AN EMPIRICAL STUDY IN BRAND IMAGE FACTORS THAT INFLUENCE STUDENTS BEHAVIOUR IN UNIVERSITI UTARA MALAYSIA

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**MASTER OF SCIENCE MANAGEMENT
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Abstrak

Tujuan kajian ini adalah untuk mengkaji gelagat pelajar terhadap imej jenama Universiti Utara Malaysia (UUM) setelah mendapat pentauliahan. Di dalam kajian ini, dimensi imej jenama diwakili oleh personaliti jenama dan identiti jenama. Manakala, dimensi gelagat pelajar pula diwakili oleh faktor kepuasan, jangkaan, prestasi dan pemikiran semasa belajar. Responden kajian ini adalah para pelajar UUM yang terdiri daripada pelajar siswazah dan pasca siswazah. Sebanyak 379 soal selidik telah dijadikan data untuk dianalisis dengan menggunakan perisian SPSS versi 24. Data diuji dengan menggunakan teknik statistik deskriptif, analisis faktor, analisis kebolehpercayaan, analisis korelasi Pearson, dan analisis regresi berganda bagi menjawab persoalan kajian dan mencapai objektif kajian ini. Keputusan kajian ini menunjukkan bagi mencapai kepuasan dan jangkaan pelajar dalam gelagat mereka, dimensi imej jenama iaitu keseronokan, ikhlas, kecanggihan, kecekapan, kelasakan dan identiti menjadi punca pengaruh terhadap hubungan itu. Melalui ujian korelasi, hasil kajian mendapati bahawa terdapat hubungan positif secara signifikan antara dimensi imej jenama terhadap gelagat pelajar. Melalui ujian regresi berganda pula, keputusan analisis data menunjukkan bahawa dimensi ikhlas, kecekapan dan identiti merupakan faktor utama bagi gelagat pelajar. Oleh itu, pengurusan universiti perlu memperkuatkan imej jenama mereka melalui elemen tersebut. Melalui ujian regresi berganda ini juga mendapati bahawa dimensi keseronokan, kecanggihan dan kelasakan tidak mempunyai hubungan signifikan terhadap gelagat pelajar. Ini menunjukkan bahawa pengurusan universiti boleh mengurangkan kos dengan tidak menekan imej jenama mereka menggunakan dimensi keseronokkan, kecanggihan dan kelasakkan kerana ia tidak sesuai dengan universiti. Bagaimanapun, pengurusan universiti boleh menggunakan dimensi tersebut dengan inovatif untuk mempengaruhi gelagat pelajar. Kajian ini boleh digunakan oleh pengurusan universiti dalam memperbaikkan imej jenama mereka untuk mempengaruhi gelagat pelajar dimasa akan datang.

Kata Kunci: pentauliahan universiti, imej jenama, personaliti jenama, identiti jenama, gelagat pelajar

Abstract

The purpose of this study is to examine student behaviour towards brand image of Universiti Utara Malaysia (UUM) after awarded accreditation. In this study, the dimensions of brand image represented by brand personality and brand identity. Meanwhile, the dimensions of student behaviour represented by the factor satisfaction, expectation, performance and thought about study time. Respondent of this study are UUM student which are undergraduate and postgraduate students. The total of 379 questionnaires outcomes, has been analyse by using SPSS software version 24. Descriptive analysis, factor analysis, reliability analysis, Person's correlation analysis and multiple regression analysis has been used to answers research question and to achieve the research objective in this study. Result of this study shows that to achieve student's satisfaction and expectation in their behaviour, the dimension of brand image which are excitement, sincerity, sophistication, competence, ruggedness and identity caused effect against that relationship. Through the correlation test, the study found that there are positive significant relationship between the dimensions of brand image toward student behaviour. Meanwhile, according to multiple regression test, the result shows that the sincerity, competence and identity dimension became the major factor influence the student behaviour. Therefore, the university management should strengthen their brand image through these elements. Through multiple regression test also were resulted the excitement, sophistication and ruggedness dimension not have a significant relationship towards student behaviour. This shows that the university management could cut cost by not emphasize their brand image by excitement, sophistication and ruggedness dimension because these dimensions were not suitable for a university. However, the university would innovatively using the dimensions for influencing student behaviour. This study can be used by university management in improving their brand image to influence the student behaviour in future.

Keyword: university's accreditation, brand image, brand personality, brand identity, student behaviour

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Thank You,

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Table of Contents

List of Tables

List of Figures

List of Appendices

List of Abbreviations

AACSB	Association to Advance Collegiate School of Business
AMBA	Association of Master of Business Administration
EFA	Exploratory Factor Analysis
KMO	Kaiser-Meyer-Olkin
PAF	Principal Axis Factoring
PhD	Doctor of Philosophy
SPSS	Statistical Package of Social Science
UUM	Universiti Utara Malaysia

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Behaviour refers to the way a person or individual acts, which can be repeated, observed, and measured (Bicard & Bicard, 2014). In another context, the definition of behaviour is "any perceptible obvious development of the living being for the most part taken to incorporate verbal behaviour and additionally physical developments" (Bergner, 2011). As indicated by the definition, behaviour is basically a kind of noticeable physical movement; for example, a lady saying "hi", a person raising his hand, or a pigeon pecking a plate. If we are to describe behaviour, the activities involved should be emphasised. An example can include Adam talking with his friend during class. However, we do not state the internal processes, feelings, or personal motivation such as the action of getting his friend's attention when Adam wishes to talk to him during class. According to Guez and Allen (1998), behaviour is characterised as the manner in which a person acts or behaves. Behaviour can sometimes be shown in a situation to a person, a phenomenon, or an object. It is the way the person behaves himself/herself, and can be found in the path in which one treats others or handles objects or society. Thus, the point is the technique of the person behaviour towards society, object or people, either in the form of good or bad deeds. However, to conduct good or normal behaviour, an organisation will continuously prevent bad behaviour.

For this study, the researcher has narrowed down the different types of behaviours specifically into individual or consumer behaviour, as the study focuses solely on

student behaviours. In the academic field, a college or a university is a form of business that concerns its clients, who bring about expanded profitability, and higher education establishments that look to draw in and hold their clients (which, in this case, is the students) are inclined to also treat their customers well (Boyd, 2012). According to Sheth (1985), the history of consumer behaviour is very much interlaced with the historical backdrop of marketing thought. From his research, he followed the recorded reliance and faithfulness of consumer behaviour on the practice and discipline on marketing field. He then estimated the rising patterns in consumer behaviour research and hypothesis, as a result of new and developing schools of marketing thought.

On the other hand, Solomon, Russell-Bennett, and Previte (2012) stated that consumer behaviour can be characterised as the physical activity and management development required in getting, assessing, utilising, and discarding services or products. This definition states that it is not only the purchasing of service/product that gets consideration in consumer behaviour, but the practice also begins even before the products have been acquired or purchased. In this study, consumer behaviour is an investigation of how the students as the customers make their decision to spend their available resources (effort, time, and money) or utilise the related perspectives (How much do they pay? What do they get? How is their behaviour?) towards the university. Thus, the university needs to find out what is the circumstance in their management that may influence student behaviour. One of the matters that the university consequently set up is their brand management. As stated

2

by Alves and Raposo (2010), the brand image of the university influences student behaviour.

In marketing management, brand is a symbol, name, or mark that distinguishes an organisation from others (Aaker, 2009). Image is a complete impression that an individual or a person has about an item (Kotler & Fox, 1995). Thus, brand image is how potential or existing consumers become aware of and view a brand (Keller, Parameswaran, & Jacob, 2011). In addition, brand image is how and what consumers perceive or think (impression) about the specific brand in their attention. Every organisation strongly desires to create a position for their brand that will be seen and kept in the customers' minds for a longer duration. Therefore, brand image is a crucial element for the organisation to eventually form their brand in the mind of their consumers (Keller et al., 2011). According to Biel (1993), the organisation will increase their sales if they gain a positive brand image, but if their brand image is negative, they will gain contrasting results. This scenario happens when the consumer is able to personally assess the quality, usability, and the durability of the product or service, and perceive the value of the product or service. Therefore, while managing their brand image, every organisation should try to be realistic in gaining a good brand image.

According to Heylen, Dawson, and Sampson (1995), to measure the brand image towards consumer behaviour, there are two facets that can be taken into consideration, including brand identity and brand personality. The scholars defined brand identity as explicitness, which is drive, rationality, and cognitive from the part of the brand that deals with reasoning and thinking, while brand personality is

3

implicitness, which is drive, irrationality, and emotion from the part of the human brain that connects cognitive thoughts with emotions and feelings. Becker and Palmer (2009) stated that the brand identity of the university would be the students' views and impression towards the university brand. It is also conveyed from various aspects, including the brand name, logo, or tagline of the organisation (Aaker, 1996). For the university's brand identity, it derives from anything that the students have visualized of the university brand. Rauschnabel, Krey, Babin, and Ivens (2016) stated that a university's brand personality refers to the qualities, emotions, and feelings of the university brand towards student perspective. Through brand personality, the university can be everything that their brand promotes them to be. According to Aaker (1997), brand personality is the consumer's view towards the brand as a person. Every student has their own feelings and personal assumptions towards the university. Therefore, the brand identity and brand personality of the university should be considered to measure the university's brand image.

