.	1	2	3	4	5
4. I can recognize B-school X among other competing B-schools for MBA programs.	1	2	3	4	5
5. I have clear image of the type of person who would study MBA in B-school X.	1	2	3	4	5
6. I would definitely recommend to others to make B school X their first choice when considering studying MBA program.	1	2	3	4	5
7. MBA of B-school X is the best choice for me.	1	2	3	4	5
8. I am willing to donate to the extent possible to MBA of B-school X.	1	2	3	4	5
9. I am always interested to learn more about MBA of B-school X.	1	2	3	4	5
10. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.	1	2	3	4	5
11. B-school X offers very good quality MBA program.	1	2	3	4	5
Statements	Strongly disagree	Disagree	Neither disagree	Agree	Strongly agree

			nor agree		
12. B-school X offers MBA of consistent quality.	1	2	3	4	5
13. B-school X offers very reliable MBA.	1	2	3	4	5
14. B-school offers MBA with excellent features.	1	2	3	4	5
15. MBA from B-school X is good value for money.	1	2	3	4	5
16. I consider admitting into B-school X for MBA is a good decision.	1	2	3	4	5
17. Considering what I would pay for MBA of B-school X, I would get much more than my money's worth.	1	2	3	4	5
18. I trust MBA from B-school X.	1	2	3	4	5
19. The MBA from B-school X has credibility.	1	2	3	4	5
20. Getting admission in MBA of B-school X will be my pride.	1	2	3	4	5
21. MBA of B-school X is affiliated / constituent to reputed university.	1	2	3	4	5
22. MBA of B-school X is renowned for quality education.	1	2	3	4	5
23. B-school X is one of the best school / campus /college for MBA.	1	2	3	4	5
24. MBA in B-school X provides a meaningful internship.	1	2	3	4	5
25. MBA in B-school X provides practically oriented knowledge.	1	2	3	4	5
26. MBA in B-school X provides practical assignments.	1	2	3	4	5
27. MBA in B-school X provides more case studies.	1	2	3	4	5
28. B-school X has qualified faculty in its MBA program.	1	2	3	4	5
29. B-school X has professional faculty in its MBA program.	1	2	3	4	5
30. B-school X has competent faculty in its MBA program.	1	2	3	4	5
31. B-school X has a good building for its MBA program.	1	2	3	4	5
32. B-school X has a well equipped library for its MBA program.	1	2	3	4	5
33. B-school X has good computer labs for its MBA program.	1	2	3	4	5
34. B-school X has good classrooms for its MBA program.	1	2	3	4	5
35. B-school X has a good open area for its MBA program.	1	2	3	4	5
36. B-school X has a good canteen for its MBA program.	1	2	3	4	5
37. MBA of B-school X does not have political interference in students' affairs.	1	2	3	4	5
38. B-school X has good relationship between MBA students and teachers.	1	2	3	4	5
39. B-school X gives good personal attention to its MBA students.	1	2	3	4	5
40. B-school X creates opportunities for a highly paid job after MBA.	1	2	3	4	5
41. B-school X has a good placement of MBA graduates.	1	2	3	4	5
	Strongly disagree	Disagree	Neither disagree	Agree	Strongly agree

			nor agree		
42. B-school X's MBA graduates have earned a good money.	1	2	3	4	5
43. B-school X's MBA graduates achieved higher career positions.	1	2	3	4	5
44. B-school X's MBA students are competent.	1	2	3	4	5
45. B-school X's MBA students are co-operative.	1	2	3	4	5
46. B-school X's MBA students are confident.	1	2	3	4	5
47. B-school X's MBA students are down to earth.	1	2	3	4	5
48. MBA of B-school X is intensively advertised.	1	2	3	4	5
49. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.	1	2	3	4	5
50. The ad campaign for MBA of B-school X is seen frequently.	1	2	3	4	5
51. MBA of B-school X is well known to my friends and relatives.	1	2	3	4	5
52. My friends and relatives strongly advised me to study MBA in B-school X.	1	2	3	4	5
53. My friends and relatives advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
54. My parents in particular strongly advised me to study MBA in B-school X.	1	2	3	4	5
55. My parents in particular advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
56. MBA of B-school X is well known to my parents.	1	2	3	4	5
57. I would like to study MBA in B-school X.	1	2	3	4	5
58. I intend to get admission in MBA in B-school X.	1	2	3	4	5
59. My willingness to get admission in MBA of B-School X is very high.	1	2	3	4	5

3. To indicate how you evaluate MBA of B-school X in each pair of adjective, please circle one answer. For example circling "1"means you have very positive evaluation of B- School X and circling "5" means you have very negative evaluation of the school. You may circles any number in the middle to indicate your positive or negative feelings about the B-School X.