The study on marketing within universities or higher learning institutions has become a global phenomenon and widely discussed by researchers. The brand image of universities is essential for the management to develop a competitive advantage. This is in line with Landrum, Turrisi, and Harless (1998), who stated that it is crucial for every university or higher learning institution to establish and maintain their brand image in order to create, develop, and sustain their competitive advantage in an increasingly competitive market. According to Alves and Raposo (2010), a university's brand image is an influential factor that attracts the students as their customers. Indirectly, one purpose of brand image to the universities or higher

4

learning institutions is to attract sponsors and for any company to undertake contracted research and development (Landrum et al., 1998). In this sense, it shows the importance of brand image to universities or higher learning institutions.

The influence of the university's brand image has been studied by plenty of researchers. According to Alves and Raposo (2010), a university's brand image has affected student behaviour in terms of how they view the university, what they think about the university, their perception towards the university, and what influenced them to choose the university. Student behaviour correlates with the university's brand image and reflects positive and negative results (Merchant, Rose, Moody, & Mathews, 2015). The scholars stated that when positive results are achieved, the students will show how proud they are of the university by placing university's stickers on their motorcycle or car, telling people about their university, and convincing others to study at their place. In this study, the researcher assumes that the accreditation is one of the factors for the university to gain its positive brand image. The university's accreditation occurs as a development of its quality review and quality improvement (Eaton, 2009). Thus, an accreditation will provide the quality of a university's brand image and acquire good perception from the students (Miles, Grimmer, & Franklin, 2016).

Aurand, Gorchels, and Judson (2006) stated there are four key elements that affect a student when choosing a university to attend. They are reputation or image, location, cost, and the offered courses. The achievement of accreditation awarded by International Accreditation Associations only proves that the institution has met a high level of quality assurance and demonstrates that the university has gained high-

5

class reputation and brand image (Miles et al., 2016). Therefore, the university's accreditation has a cooperative relationship with the university's brand image and reputation, which creates the opportunity for the university management to manage their brand image. The purpose to develop the university's brand image is not only to sell its services or products, but also to communicate with people about the 'university's identity' through brand image in order to promote awareness and attraction and create competitive advantage amongst the competitors (Bulotaite, 2003). Thus, accreditation is crucial to a university's brand image.

1.2 Problem Statement

Examples of International University Accreditation in Malaysia include The Association of Master of Business Administration (AMBA) and The Association to Advance Collegiate Schools of Business (AACSB). As stated in Ponzillo (2016), after Universiti Utara Malaysia (UUM) earned the AACSB International Accreditation in August 2016, the Vice Chancellor of (UUM), Prof. Dr. Mohamed Mustafa Ishak, said:

"It is an expression of our high commitment to excellence on various fronts. This recognition by AACSB International is inestimable and will provide UUM vast opportunities to spread our wings further. Attaining the AACSB Accreditation – a feat which required us to bring our best to the fore – is but the start of our assuming the more exacting responsibility of maintaining a very high standard in business education".

An accreditation gives a positive impact to the university's image and encourages students' confidence towards the university. In addition, a university accreditation affects people's (especially the students') perception towards the university's brand

6

image and would improve the university management in order to keep and maintain the its quality (Miles, Franklin, Heriot, Hadley, & Hazeldine, 2014).

Some studies have found that a university's reputation and brand image affect student behaviour (Helgesen & Nesset, 2007). According to Casidy and Wymer (2015), the relationship between the university's brand image and student behaviour measures the student's selection of a place to study, their willingness to deliver positive things about their university to others or recommend it to others, and the student will return to the university to further their education . Nowadays, universities or higher learning institutions play a crucial role in offering their products and services to produce satisfied students. The importance of education has shaped a competition among universities to promote and market their institution to raise student awareness (Duque, 2014). According to Tam (2002), universities or higher learning institutions face various challenges when it comes to overcoming the change in student behaviour. Therefore, it is important for the management of the university or any higher learning institution to identify the dimension of brand image that influences students' behavioural intentions when choosing a place to study.

The university or higher learning institution's brand image becomes an essential factor in attracting students as their customers, as well as to stand out against other competitors. Severi and Ling (2013) stated that building a strong brand image helps consumers abbreviate their decision-making, as well as to retain or attract consumers and become different from others. Brand image can be used as a factor to attract people towards the organisation, even when there are other organisations that are often more prominent (Van Der Walt, 1995). On other hand, brand image describes

the desire of consumers to use the brand as signs of success and status (Sevier, 2002). The management of the university or higher learning institution recommends building a strong brand image that would help increase the number of students (as customers), because according to Sevier (2002), the management of universities or higher learning institutions are faced with the challenges of promoting their organisation. Thus, they should execute or develop their marketing programmes to build stronger brand image as a way to strengthen their student recruitment process.

The Malaysian Ministry of Higher Education recently explained that the reduction in the provision of higher education in Budget 2017 is in line with the planning under the Malaysia's Education Development Plan 2015-2025. The Minister of Higher Education of Malaysia stated that the plan coincides with the action to reduce the dependence of Higher Education Institutions on the government, which at present is in the range of 80-90% and considered as a dependency that is too high. Accordingly, the higher learning institutions in Malaysia should independently seek additional sources of income as an alternative to becoming an institution of public education that are more flexible, resilient, and sustainable in managing their finances. At the same time, this will give a wider and more equal opportunity to universities to collaborate with other industries for mutual benefit. The overall Budget 2017 for the Ministry of Higher Education has been reduced by 9.3 per cent from the previous year, but of this total expenditure, development has been increased from RM1.6 billion in 2016 to RM2.6 billion in 2017, an increase of 63.6 percent (Source: Malaysia Budget 2017 Report, Ministry of Finance Malaysia).

University	2015 RM	2016 RM	Change %
	8,753,564,300	7,311,337,500	-16.48
Universiti Malaya (UM)	638,115,900	463,905,000	-27.30
Universiti Kebangsaan Malaysia (UKM)	487,693,300	512,327,900	5.05
Universiti Sains Malaysia (USM)	654,208,400	542,093,000	-17.14
Universiti Putra Malaysia (UPM)	495,830,100	439,279,000	-11.41
Universiti Teknologi Malaysia (UTM)	497,947,100	415,644,000	-16.53
Universiti Utara Malaysia (UUM)	301,811,800	243,522,000	-19.31
Universiti Islam Antarabangsa Malaysia (UIAM)	548,515,300	504,020,000	-8.11
Universiti Malaysia Sarawak (UNIMAS)	197,874,100	195,787,000	-1.05
Universiti Malaysia Sabah (UMS)	379,902,200	315,961,000	-16.83
Universiti Pendidikan Sultan	194,171,900	153,827,000	-20.78

Figure 1.1

Malaysian Budget 2016 Report for Higher Learning Institutions in Malaysia (Source: Malaysia Budget 2016 Report, Ministry of Finance Malaysia)

Based on Figure 1.1, the figure shows that the budget for the year 2016 to the Ministry of Higher Education for all public institutions in Malaysia had mostly been decreased. This is a continuous two years whereby the budget for higher learning institutions have been reduced by the Ministry of Finance Malaysia. This becomes a challenge to universities to survive, as they have to seek their own additional sources of income. Thus, to face this challenge, universities should strengthen their brand image in order to gain customer (student) confidence.

According to Boyd (2012), colleges and universities are a form of business concerning their clients who normally bring about expanded profitability for businesses. Higher learning establishments that wish to draw in and retain their clients (which in this case is the students) should also treat their customers well. Brand image is an influential instrument that can attract consumers by encouraging their behaviour with various strategies that would make them loyal to one brand (Zhang, 2015). Thus, the brand image of a university may influence student behaviour. For Alves and Raposo (2010), their research on the influence of university image on student behaviour measured student behaviour in recommending a university to others by telling positive things about the school or that they would return to further their study based on the university's brand image. In this sense, a university's brand image is an important factor that encourages student behaviour. Such a result in evident university-student relationship, where the student who stays possesses a higher level of public relation perception and satisfaction, noted that the student's awareness of brand image could raise good intention student behaviour towards the university, which would in turn increase income and achieve other university objectives (Hung, 2008). Consequently, this study is to examine the relationship of the brand image of a university by its accreditation towards student's behavioural in the university.

This study also focuses on the question of how well a university's accreditation body manages their own brand image. Numerous business university deans are confronted with difficulties of new competitions that are significantly adjusting a previously "domesticated" business university brand (Wilson & Thomas, 2012). According to

Valette-Florence and De Barnier (2013), a good brand will reduce the time used in marketing activities and accelerate customer action in purchasing a good brand compared to other brands. It can also reduce costs on promotional efforts and at the same time increase sales. Therefore, it is a challenge for universities to strengthen their brand image in order to be different than their competitors, as all organisations need to have a deeper comprehension of customer behaviour in a progressively competitive market field and instruct customers about the brand image to develop or improve marketing strategies.

1.3 Research Question

Based on the issues and problems discussed above, the following research questions are formulated:

1. Is there a positive significant relationship between brand image and student behaviour?

2. Which dimension of brand image influences student behaviour?

1.4 Research Objective

The main purpose of this study is to examine the university brand image's influence towards student behaviour. Specifically, the objectives are as follows:

1. To determine the relationship between brand image towards student behaviour

2. To determine the influence of brand image towards student behaviour

1.5 Significance of the Study

This study is conducted to explore which dimension of the university's brand image that influences student behaviour. Thus, this study will assist the university's management to increase student intake by giving recommendations as to which dimension of the university's brand image should attract students. Furthermore, this study will help the university's management provide a guideline for decision-making in order to form a better marketing strategy, as each of the brand image dimensions provides a different meaning towards the product or service.

1.6 Scope of Study

This study is related to student behaviour towards Universiti Utara Malaysia's brand image on the university's accreditation. The respondents of this study consist of three students' group (i.e. Degree, Master and PhD) level in Universiti Utara Malaysia.

1.7 Definition of Key Terms

The definition of the key terms used in this study is provided below:

Accreditation: The status that has been awarded to eligible universities by The International University Accreditation. There are two types of university accreditation in Malaysia, which are The Association of Master of Business Administration (AMBA) and The Association to Advance Collegiate School of Business (AACSB).

12

Brand: "A unique element that identifies the products or services of one organisation from those of competitors, and contributes to enhancing the value of the offerings" – David Aaker (2009).

Brand Image: "A consumer's perceptions and feelings towards a brand shaped by direct/indirect brand experiences, which capture emotional, cognitive, and sensory aspects" – Kevin Lane Keller (2008).

Brand Personality: "A set of human characteristics that are attributed to a brand name. Brand personality is something to which the consumer can relate; an effective brand increases its brand equity by having a consistent set of traits that a specific consumer segment enjoys" – Jennifer Aaker (1997).

Brand Identity: "The components of the brand (logo, symbol, and name) are created by the business to reflect the value the company is trying to bring to the market and appeal to its customers. A company's brand identity is how that business wants to be perceived by consumers" – David Aaker (1996).

Student Behaviour: "A crucial element of any response to a student's behaviour is identifying that particular student. When it is identified, the management of the university can start to develop and use it to elicit positive behaviours" – Alves and Raposo (2010).

1.8 Organization of Chapter in Thesis

This chapter is the first of the five chapters presented in this thesis. Chapter two gives a general review of the literature on university's accreditation, branding and student behaviour. The dimensions of brand image are brand identity and brand personality was used to measure the brand image also presented. Discussion in chapter two continues with explanations of relationship between brand image and student behaviour. The chapter concludes with a discussion on theories used and research framework.

Chapter three describes the methods used for the study. The chapter begins by reporting the quantitative research method which includes selection of population and sampling, development of the research instrument, data collection procedure and the analysis techniques. Chapter three concludes with research instrument were reliable to use in this study.

Chapter four presents the results of the study. The results were based on the descriptive analysis, factor analysis, reliability analysis, Pearson's correlation analysis, and multiple regression analysis.

Chapter five discusses the interpretation of research findings from chapter four. The findings from this study are compared to those found in past research as reviewed in chapter two. New findings also discussed. Chapter five concludes with a discussion on the limitation of the study and conclusion.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

In this section, researcher will discuss clearly and further details the literature review on university brand image towards student behaviour and the university accreditation. Firstly, researcher will explain the definition on accreditation of the university. Secondly, the dependent variables of this study which is student behaviour. Lastly, the brand image dimensions as the independent variables in this study will explain further details. The relationship between brand image and student behaviour, the theory and research framework also would be stated in this section. The next section would explains the literature review regarding within this study.

2.2 University accreditation

Floyd (2014) describe accreditation in its fundamental concept, accreditation is a quality control component functioning to convince the education's quality received by students. It's not a ranking system but it is essentially a procedure to figure out whether the universities with their program will meeting the quality standard or not. Accreditation is a companion checked on process that the programs or the educational institution itself to undergo to determine if certain criteria are being met. According to Cumming and Zhao (2015), an accreditation means for improves and assure higher quality, assisting organizations using a set of criteria developed by peers. The accreditation assisted to offer the necessary circumstances for an organizations to improve robust, flexible, various and often admired higher

15

institutions. All accrediting associations make and utilize particular standard to guarantee that they achieve threshold expectation of quality and improvement (Krzykowski and Kinser, 2014). Especially for non-profit organization, they are serving as the national supporter for voluntary self-regulation through accreditation (Cumming and Zhao, 2015).

According to Brinza, Zhu, Lilly, Manning, Needleman and Gornik (2016), for the educational institutes or universities, an accreditation is vital because it assist to figure out whether they exceeds or meets the standard of quality. For the students, accreditation helps them to decide acceptable universities or education institutions for enlistment and the same time helps the universities or education institutions in deciding acceptability of transfer credits. Accreditation in educational institutions or universities defined as a 'prestige' shows to community that the educational institutions or universities met and sustaining a high level of standards set by an accrediting agency (Delcoure, Sale and Scalan, 2016). Girma (2015) stated, an accreditation become as a platform for the educational institutions or university show they has the assets to accomplish their goal and presenting proof of the goal being accomplished.

In addition, the accreditation status of the educational institutions or universities will contributes students an indication of general quality and reputation (Gabor and Ing, 2014). The broadening fundamental research by Pitt, Berthon, Spyropoulou and Page (2006), the scholars investigate how well university accreditation such as The Association of Master of Business Administration (AMBA) and The Association to Advance Collegiate Schools of Business (AACSB) gives impact and importance to the university in deal with their brands. The findings of the research proves that an

16

accreditation directly gives a good reputation and perception from the people through the university's brand image. Miles, Grimmer and Franklin (2016) stated, one possible important strategy to response regarding the university to gain better comprehend and conceivably more adequately deal with their brand image value to their customer and stakeholder, including employer, faculty, parents, and students among others by market the university brand image through university accreditation with at least one of the worldwide international accreditation certifying. None of the two noteworthy accreditations (AACSB and AMBA) are fundamentally unrelated alternatives and some university credibility get to be authorize by each of the two in this manner looking to upgrade their universal status. Thus, theses verifies the importance of accreditation to the educational institution or universities.

Since year 2016, there are 20 public universities, 37 privates universities, 20 universities colleges, 418 private colleges and 7 international branch campuses in Malaysia (Sources: Ministry of Higher Education Malaysia). So, each university or educational institution should have their 'stand out' benchmarks brand image to compare with others competitors (educational institutions). An accreditation would be one of the factor for a university or educational institution brand image to become extraordinary. In other word, accreditation can promote to a university or educational institution the competitive advantage in their brand image. The executive vice president and chief accreditation officer of AACSB International, Robert D. Reid said, "AACSB provides internationally recognized, specialized accreditation for business and accounting programs at the bachelor's, master's, and doctoral level. The AACSB Accreditation Standards challenge post-secondary educators to pursue excellence and continuous improvement throughout their business programs.

17

AACSB Accreditation is known, worldwide, as the longest standing, most recognized form of specialized/professional accreditation an institution and its business programs can earn. AACSB Accreditation also represents the highest achievement for an educational institution that awards business degrees." (Scherberger, 2013).

2.3 Student behaviour

In this study, students are regarded as the university's customer. Customer is defined as a person who buys goods or services from a shop or business (The Oxford English Dictionary). According to Bunzel (2007), students paid their fees and it made them as customers. Thus, in order to overcome their consumer behaviour requirement, the university or educational institution need to fulfil their student's needs and wants (as their customer). Hence, through understanding the behaviour of the students helps university in better qualifying their positioning strategy. This can be made through a clear identification of student behaviour because university need to position themselves and focus on their strengths to become excellent (Petruzzellis and Romanazzi, 2010).

In expanding rivalry among universities or educational institutions, its responsibility of the management to identify the factors for put more effort in attract student's interest in making choice. Based on Mazzarol, Soutar and Thein (2000) study, the most essential aspect in student making their choice is the opportunity for them in future employment. On the other hand, location, socioeconomic status, student ability, cost considerations, financial aid and institutional attributes become the factors that influenced student behaviour in making choice (Baksh and Hoyt, 2001).