In my opinion, MBA of B-school X is……

Very good	1	2	3	4	5	Very bad
Very favorable	1	2	3	4	5	Not at all favorable
Very pleasing	1	2	3	4	5	Very unpleasing
Very acceptable	1	2	3	4	5	Very unacceptable
Extremely likable	1	2	3	4	5	Extremely unlikable

4. The following questions are for background purpose only. Response will be kept confidential.

Note: For the following questions, please tick one answer that describes your current situation.

a. What is your sex?

Male [ ] Female [ ]

b. What is your age?

21 – 25 years old [ ] 26 – 30 years old [ ]
31 – 35 years old [ ] More than 35 years old [ ]

c. Which category best describe your past school?

Management [ ] Engineering [ ]
Science [ ] Humanities [ ]

Medical [ ] Others [ ]

d. What is your monthly family income in Nepali rupees?

Less than 10,000	[ ]	10,000 to 20,000	[ ]	20,001 to 30,000	[ ]
30,001 to 40,000	[ ]	40,001 to 50,000	[ ]	50,001 to 60,000	[ ]
60,001 to 70,000	[ ]	70,001 to 80,000	[ ]	80,001 to 90,000	[ ]
90,001 to 100,000	[ ]	More than 100,000	[ ]		

e. Have any of your close associates studied in this B-school X? Yes [ ] No [ ]

f. If yes, who are they? (Tick all correct answers)

Parent	[ ]	Uncles	[ ]	Brothers/sisters	[ ]
Cousins	[ ]	Friends	[ ]	Neighbors	[ ]

5. Were other people involved in your decision to apply for admission test in KUSOM?

No, it is entirely my own decision [ ] Yes, decision to apply has their involvements [ ]

If yes, please circle one answer to relevant rows to indicate their involvement in your decision. (Don't answer for those relatives or friends who were not involved in your decision)

Level of involvement =>	I consulted with ...	I was suggested by …	I was convinced by …	I was told to apply by …
Parent or guardian	1	2	3	4
Uncle or aunt	1	2	3	4
Brothers or sisters	1	2	3	4
Cousins	1	2	3	4
Neighbors or relatives' friends	1	2	3	4
My Friends	1	2	3	4

Appendix C

SURVEY ON BUSINESS SCHOOLS (B-SCHOOLS) OFFERING MBA

Dear respondent (One who will/ recommend/s MBA applicants / students)

The objective of this survey is to investigate the perception of those who will and have recommended MBA applicants about the institute for studying MBA. This study will evaluate several business schools on a number of criteria to assess brand value of their MBA programs. You need to assess MBA program of only one among the listed B-schools. Your response will be used for academic research only and your answers will be kept confidential and used in aggregate form.

Please read carefully and answer the following questions. Be sincere in your response. There are no right and wrong answers. It is only your opinion that we are interested in. Your response is very important and we will greatly appreciate it.

A. From the following institutes (B-schools), please choose one B-school that you are most familiar with and please circle one answer.

Ace	1
Apex	2
Himalayan Whitehouse	3
KUSOM	4

B. To indicate how much you agree or disagree with **each statement**, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.

Note: In the following statements, the "X" represents the B-school you chose in the question A. (For example, if you choose "Ace" in question A, the "X" in the following statements represents "Ace".)