18

According to Pratt and Evans (2002) study, the elements affecting student behaviour are university's ranked, academic reputation, geographic location, cost, and availability of a program. Moreover, Kotler and Fox (1995) stated student behaviour effect the university or educational institution since the student is the person who decide either to enrol or apply.

The students has become the actual customers for the university or educational institution in educational marketing (Eagle and Brennan, 2007). New study were attempting to comprehend the student behaviour as the student became important for university or educational institution. In Gillespie Finney and Zachary Finney (2010) study, as the student become important, the university management should identify the student demand and the way a university can satisfy student's need and want by planning strategies to rise the student satisfactions. Furthermore, Pop, Bacila, Moisescu and Tirca (2008) described the related information about student behaviour, the management of the university should identify the factors that impact their student satisfaction. In addition, the student performance and behavioural drivers also should be considered in order to manage the student behaviour in university. In order to understand the student behaviour, a university can use the five stages in consumer behaviour that are searching information, purchasing product or service, using, evaluating and disposing (Enache, 2011). By using the five stages (searching, purchasing, using, evaluating and disposing) in consumer behaviour, the management of the university or educational institution can create an opportunity to identify which stages need to be improve in order to satisfy student's need and want. For example, Beerli Palacio, Diaz Meneses and Perez (2002) consider that student satisfaction is an effective response, centred on comparing the result of the service

19

(education) with some standard set prior to the purchase (fees) and measured during or after consumption. Therefore, after the weakness has been detected, the university management could improve their strategies properly without wasting time and money.

On the other hand, according to Illias, Rahman and Razak (2008), one of the function of perceiving a performance and relative level of expectation is the consumer satisfaction. The quality of educational institution is strongly associated with student satisfaction (Jiewantoa, Laurensb and Nellohc, 2012). Kotler and Armstrong (2011) stated that, based on individual expectations, satisfaction is a feeling of excitement that results from evaluating the performance of product or service. Student satisfaction will influence the student concern about their study (Khan, Ahmed, and Nawaz, 2011). To identify whether students satisfy with the service provided by university or educational institution, it can been proved by the effort of student towards their study. Customer (student) would shows their good behaviour if the organization (university or educational institution) perform excellent service (Naik, Gantasala and Prabhakar, 2010). But, the university or educational institution should know the method to handle the student behaviour. According to Ling, Chai and Piew (2010), to concentrate high competition among higher education, the university or educational institution should observed the student satisfaction to increase the positive expectation from the student as their customer toward them. Schiffman and Kanuk (2010) illustrated that, satisfaction is the idea of explanation declaring that the comparison between consumer's perception and expectation.

20

In addition, student satisfaction would assist student in developing their knowledge, skill and self-confidence (Malik, Danish and Usman, 2010). According to Dib and Alnazer (2013), to maintain and attract student in university, the university's management should take students behaviour as a crucial thing in order to satisfy student's need and want.

2.4 Branding

According to Crosby and Johnson (2001), branding is the way of 1880s company with their first logo creation that still famous until today such as Quaker Oats, Campbell's soup and H.J. Heinz. Instead of the packaging in the market, these brands were formed to make the customers familiar with the products in particular. But, nowadays the brands not only exhibits about the logo, it still exists to create familiarity, there is much more that can be read into the brand than simply a name. Miller and Muir (2005) describes the definitions of brands as "the intangible sum of a product's attributes: its name, packaging, and price, its history, its reputation and the way it is advertised". The goals of branding is to achieve brand equity thus brands create the brand equity and value for the company (Aaker, 2009). Crosby and Johnson (2001) stated brand equity as different people describe the different perspective towards one thing. Therefore, it is hard to specify a definition of brand equity also to find a way to measure brand equity. On the other hand, Taylor, Celuch and Goodwin (2004) stated that brand equity can be measured by the concept of consumer attitude and behaviour toward the brand because according to Aaker (2009), brand equity as a set of assets that provided the value of the product were strongly connected with the behavioural and attitudinal loyalty.

21

According to Bulotaite (2003), making a brands is the process of developing, building and managing the images made with the brand. As mentioned previously, managing a brand not only about the familiarity but there are another component that could be discussed and described such as consumer behaviour towards the brand. Fournier (1998) stated there are similar ways as the interrelationship between people in order to view the relationship between customer and brand. Dowling (2002) also provided the same assumption regarding this relationship because some instances of customer form kind of relationships with the brand. Therefore, there are relationship between the brand and consumer behaviour.

2.4.1 Brand image

Brand is interpreted to be a personal mark, sentence, word, logo or mixture of these items which is utilized by an organization to differentiate their product or service with competitors in the market. Van der Walt (1995) describes a brand as "brands embody dimensions such as the logo, design, smell, shape, sound, colour and communication – these factors all differentiate the brand, although some are often more prominent than others". Branding is a complex model, and it became a crucial in marketing field. But, brand management is a wide concept which related with various ideas. According to Rosenbaum-Elliott, Elliott, Percy and Pervan (2015), brand management offer manageability and development for an organization with gives methodology to the organization to expand the value of the brand in long-term period. Thus, a brand describe the experience and knowledge of consumer within the particular brand.

In brand management, brand equity is an important part with broad scope and brand image was a part of the brand equity in delivering the value of a brand. Zhang (2015) stated, for the brand equity, the key driver is the brand image which concerning on customer's awareness and perception about the brand and brand image deals with current or instant consumer's perception. Therefore, brand image is the consumer's perspective of a specific brand.

Brand image has been defined in various definitions and every definitions is grounded on its formulation on numerous features. According to Keller (1993), brand image is awareness about a brand as reflected by the brand communion held in customer's minds and with the same concept Aaker (1997) defines brand image as a value of brand that organized in meaningful way. Brand image is the present view of the consumer about a specific brand and it reproduces what the currently value of brand that exist in consumer's minds either subjective or objective. Brand image also create the basis direct brand experience of customer towards the product or service (Koubaa, 2008). Thus, consumer's perception while purchasing a brand transforms into the brand image because they are beliefs that a brand would create the basis for brand image. Brand image have passionate elements added to it because it can spread to others by the surrounding customer environment factors such as advertising, usage review, and word of mouth (Biel, 1992). It often automatically developed and cannot be create because it is about consumer's mentality towards the value of the brand received by them for example fame, functionality, ease to use and product's appeal. The character of the company or organization in the consumer's minds also can affect and shape the brand image. This matter usually form by the company's internal or external elements such as company's mission, attractive slogan that

23

promotes brand's key value, recommendation, positive peer review or corporate social responsibility. All of these elements indirectly gives stimulant against branding and it also integrated while consumer measuring brand image (Malik, Naeem and Munawar, 2012). The company or organization can take these opportunity to shape the positive perception and brand image to the customers but the customer's perception is subjective and may be differ between individuals.

According to Keth (2016), as metaphor people say "products are made by companies and brands are made by customer". When a customer purchasing a product or service, actually they are expect more like, "they buying brand over a generic product". So, the company or organization should aware also always retain the positive perception and brand image. For example, the company can use communication tools such as packaging, advertising and promoting because these communication tools would become a message that can assist a company to promote positive brand image to customer and at the same time can improve the brand value (Malik et. al, 2012). Therefore, for marketers, whatever their company's marketing strategies are, the main purpose of their marketing activities is to influence consumer's perception and attitude toward a brand, establish the brand image in consumer's mind, and stimulate consumer's actual purchasing behaviour of the brand, therefore increasing sales, maximizing the market share and developing brand equity (Zhang, 2015).

2.4.2 Brand identity

According to Aaker (1996), brand identity is about how the brand wants to be perceived by the consumer. Meanwhile, the brand image is how exactly the brand

24

perceived by the consumer. In other word, brand identity is an aspirational of people towards the brands. Aaker (1996) also stated brand identity would delivers the meaning, direction and purpose for the brand. To differentiating the brand from competitors, the strong brand identity helps in developing trust by the customer based on how customer experienced the brand (Ghodeswar, 2008). Therefore, researcher assumed brand image similar with brand identity because both kindly likes implies a promise to the consumer.

Aaker (1996) describes there are four brand identity perspective (brand as a product, organization, person and symbol) because of the brand is more than just a product. Figure 2.1 presents the brand identity planning model by David Aaker (1996). Brand identity planning model firstly started with strategic brand analysis which are the brand should be differentiated by customer analysis, competitor analysis and self-analysis. Then, in the identity system stage, the brand identity could been built by considered the brand as a product, organization, person and symbol. According to Ghodeswar (2008), the four elements on the brand identity system stage help the process to making a brand to be very different with each other thus help to guide strategy for a brand differentiate, clarify and enrich an identity. Then, the next stage is brand identity implementation system guide the options of how implementation should be performed through the positioning, execution and tracking process.

STRATEGIC BRAND ANALYSIS

Customer Analysis	Competitor Analysis	Self-Analysis
Trends	Brand image/identity	Existing brand image
Motivation	Strengths Strategies	Brand Heritage
Unmet needs	Vulnerabilities	
Strengths/capabilities		
Segmentation		Organization Values

BRAND IDENTITY SYSTEM

BRAND IDENTITY

Brand as Product	Brand as Organization	Brand as Person	Brand as Symbol
Product scope	Organization Attributes	Personality	Visual imagery
Product attributes	(e.g innovation	(e.g. genuine	metaphors
Quality/value	consumer concern	energetic, rugged)	Brand Heritage
Uses	trustworthiness)	Brand customer	
Users	Local vs. global	relationships	
Country of Origin		(eg. friend, adviser)	

VALUE PROPOSITION
Funtional Benefits   Emotional Benefits   Self-expressive benefits

CREDIBILITY
Support the other brands

BRAND-CUSTOMER RELATIONSHIP

BRAND IDENTITY IMPLEMENTATION SYSTEM

BRAND POSITION

Subset of the brand identity and value	To be actively communicated
Value proposition	Providing competitive advantage
At a target audience	

EXECUTION

Generate Alternatives	Symbols and metaphors	Testing

TRACKING

Figure 2.1

David Aaker (1996) Brand Identity Planning Model.

In this study, researcher were highlighted and focused on the brand identity system stages in the brand identity planning model. The brand identity system is a gathering of components which cooperate to brought together, flexible and consistent brand assets that convey the value to the target market effectively (Wheeler, 2012). As describe by Aaker (1996), the first view on the brand identity system is "brand as product". The brand as product is the extended brand associations and product attributes while it's offered extra features that other competitors do not have. Product attribute also related to the brand and included in brand as a product such offer the better services than competitor. Moreover, "brand as organization" is to enhance the brand in the mind of customer by connect with trustworthiness and consumer concern. For example, an organization attribute with innovation which they brings a quality that concern with environment thus this would differentiate the brand with others. Then, "brand as person" is about how people perceived the brand as person with its own personality. The human personality would affect the relationship with same way the personality of the brand would affect the relationship. This point produce more dimensions and it will explains further in the next section. Lastly, the "brand as symbol" that could offers structure and cohesion to the brand. The symbol would easier for the brand gain people recall and cognition. There are three types of example of symbol which are brand heritage, visual imagery and metaphor (Aaker, 1996).

According to Schmitt and Simonson (1997), all of the elements should be considered but not all of the elements are needed to be implemented by the specific brand. The possibility that one or more elements would be used by a brand to described to the

27

consumer or depend on company to express how the brand want to be perceived by people (Wheeler, 2012).

2.4.3 Brand personality

According to Aaker (1997), brand personality is "the human characteristics associated with a brand". Through the human personality and human lifestyle, it's the same way that a brand could be portrayed. Brand personality becomes essential because its will offer the competitive advantage. For gain more mature brands, brand personality is effective scale to been implemented (D'Astous and Boujbel, 2007). Therefore, brand personality is the human characteristics that were applied in a brand for gain more people's understanding, attitudes and perceptions toward a brand.

The initial research by Jennifer Aaker (1997) comes out with "the big five" dimensions of brand personality that were based on human personality. The big five model produced by Aaker (1997) were involved brand personality with sincerity, excitement, competence, sophistication and ruggedness. For several industry, the brand personality framework could be utilized for investigating brand attributes and generalized from across product categories. Then, these were resulted the consumer's experienees with the brand such as unique or exclusive (Rauschnabel, Krey, Babin and Ivens (2016). In every each five dimensions of brand personality, there are more human characteristics were been applicable that similar to the personality of physical person indeed for people more portrayed the brand as a person (Aaker, 1997). These would indirectly influence the customer imagery by how they perceived the brand personally (Rauschnabel et. al, 2016). Therefore, the purpose of brand personality which are to being different with other were been

28

achieved. According to D'Astous and Boujbel (2007), some of the situations that were affected the brand personality are sponsoring activities, age of the brand, and symbol to create identification, were correlate to the way how brand want to be perceived by the people. In addition, the other non-product that were affect the brand personality are celebrity endorser, CEO identification, company image, country of origin, and advertising style or the category of the product it selves that could correlate the people perception.

The Jennifer Aaker (1997) brand personality framework could help company to gain more understanding of people towards the brand and what consumer attitude they have toward the brand. Consuming brand personality could differentiate the product with other competitors and also could affect the people perceived on advertising or marketing activities. Finally, to achieve the brand equity, the company should create the brand personality (Aaker, 2009).

2.5 Relationship between brand image and student behaviour

Ever since the twentieth century, brand image has been contemplated widely because of its significances in constructing brand equity. An organization need a deeper knowledge about consumer behaviour in the increasingly competitive world marketplace for them educate customers about their brand as to create successful market strategies (Zhang, 2015). According to Kusumawati, Yanamandram and Perera (2010), in today education business, the marketing concept is to intend for attract students with using marketing strategies such as effective advertisements, promotions, efficiently communicate with potential students or other marketing tools. The university would receive student awareness if they employ these

29

marketing tools properly. Hence, Goff, Patino, and Jackson (2004) stated that, in student recruitment of the international university, many scholars recognize that marketing plays as important role including strategic marketing (Liu, 1998), relationship marketing (Kittle and Ciba, 2001), the image of the university (Ivy, 2001), marketing universities (Judson, James and Aurand, 2004), direct and database marketing (Tapp, Hicks, and Stone, 2004) and international marketing (Cubillo, Sanchez and Cervino, 2006).

In Azoury, Daou and Khoury (2014) study, it was found that many universities spent sum of money for polish their brand image. This phenomenon become a trend in higher education institution today in improving their brand image and to enhance a positive reputation of the university. Furthermore, reputation and brand image are often flow in the same direction and having strong correlated. According to Cretu and Brodie (2007), organization's reputation has a strong impact on buying decision which may distinguish with other and it's related the influence of brand image. In addition, organization's reputation distinguishing service quality and consumer's perceptions of the product, so it's related to the influence of the brand image (Greyser, 1999). Ho and Hung (2008) stated, one of the factor to identify the achievement of university's marketing strategies in student's choosing the university is by the university's reputation. In Malaysia, the strongest evaluative criteria used by student in selecting place of study are the university or educational institution reputation and image (Ancheh, Krishnan and Nurtjahja, 2007). One of the factor that influence the selection decision by students is the university's reputation (Briggs, 2006). Moogan and Baron (2003) found that reputation is essential for attract student at the 'problem recognition stage' in 'decision making model' from Kotler and Fox

(1995). Certainly, the reputation of the university or educational institution was recognized as the most important element in student's decision making for them choosing the place of further study (Beneke and Human, 2010).

On the other hand, the brand image of a university or does influence the student satisfaction. The research by Palacio, Meneses and Pe'rez (2002) resulted that the brand image is cognitive and affective element that has separate effects on satisfaction and brand image also influence student satisfaction. Hence, its direct impact against expectation, image always seems as one of the factors with greatest influence to constitute the satisfaction with its proving superior indirect influence (Cassel and Eklo'f, 2001). Otherwise, Helgesen and Nesset (2007) stated the student perception of the university's image positively influence the student satisfaction. Directly and indirectly against perceived quality, satisfaction seems influenced by image that tangibly formed by an organization such as advertising, price and word of mouth (Clow, Kurtz, Ozment and Ong, 1997). Furthermore, the research by Clow et al. (1997) on numerous service industries also resulted that for customer perceived quality, organization's image highly influence the customer satisfaction. So, if the student has several knowledge about the university, the university's image indirectly influence the student satisfaction (Arpan, Raney and Zivnuska, 2003). On the other hand, Rauschnabel, Krey, Babin and Ivens (2016) stated that the dimensions of brand personality also might influence the student behaviour in higher education institution but not all of the dimensions convenient for university brand image. Therefore, the university brand management needs to identify which dimension would influence the student behaviour.

Regarding within this study, researcher carried out the student behaviour measurement as suggested by Becker and Palmer (2009) based on Singh, Verbeke and Rhoads (1996). Singh et. al, (1996) stated that the organization could measures their employee behaviour by propensity to leave, job satisfaction, job commitment and job performance which are focus on organizations side. According to Clayson and Haley (2005), other than student as a customer, student also become the internal party that represent the university. Thereafter, Becker and Palmer (2009) adapted the theory by Singh et. al, (1996) to be suitable regarding to measure the student behaviour. Therefore, in this study, researcher adapted the Becker and Palmer (2009) questionnaire for making study on the research area in order to determine the relationship between brand image and student behaviour.