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. I can recognize B-school X among other competing B-schools for MBA programs.	1	2	3	4	5
2. I would definitely recommend to others to make B-school X their first choice when considering studying MBA program.	1	2	3	4	5
3. MBA of B-school X is the best choice for MBA students among the competing B-schools.	1	2	3	4	5
4. Even if another B-school is not different from B-school X for MBA in any way, it seems smarter to study MBA in B-school X.	1	2	3	4	5
5. B-school X offers very good quality MBA program.	1	2	3	4	5
6. B-school X offers MBA of consistent quality.	1	2	3	4	5
7. B-school X offers very reliable MBA.	1	2	3	4	5
8. B-school offers MBA with excellent features.	1	2	3	4	5
9. MBA from B-school X is good value for money.	1	2	3	4	5
10. I consider admitting into B-school X for MBA is a good decision.	1	2	3	4	5
11. Considering what students would pay for MBA of B-school X, they would get much more than their money's worth.	1	2	3	4	5
12. I trust MBA from B-school X.	1	2	3	4	5
13. The MBA from B-school X has credibility.	1	2	3	4	5
14. Getting admission in MBA of B-school X will be pride for the students.	1	2	3	4	5
15. When I think of MBA, B-school X is one of the B-schools that come to mind among the competing B-schools.	1	2	3	4	5

16. I can quickly recall the symbol or logo of B-school X.	1	2	3	4	5
17. Some characteristics of B-school X come quickly to my mind.	1	2	3	4	5
18. I have clear image of the type of person who would study MBA in B-school X.	1	2	3	4	5
19. I am always interested to learn more about B-school X.	1	2	3	4	5

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. MBA in B-school X provides practically oriented knowledge.	1	2	3	4	5
2. MBA in B-school X provides practical assignments.	1	2	3	4	5
3. MBA in B-school X provides sufficient case studies.	1	2	3	4	5
4. B-school X has qualified faculty in its MBA program.	1	2	3	4	5
5. B-school X has professional faculty in its MBA program.	1	2	3	4	5
6. B-school X has competent faculty in its MBA program.	1	2	3	4	5
7. B-school X has a good building for its MBA program.	1	2	3	4	5
8. B-school X has a well equipped library for its MBA program.	1	2	3	4	5
9. B-school X has good computer labs for its MBA program.	1	2	3	4	5
10. B-school X has good classrooms for its MBA program.	1	2	3	4	5
11. B-school X has a good open area for its MBA program.	1	2	3	4	5
12. B-school X creates opportunities for a highly paid job after MBA.	1	2	3	4	5
13. B-school X has a good placement of MBA graduates.	1	2	3	4	5
14. B-school X's MBA graduates have earned a good money.	1	2	3	4	5
15. B-school X's MBA graduates achieved higher career positions.	1	2	3	4	5
16. MBA of B-school X is intensively advertised.	1	2	3	4	5
17. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.	1	2	3	4	5
18. The ad campaign for MBA of B-school X is seen frequently.	1	2	3	4	5
19. My friends strongly advised students to study MBA in B-school X.	1	2	3	4	5
20. My friends advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
21. My relatives advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
22. My relatives strongly advised students to study MBA in B-school X.	1	2	3	4	5

B. To indicate how you evaluate MBA of B-school X in each pair of adjective, please circle one answer in each row. For example circling "1" means you have very positive evaluation of B-School X and circling "5" means you have very negative evaluation of the school. You may circle any number in the middle to indicate your evaluation.

In my opinion, MBA of B-school X is……

Very good	1	2	3	4	5	Very bad
Very favorable	1	2	3	4	5	Very unfavorable
Very pleasing	1	2	3	4	5	Very unpleasing
Very acceptable	1	2	3	4	5	Very unacceptable
Extremely likable	1	2	3	4	5	Extremely unlikable

C. The following questions are for background purpose only. Response will be kept confidential.

Note: For the following questions, please tick (√) one answer that describes your current situation.

a. What is your relationship with the MBA applicants/ students that you have recommended to? (multiple choice possible)

Son/daughter	[ ]	Nephew/niece	[ ]	Brother/sister	[ ]
Cousins	[ ]	Students	[ ]	Friends	[ ]
Other (specify)	[ ]	Not recommended yet			[ ]

b. What is your sex?

Male [ ] Female [ ]

c. What is your age?

21 – 30 years old	[ ]	31 – 40 years old	[ ]
41 – 50 years old	[ ]	51 – 60 years old	[ ]
More than 60 years old	[ ]		

d. Which category best describe your immediate past educational level?

Below Intermediate	[ ]	Intermediate	[ ]
Bachelor	[ ]	Masters	[ ]
PhD	[ ]	Above PhD	[ ]

e. Which category best describe your present occupation?