2.6 Theories and research framework

Table 2.1 shows the theories that have been adapted from previous research for this study. The theories that involved were Brand Identity Planning Model (Aaker, 1996), Brand Personality Framework (Aaker, 1997) and student behaviour measurement (Singh et. al, 1996; Becker and Palmer, 2009). Through the theories, the research framework were created for this study. Figure 2.2 presented the brand image as the independent variables. The dimensions for the brand image represented by brand identity and brand personality. This has been suggested by Aaker (2009), the brand identity and brand personality can create brand image in order to achieve brand equity. On the other hand, the dimensions for student behaviour represented the dependent variable were expectation, satisfaction, performance and thought about study time (Becker and Palmer, 2009).

32

Table 2.1

Theory and concept

Theory	Concept
Brand identity Planning Model – David Aaker (1996)	The elements of the brand identity system which are brand as product, organization, person and symbol were implemented to be matching with a university as higher education institution. The elements also were been matched to creates the identity of Universiti Utara Malaysia (UUM) as a university.
	Therefore, the concept that were adapted are, student perceived UUM to be a university with: • Warmth • Closeness • Credibility • World class education • World class research
Brand Personality Framework – Jennifer Aaker (1997)	The five dimensions of brand personality were applied in university brand. This measures the personality of UUM if student look UUM as a person. The extension of brand personality also been retrieved based on Jennifer Aaker Brand Personality Framework (1997) for adapted in this study.
Student behaviour measurement – Singh et. al (1996); Becker and Palmer (2009)	To measure the student behaviour, these dimensions were been adapted in this study. • Expectation: the view, probability, and perception by student toward the university brands. • Satisfaction: whether the student feel pleasant with the university. • Performance: the ability for student reach goal with the university • Thoughts about study time: the student individual sense about their study throughout in a university.

| Independent variable | Dependent variable |

Brand Image

- Brand Identity
- Brand Personality:
  Excitement
  Sincerity
  Sophistication
  Competence
  Ruggedness

Student Behaviour

- Expectation
- Satisfaction
- Performance
- Thoughts about study time
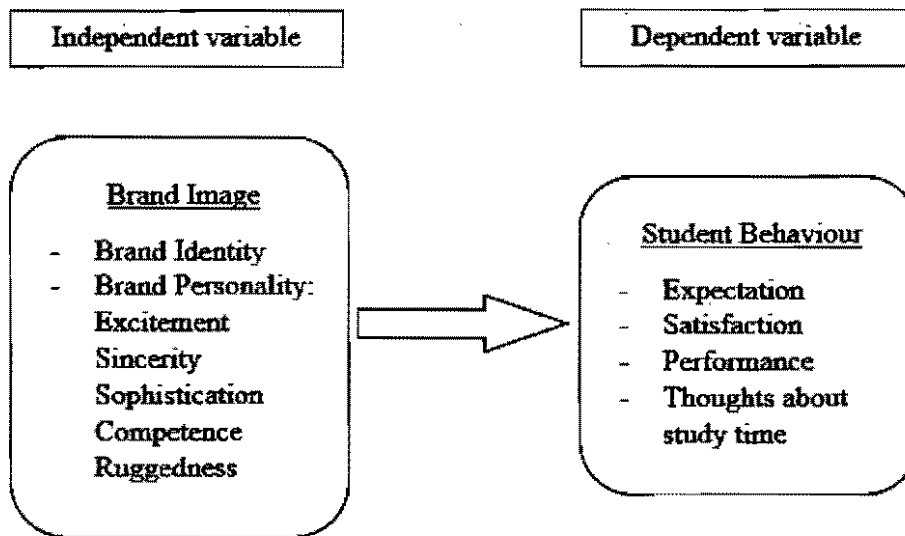
Figure 2.2

Research Framework.

2.7 Hypothesis Statement

Having developed a research framework, then, testable hypotheses can be developed in order to test whether the model framed is valid or not. Sekaran (2003) stated a hypothesis means logically estimated relationship between two or more variables which specified in an appropriate testable statement. In addition, a hypothesis is a theory or an assumption that is provisionally accepted in order to interpret a certain phenomenon and to provide direction for further investigation. The relationships are estimated based on the research framework that were conveyed for the study. Accordingly, the following hypotheses were drawn for this study.

34

H_1a: There is a positive relationship between excitement and student behaviour.

H_1b: There is a positive relationship between sincerity and student behaviour.

H_1c: There is a positive relationship between sophistication and student behaviour.

H_1d: There is a positive relationship between competence and student behaviour.

H_1e: There is a positive relationship between ruggedness and student behaviour.

H_1f: There is a positive relationship between identity and student behaviour.

2.8 Summary

This chapter provided a broad overview of the relationship between brand image of the university and student behaviour. It argued that brand image with its dimensions play an important role to the university that would influence student behaviour. Specifically, literature was presented explaining the brand image represented by brand identity and brand personality and why it would influence the student behaviour. The next chapter focuses on the research design of this study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research strategies and outlines the techniques used in this study. The research questions in this study required data to be collected through quantitative method. The methodology approach of quantitative survey research field study, which has employed in this study, will be discussed and explained. The chapter begins with an overview of research method and followed by the quantitative research design.

3.2 Research Method

According to Sekaran (2003), in order to provide a solution of a research, research method assist researcher to set up in identify the further data collection technique, analyse and interpreting the data. In addition, Zikmund (2003) stated that, to ensure the full control over factors that gives impact to validity of the findings, it is important for the researcher set up and identify the suitable research method to be used in the study. The quantitative design was identified as being suitable for this field of study. Quantitative study were conducted in this study for used as a theoretical lens for interpreting what occurs in the field study. Hence, it allows a better understanding through the data analysed and enables the results to be comprehended over a period of time.

Creswell (2013) mentioned that the quantitative method approach often to be used to help the validity and support the study results. Quantitative study concentrates on

generalizing data towards a groups of people based on gathering numerical data or to clarify a specific problems. Quantitative study accentuate target estimations and the factual, scientific, or numerical investigation of information gathered through questionnaire, survey, and polls, or by controlling previous measurable information utilizing computational methods (Babbie, 2015). In relation, the quantitative method were used in the study aimed to investigate the influence of brand image towards student behaviour. Hence, this study applied a survey method by using questionnaires. The dimensions of brand image became the independent variables while the dimensions of student behaviour which are student expectation and student satisfaction became the dependent variables.

3.3 Quantitative study

This section describes the research method including the design of the research, sampling frame, the research measures, the data collection process, and the procedure involved used in this study. This section also concludes with methods for analysing the data.

One of the objective in this study was to identify the dimensions of brand image of a university that influenced student behaviour. Therefore, the quantitative research is employed. Hence, quantitative research essentially is about collecting numerical data in explaining a particular phenomenon, particular questions that seemed immediately suited to being answered using quantitative method (Creswell, 2013). Through the method, it will help to identify statistically on which dimensions of university brand image that would influenced student behaviour.

3.3.1 Research design

In this study, quantitative research design was employed. According to Punch (2013), quantitative design allows the researcher to collect the data from the respondents in numerical format, to exercise objective judgement, and to achieve high level of reliability and accuracy. Moreover, quantitative design allows the researcher to generalize research findings when the data are based on random samples of sufficient size.

The unit of analysis is at the individual level and the primary data for this study was collected through distribution of questionnaire in this study. Due to the focus of this study is on the dimensions of brand image that influence student behaviour, it is deemed suitable to use students (individual) as a unit of analysis.

3.3.2 Population and Sampling

Population is the group that attract the attention of researchers, which allow researchers to generalize the findings. According to Sekaran (2003), population refers to the entire group of people, events or matters that to be studied by researchers. Meanwhile, sampling is the process of selecting a group of individuals for a particular research who represent a large group of people. Sampling also means selecting a group of people, institutions, places or phenomena to be investigated by researchers. The purpose of sampling is to obtain information about a population (Sekaran, 2003). The next sub-section will explains further about population and sampling in this study.

3.3.2.1 Population

The study population includes all undergraduates and postgraduates students that registered with University Academic Affairs Department in Universiti Utara Malaysia (UUM) on semester February 2016/2017 (A162) and rated as active students. Academic Affairs Department is an authorized department in university that keep the data of registered students in the university. According to UUM Academic Affairs Department, there were 26,204 students registered on semester February 2016/2017 (A162) and rated as active. The distribution of undergraduates and postgraduates students in UUM is presented in Table 3.1.

Table 3.1

Undergraduates and postgraduates students actively registered in UUM (Semester A162).

Level of study	Active student
Undergraduate	21,221
Postgraduate	4,983
TOTAL	**26,204**

Source: *Academic Affairs Department, Universiti Utara Malaysia (March 2017)*

3.3.2.2 Sampling Size and Technique

As it is not practical to collect data from the whole population, a sampling process need to be conducted to determine the sampling size. This to ensure that the portion of data is analysed fairly. A formula invented by Krejcie and Morgan (1970) was employed in this study to determine the suitable sample size. This formula helps to ensure that researchers get the minimum data needed before proceed for the data

analysis. This procedure helps prevent any doubtful or biased results from imbalanced data during the analysis process. According to Krejcie and Morgan (1970), by providing a table, it is greatly simplified the sample size decision that ensures a good decision model. Table 3.2 below shows the table that generalized scientific guideline for sample size decisions.

Table 3.2

Krejcie and Morgan (1970) table.

Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—N is population size.
S is sample size.

Due to the total number of population in this study is 26,204 respondents, respondents were rounded to 30,000. Based on Krejcie and Morgan (1970) table, there are 379 respondents as the sample size for population 30,000. The sample size fits with Roscoe's rule of thumb where a sample size that is larger than 30 and less than 500 is appropriate for most research.

In this study, the stratified random sampling is employed. Stratified random sampling allowed disproportionate sampling and optimal allocation within strata also allows certain groups of interest to be captured. If needed, the researcher may ensure the chosen groups were methodically involved by using disproportionate sampling (Aday and Cornelius, 2006). According to Sekaran (2003), proportionate sampling explains the decisions that made either when there is more variability suspected within a particular stratum or when some stratum, or strata are too large or too small.

Notwithstanding, researcher decided to use proportionate stratified random sampling because the sample is kindly large and target respondents are too general. In order to find the total number of respondents, researcher used the proportionate formula. Proportionate formula were multiply the group number by sample size and then divided by the total number of population. The results for proportionate stratified random sampling is presented in Table 3.3. Therefore, researcher personally distributed 307 sets of questionnaires to undergraduates' student and 72 sets of questionnaires to postgraduates' students.

Table 3.3

Proportionate stratified simple random sampling

Level of study	Number of students	Proportionate (%)	Total number of respondents
Undergraduates	21,221	(21,221 / 26,204) x 100 = 81%	81% x 379 = 307
Postgraduates	4,983	(4,983 / 26,204) x 100 = 19%	19% x 379 = 72
TOTAL	**26,204**	**100%**	**379**

3.3.3 Instrument

Survey is the tools that used by researcher to measures the research variables. The sub-section will discusses further the instruments that was adapted based from the previous research in this study.

3.3.3.1 Questionnaire Development

This section discusses and details the survey instrument that was adapted based from the previous research. All the survey materials were prepared in English and Malay. Each participant in this survey received five pages of questionnaire (with cover letter attached). The survey item used in this study are shown in Appendix A.

There are seven sections with five pages in the questionnaire (refer Appendix A). In section 1, respondents were asked to provide demographic information of themselves. There are ten (10) questions in this section which requested data in

42

following area such as gender, age, hometown, year started studied in UUM, level of study, semester, program studied in high school, what channel their heard about UUM, level of selection to applied UUM, and reason for starting studies at UUM. These demographic variables were measured for descriptive and control purpose. This information is necessary to show that the sample is representative and to ensure that generalizations to the wider population of UUM students can be made.

In section 2, respondents were requested to provide their opinions or views on the statement regarding their expectations through UUM. In this section, there were five (5) items raised and all items were measured in five-point Likert scale which used five choice of answer represent to measure the respondent agreement with ranged from "1=strongly disagree", "2=disagree", "3=fair", "4=agree", to "5=strongly agree".

In section 3, respondents were also requested to provide their opinion or views on the statement regarding the identity of UUM as a university. In this section, there are five (5) items which all items were measured in five-point Likert scale which used five choice of answer represent to measure the respondent agreement with ranged from "1=strongly disagree" to "5=strongly agree".

In section 4, respondents were instructed to provide their opinions or views about their satisfaction on UUM. In this section, there are nine (9) items which all items were measured in five-point Likert scale which used five choice of answer represent

to measure the respondent agreement with ranged from "1=strongly disagree" to "5=strongly agree".

In section 5, respondents were requested to provide their opinions or views on the statement regarding their performance within UUM. In this section, there four (4) items and all items were measured in five-point Likert scale which used five choice of answer represent to measure the respondent agreement with ranged from "1=strongly disagree" to "5=strongly agree".

In section 6, respondents were instructed to provide their opinions or views about their thoughts within their study time in UUM. In this section, there are nine (9) items which all items were measured in five-point Likert scale which used five choice of answer represent to measure the respondent agreement with ranged from "1=strongly disagree" to "5=strongly agree".

The final section of the questionnaire, section 7, respondents were also requested to provide their opinion or views about the statement regarding the personality of UUM (brand image). In this section, there are forty-one (41) items which all items were also measured in five-point Likert scale which used five choice of answer represent to measure the respondent agreement with ranged from "1=strongly disagree" to "5=strongly agree".

3.3.3.2 Measurement Instrument Development

This section discussed the instrument that adapted and used in this study. This section was divided into two parts that represent the dependent variable and dependent variables.

3.3.3.2.1 Student Behaviour

In this study, student behaviour are measured through four dimensions, namely expectation, satisfaction, performance and thoughts about study time. A total of 27 questions were adapted from the previous research. Since the questions were designed in Likert scale, respondents were given five choice of answers. The answer represented by, "1=strongly disagree", "2=disagree", "3=fair", "4=agree" and "5=strongly agree". Table 3.4 shows the items of student behaviour dimensions used in this study.

Table 3.4

Operational definitions and items for student behaviour dimensions

Dimensions	Operational definition	Measures used in the study
Expectation	The expectation of the students about UUM	I felt satisfied when I started my study with choosing to start at UUM.
		Today, I felt satisfied that I started my study at UUM.
		The image of UUM were

		corresponding to my expectations when I started studying here.
		The image of UUM was mainly positive.
		My view towards UUM has changed since I started studying here.
Satisfaction	Focus on student satisfaction level on UUM.	I perceive the high quality of education.
		My education is worth the effort.
		My education is better than most others.
		Sometimes I feel that my studies are a waste of time.
		I am very pleased with my direction of study.
		I perceived the high quality at UUM.
		My university is better than most other.

		I am very pleased with my university.
		I am satisfied with UUM as a place to study.
Performance	To evaluate the performance of students as UUM student.	I feel high degree for me to reach the goals with my studies.
		I have learned a lot from the classes that I participated in.
		I have had problems passing in the classes I have attended.
		I have received good grades in the classes I have attended.
Thoughts about study time.	To identify what students feel and act as long as they become the UUM student.	Within the last year, I had thoughts of changing education within UUM.
		Within the last year, I had thought of changing to an education at another university.
		Within the last year, I often had thoughts of leaving my education.
		I will probably look around for

another education next year.

I will probably look around for another university next year.

I care for what happens to my education.

I care for what happens to UUM.

In my education, I am inspired to do my very best.

At UUM, I am inspired to do my very best.

3.3.3.2.2 Brand Image

In this study, the brand image was measured by six dimensions which concern the identity, sincerity, excitement, competence, sophistication and ruggedness by using 46 items adapted from previous study. Since the questions were designed in Likert scale, respondents also were given five choice of answers. The answer represented by, "1=strongly disagree", "2=disagree", "3=fair", "4=agree" and "5=strongly agree". Table 3.5 shows the items of brand image dimensions used in this study.

Table 3.5

Operational definitions and items for brand image dimensions

Dimensions	Operational definition	Measures used in the study
Identity	The items of brand identity seen to be as measurement for perception student to UUM as a university.	I perceived UUM to be a university with: Warmth. Closeness. Credibility. World class education. World class research.
Sincerity	The part of items from brand personality that determine the student perception reacts toward UUM brand image.	A part of UUM's personality is to be: Down-to-earth. Family-oriented. Small-town. Honest. Sincere. Real.

		Wholesome.
		Original.
		Cheerful.
		Sentimental.
		Friendly.
Excitement	The part of items from brand personality that determine the student perception reacts toward UUM brand image.	A part of UUM's personality is to be:
		Daring.
		Trendy.
		Exciting.
		Spirited.
		Cool.
		Young.
		Imaginative.
		Unique.
		Up-to-date.

		Independent.
		Contemporary.
Competence	The part of items from brand personality that determine the student perception reacts toward UUM brand image.	A part of UUM's personality is to be:
		Reliable.
		Hard working.
		Secure.
		Intelligent.
		Technical.
		Corporate.
		Successful.
		Leader.
		Confident.
Sophistication	The part of items from brand personality that determine the student perception reacts	A part of UUM's personality is to be:
		Upper class.

	toward UUM brand image.	Glamourous.
		Good looking.
		Charming.
		Feminine.
		Smooth.
Ruggedness	The part of items from brand personality that determine the student perception reacts toward UUM brand image.	A part of UUM's personality is to be:
		Outdoorsy.
		Masculine.
		Tough.
		Rugged.

3.3.4 Pilot Test

A pilot test is a test that is conducted with a smaller number of respondents as a logistic testing and is used to check the validity of the measurements before conducting the research on a larger scale or the actual research. According to Cooper and Schindler (2006), during the pilot test, the questionnaire should be piloted with reasonable sample of respondents who come from the target population or who closely resemble the target population.