Government service	[ ]	Teaching	[ ]
Private business organization	[ ]	Non-government organization	[ ]
Donor organization	[ ]	Self employed	[ ]
Student	[ ]	Other (specify ……)	[ ]

Appendix D

SURVEY ON BUSINESS SCHOOLS (B-SCHOOLS) OFFERING MBA - B-School X

Dear respondent (B-School X MBA student)

The objective of this survey is to investigate the perception of MBA students on several business schools on a number of criteria to assess brand value of their MBA programs. **You need to assess MBA program of the B-school where you are studying in comparison to other B-schools in Nepal.** Your response will be used for academic research only and your answers will be kept confidential and used only in aggregate form. This questionnaire will take approximately 10 minutes to complete.

Please read carefully and answer the following questions. Be honest in your response. There are no right and wrong answers. It is only your opinion that we are interested in. Your response is very important and we appreciate your time and willingness to respond.

A. Indicate how much you agree or disagree with **each statement** by circling one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.

Note: In the following statements, the "**B-School X**" represents the B-school you are evaluating.

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. I can recognize B-School X among other competing B-schools for MBA programs.	1	2	3	4	5
2. I would definitely recommend to others to make B-School X their first choice when considering studying MBA program.	1	2	3	4	5
3. MBA of B-School X is the best choice for me among the competing B-schools.	1	2	3	4	5
4. Even if another B-school is not different from B-School X for MBA in any way, it seems smarter to study MBA in B-School X.	1	2	3	4	5
5. MBA in B-School X provides practically oriented knowledge.	1	2	3	4	5
6. MBA in B-School X provides practical assignments.	1	2	3	4	5
7. MBA in B-School X provides sufficient case studies.	1	2	3	4	5
8. B-School X has qualified faculty in its MBA program.	1	2	3	4	5
9. B-School X has professional faculty in its MBA program.	1	2	3	4	5
10. B-School X has competent faculty in its MBA program.	1	2	3	4	5
11. B-School X has a good building for its MBA program.	1	2	3	4	5
12. B-School X has a well equipped library for its MBA program.	1	2	3	4	5
13. B-School X has good computer labs for its MBA program.	1	2	3	4	5
14. B-School X has good classrooms for its MBA program.	1	2	3	4	5
15. B-School X has a good open area for its MBA program.	1	2	3	4	5
16. B-School X creates opportunities for a highly paid job after MBA.	1	2	3	4	5
17. B-School X has a good placement for MBA graduates.	1	2	3	4	5
18. B-School X's MBA graduates have earned good money.	1	2	3	4	5
19. B-School X's MBA graduates achieved higher career positions.	1	2	3	4	5

20. MBA of B-School X is intensively advertised.	1	2	3	4	5
21. The ad campaign of MBA of B-School X seems very expensive compared to the campaigns of competing B-schools.	1	2	3	4	5
22. The ad campaign for MBA of B-School X is seen frequently.	1	2	3	4	5
23. My friends strongly advised me to study MBA in B-School X.	1	2	3	4	5
24. My friends advocate more for MBA of B-School X than competing B-schools.	1	2	3	4	5
25. My relatives advocate more for MBA of B-School X than competing B-schools.	1	2	3	4	5
26. My relatives strongly advised me to study MBA in B-School X.	1	2	3	4	5

B. To indicate how you evaluate MBA of B-School X in each pair of adjective, please circle one answer in each row. For example circling "1" means you have very positive evaluation of B-School X and circling "5" means you have very negative evaluation of the school. You may circle any number in the middle to indicate your evaluation.

In my opinion, MBA of B-School X is……

Very good	1	2	3	4	5	Very bad
Very favorable	1	2	3	4	5	Very unfavorable
Very pleasing	1	2	3	4	5	Very unpleasing
Very acceptable	1	2	3	4	5	Very unacceptable
Extremely likable	1	2	3	4	5	Extremely unlikable

C. To indicate how much you agree or disagree with **each statement**, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. B-School X offers very good quality MBA program.	1	2	3	4	5
2. B-School X offers MBA of consistent quality.	1	2	3	4	5
3. B-School X offers very reliable MBA.	1	2	3	4	5
4. B-School X offers MBA with excellent features.	1	2	3	4	5
5. MBA from B-School X is good value for money.	1	2	3	4	5
6. I consider admitting into B-School X for MBA is a good decision.	1	2	3	4	5
7. I get much more from MBA of B-School X than what I paid for it.	1	2	3	4	5
8. I trust MBA from B-School X.	1	2	3	4	5
9. The MBA from B-School X has credibility.	1	2	3	4	5
10. Getting admission in MBA of B-School X will be my pride.	1	2	3	4	5
11. When I think of MBA, B-School X is one of the B-schools that come to mind among the competing B-schools.	1	2	3	4	5
12. I can quickly recall the symbol or logo of B-School X.	1	2	3	4	5
13. Some characteristics of B-School X come quickly to my mind.	1	2	3	4	5
14. If I need to change B-School X, there are other good business schools to choose from.	1	2	3	4	5
15. I would probably be happy with MBA of other business schools.	1	2	3	4	5
16. Compared to B-School X, there are other B-schools with which I would probably be equally or more satisfied.	1	2	3	4	5
17. Compared to B-School X, there are not many other B-schools with which I could be satisfied.	1	2	3	4	5

C. The following questions are for background purpose only. Response will be kept confidential.

Note: For the following questions, please tick (√) one answer that describes your current situation.

a) What program are you studying?

MBA [ ] EMBA [ ] MBA evening [ ]

b) Which semester or term you are studying now?

I semester/ term	[ ]	II semester /term	[ ]
III semester /term	[ ]	IV semester/ terms	[ ]
V term	[ ]	VI term	[ ]

c) What is your sex? Male [ ] Female [ ]

d) What is your age?

21 – 25 years old	[ ]	26 – 30 years old	[ ]
31 – 35 years old	[ ]	36 – 40 years old	[ ]
More than 40 years old	[ ]		

e) What is your monthly family income (in NPR)?

Less than Rs. 30,000	[ ]	30,000 to 60,000	[ ]
60,001 to 80,000	[ ]	More than 80,000	[ ]

Appendix E

SURVEY ON BUSINESS SCHOOLS (B-SCHOOLS) OFFERING MBA

Dear respondent (Professor / Education administrator)

The objective of this survey is to compare your perception with the perception of MBA students on several business schools on a number of criteria to assess brand value of MBA programs. **You need to assess MBA program of the B-school you are most familiar with in comparison to other B-schools in Nepal.** Your response will be used for academic research only and your answers will be kept confidential and used only in aggregate form. This questionnaire will take approximately 10 minutes to complete.

Please read carefully and answer the following questions. Be honest in your response. There are no right and wrong answers. It is only your opinion that we are interested in. Your response is very important and we appreciate your time and willingness to respond.

A. Among the following institutes (B-schools), please choose one B-school that you are most familiar with and please circle one answer.

Ace	1	Apex	2	Whitehouse	3	KUSOM	4	Other (Specify: …….	5

B. To indicate how much you agree or disagree with **each statement** below, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.

Note: In the following statements, the "X" represents the B-school you chose in the question A. (For example, if you choose "Ace" in question A, the "X" in the following statements represents "Ace".)

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. I can recognize B - school X among other competing B-schools for MBA programs.	1	2	3	4	5
2. I would definitely recommend students to make B - school X their first choice when considering studying MBA program.	1	2	3	4	5
3. MBA of B-school X is the best choice for MBA students among the competing B-schools.	1	2	3	4	5
4. Even if another B-school is not different from B- school X for MBA in any way, it seems smarter to study MBA in B- school X.	1	2	3	4	5
5. MBA in B-school X provides practically oriented knowledge.	1	2	3	4	5
6. MBA in B-school X provides practical assignments.	1	2	3	4	5
7. MBA in B-school X provides sufficient case studies.	1	2	3	4	5
8. B-school X has qualified faculty in its MBA program.	1	2	3	4	5
9. B-school X has professional faculty in its MBA program.	1	2	3	4	5
10. B-school X has competent faculty in its MBA program.	1	2	3	4	5
11. B-school X has a good building for its MBA program.	1	2	3	4	5
12. B-school X has a well equipped library for its MBA program.	1	2	3	4	5
13. B-school X has good computer labs for its MBA program.	1	2	3	4	5
14. B-school X has good classrooms for its MBA program.	1	2	3	4	5
15. B-school X has a good open area for its MBA program.	1	2	3	4	5
16. B-school X creates opportunities for a highly paid job after MBA.	1	2	3	4	5
17. B-school X has a good placement of MBA graduates.	1	2	3	4	5
18. B-school X's MBA graduates have earned good money.	1	2	3	4	5
19. B-school X's MBA graduates achieved higher career positions.	1	2	3	4	5
20. MBA of B-school X is intensively advertised.	1	2	3	4	5

21. The ad campaign of MBA of B-school X seems very expensive compared to the campaigns of competing B-schools.	1	2	3	4	5
22. The ad campaign for MBA of B-school X is seen frequently.	1	2	3	4	5
23. My friends strongly advised students to study MBA in B-school X.	1	2	3	4	5
24. My friends advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
25. My relatives advocate more for MBA of B-school X than competing B-schools.	1	2	3	4	5
26. My relatives strongly advised students to study MBA in B-school X.	1	2	3	4	5

C. To indicate how you evaluate MBA of B-school X in each pair of adjective, please circle one answer in each row. For example circling "1" means you have very positive evaluation of B-school X and circling "5" means you have very negative evaluation of the school. You may circle any number in the middle to indicate your evaluation.

In my opinion, MBA of B-school X is……

Very good	1	2	3	4	5	Very bad
Very favorable	1	2	3	4	5	Very unfavorable
Very pleasing	1	2	3	4	5	Very unpleasing
Very acceptable	1	2	3	4	5	Very unacceptable
Extremely likable	1	2	3	4	5	Extremely unlikable

D. To indicate how much you agree or disagree with **each statement**, please circle one answer. You may "strongly disagree", "disagree", "neither disagree nor agree", "agree" or "strongly agree" with each statement.

Statements	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1. B-school X offers very good quality MBA program.	1	2	3	4	5
2. B-school X offers MBA of consistent quality.	1	2	3	4	5
3. B-school X offers very reliable MBA.	1	2	3	4	5
4. B-school X offers MBA with excellent features.	1	2	3	4	5
5. MBA from B-school X is good value for money.	1	2	3	4	5
6. I consider admitting into B-school X for MBA is a good decision.	1	2	3	4	5
7. MBA students get much more from MBA of B-school X than what they paid for it.	1	2	3	4	5
8. I trust MBA from B-school X.	1	2	3	4	5
9. The MBA from B-school X has credibility.	1	2	3	4	5
10. Getting admission in MBA of B-school X will be students' pride.	1	2	3	4	5
11. When I think of MBA, B-school X is one of the B-schools that come to mind among the competing B-schools.	1	2	3	4	5
12. I can quickly recall the symbol or logo of B-school X.	1	2	3	4	5
13. Some characteristics of B-school X come quickly to my mind.	1	2	3	4	5
14. If a student need to change B-school X, there are other good business schools to choose from.	1	2	3	4	5
15. Student would probably be happy with MBA of other business schools.	1	2	3	4	5
16. Compared to B-school X, there are other B-schools with which student would probably be equally or more satisfied.	1	2	3	4	5
17. Compared to B-school X, there are not many other B-schools with which students could be satisfied.	1	2	3	4	5

E. The following questions are for background purpose only. Response will be kept confidential.

Note: For the following questions, please tick (√) answer that describes your current situation.

a) What programs are you teaching or involved in? (Tick in all appropriate answers)

MBA [ ] EMBA [ ] MBA evening [ ]
Other Maters level [ ] Any Bachelor level [ ]

b) What is your sex? Male [ ] Female [ ]

c) What is your age?

21 – 40 years old [ ] 41 – 50 years old [ ] 51 – 60 years old [ ]
Above 60 [ ]

d) In which school / college you are involved in? (Tick in all appropriate answers)

ACE [ ] APEX [ ] KUSOM [ ] Whitehouse [ ]
Others specify…….. [ ]

e) What is your academic position?

Professor	[ ]	Associate Professor	[ ]
Assistant Professor	[ ]	Lecturer	[ ]
Teaching / research assistance	[ ]	Visiting faculty	[ ]
Other Specify….	[ ]		

f) What is your executive or managerial position? (Ignore subtitle such vice, assistant, managing and executive etc).

Dean	[ ]	Principal	[ ]	Director	[ ]
Head of Department	[ ]	Coordinator	[ ]		
Other position (Specify…….)		[ ]		No executive role	[ ]

Thank you very much for your cooperation