52

Before the questionnaire were sent for the pilot test, a pre-test was conducted with two individuals consisted the staff and student in the College of Business, Universiti Utara Malaysia. The purpose of the pre-test was to extract feedback concerning the designing, understanding and phrasing of the questionnaire.

In this study, the pilot test was conducted in mid-March 2017. The questionnaire was distributed to thirty students (ten persons from each degree, master and PhD students). According to Bullen (2014), a sample for pilot test around 30 -50 respondents is usually enough to identify any weakness or mistakes in the study. The comments and feedback obtained were subsequently taken into consideration in amending the survey questions. Below is the feedback and action taken to improve the questionnaire.

- For some of the questions, the choice of answers was vague. Changes were made by incorporating many of the suggested word.

- The Likert scale was a bit confusing. To solve this issue, instructions on the Likert scale were clarified further for better understanding.

- Some question were lengthy. So, long-winded questions were shortened.

The Cronbach's Alpha (internal consistency reliabilities) of the study measures from the pilot test are reported in Table 3.6. As shown in Table 3.6, variables for expectation, satisfaction, and performance have unsatisfactory reliability values ranging 0.367 to 0.562. Then, variables for identity, though about study time,

sincerity, excitement, competence, sophistication, ruggedness and personality have satisfactory reliability values ranging from 0.712 to 0.911.

Table 3.6

The Cronbach's Alpha for each research measure from the Pilot Test (n = 30)

Variables	No. of items	Cronbach's Alpha
Expectation	5	0.562
Identity	5	0.750
Satisfaction	9	0.471
Performance	4	0.367
Thoughts about study time	9	0.821
Sincerity	11	0.837
Excitement	11	0.880
Competence	9	0.827
Sophistication	6	0.717
Ruggedness	4	0.712
Personality	5	0.911

3.3.5 Data Collection Procedure

The actual data collection began after pilot study was conducted. Data for this study was collected by researcher with used self-administered questionnaire. The self-administered questionnaire was referred to where the respondents (UUM students) were given the questionnaire personally from the researcher and the respondents answering the questionnaire. Respondents were given duration of time to answer the questions; about ten to fifteen minutes. After the respondent completed answering all

questions, the questionnaire were returned back to researcher. This procedure did not consume much time as all respondents stayed in the campus.

3.3.6 Data Analysis Technique

Data collected through the survey were analysed using SPSS (version 24) program for Windows. Prior to primary analyses, the data were examined for data entry accuracy, outliers, and distributional properties.

3.3.6.1 Descriptive Analysis

Generally, the descriptive analysis explained the basic data on sample profile like age, gender, level of study, status and more. In this study, descriptive statistics were conducted to show the profile of students as respondent examined, which basically include the means and standard deviation. As recommend by Tabachnick and Fidell (2007), in this study, the descriptive presented percentage, maximum, range, mean and standard deviation.

3.3.6.2 Factor Analysis

Factor analysis were conducted to summarize and disclose the information contained in a larger number of variables into smaller number of factors. As argued by Hair, Black, Babin, Anderson and Tatham (2006), items are reduced to common interrelated and meaningful dimensions. Hence, through the common interrelated items, the pattern of association would assist researcher to establish interrelationship of variables that belong together.

55

In this study, exploratory principal axis factoring (PAF) with varimax rotation was carried out to simplify a large number of items to a few representative dimensions or factors. This activity is conducted to test the pattern of correlation among items of variables and to establish the goodness of measures for testing hypothesis (Hair et. al, 2006).

Before conducting factor analysis, there are initial considerations that need to be considered such as data screens and sample size (Field, 2005). Then, researcher needs to consider on the statistical assumptions of Barlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO). Kaiser (1974) stated that, to provide a meaningful basis for factor and present the adequacy of the correlations among variables, Barlett's test should be significant at $p < 0.05$ while KMO values must greater than 0.5 (Field, 2005).

3.3.6.3 Reliability Analysis

Reliability analysis was conducted in evaluating on how dependable the measurement scales that have been obtained from factor analysis. Hence, the reliability of measurement tools by internal consistency was verified by Cronbach's alpha reliability coefficient in order to examine the stability, the consistency and the predictability of each factor. According to Sekaran (2003), in the social science, if the value of Cronbach's Alpha is at 0.6 and above, the factor is generally identified as a reliable value. Moreover, the Cronbach Alpha value that less than 0.60 is considered as a poor reliable and in the range 0.60 and above are acceptable while if

56

the value over 0.80 were considered having a higher and to be good internal consistency (Hair et. al, 2006).

3.3.6.4 Pearson's Correlation Analysis

In order to achieve the objective of the study, Pearson's correlation were used to examine the relationship between dimensions of brand image (identity, sincerity, excitement, competence, sophistication and ruggedness) and student behaviour (satisfaction and expectation).

3.3.6.5 Multiple Regression Analysis

To identify the best forecaster influencing student behaviour in their satisfaction and expectation, multiple regression analysis were applied in this study. In order to achieve the second objective of this study, the dimensions of brand image (independent variables) that are excitement, sincerity, sophistication, competence, ruggedness and identity were tested using multiple regressions. According to Gliner, Morgan, and Leech (2011), in the multiple regression analysis, the independent variables would influence the dependent variables if the value is below the significant level of $p<0.05$. This indicates that no influence between the independent and dependent variables if the value is above the sign value.

3.4 Summary

This chapter discussed the research methodology applied in this study. The measurements of the constructs were adapted from the past literature and research. In this study, a quantitative method was applied. This study also was used survey

instruments to provide additional insight into findings. Moreover, the results of pilot test have shown that the questionnaire used was valid and reliable to access the relationship between brand image and student behaviour. The data analysis and findings of the study will further presented and explained in the next chapter.

CHAPTER FOUR
DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the findings and analysis through statistical methods that have been described in the methodology of the previous research. The first objective of this analysis is to determine relationship between brand images towards student behaviour while the second objective is to determine influence of brand image towards student behaviour. The data analysis involved are descriptive analysis, factor analysis, reliability analysis, Pearson's correlation analysis and multiple regression analysis. In addition, the analyses were based solely on the data furnished by the respondents through returned questionnaires.

4.2 Descriptive analysis

In understanding the characteristics of the respondents, the descriptive analysis were employed. Before researcher proceed to the other analysis, descriptive analysis were used as a first step in analysing data. As mentioned in chapter three, a total 379 respondents were chosen for analysing data process. The respondents were measured through demographic, brand image and student behaviour. Table 4.1 presents the statistic of the respondent background and the in-depth information were presents on next table.

Table 4.1

Statistic of the respondent background

	N Valid	Missing	Mean	Standard deviation	Range	Maximum
Gender	379	0	1.24	.426	1	2
Age	379	0	2.37	.906	3	4
Hometown	379	0	1.09	.282	1	2
Year started study in UUM	379	0	3.06	.445	3	4
Level of study	379	0	1.57	.736	2	3
Semester	379	0	1.61	.794	3	4
Program studied in high school	379	0	2.08	.732	2	3
Types of channel they heard about UUM	379	0	4.39	1.605	6	7
Choice to choose UUM	379	0	2.05	1.063	3	4
Reason of study in UUM	379	0	3.12	1.648	5	6

Table 4.2

Respondent demographics

	Frequency	Percent
Gender:		
Female	289	76.3%
Male	90	23.7%
Age:		
18-20 years old	61	16.1%

21-23 years old	166	43.8%
24-26 years old	102	26.9%
27 and above	50	13.2%

Hometown:

Local	346	91.3%
International	33	8.7%

Year started studied at UUM:

2010 or before	7	1.8%
2011-2013	6	1.6%
2014-2016	324	85.5%
2017	42	11.1%

Level of study:

Degree	307	81.0%
Master	41	10.8%
Phd	31	8.2%

Semester:

first year	217	57.3%
second year	98	25.9%
third year	59	15.6%
forth year	5	1.3%

Program studied in high school:

pure science	87	23.0%
social science	174	45.9%
Art	118	31.1%

Types of channel they heard about UUM:

Television	31	8.2%
Movies	8	2.1%
Newspaper	29	7.7%
family & friends	180	47.5%
tradeshow event	24	6.3%
former student	59	15.6%
others	48	12.7%

Choice to choose UUM:

first choice	150	39.6%

second or third choice	113	29.8%
fourth or fifth choice	62	16.4%
sixth choice or less	54	14.2%
Reason of study in UUM:		
close to home	44	11.6%
the education (program)	157	41.4%
good reputation	38	10.0%
natural environment	40	10.6%
university environment	48	12.7%
Other	52	13.7%

4.2.1 Gender

Refers on the table 4.2 presents that majority of the respondent were female with 289 (76.3%) while the rest were male with 90 (23.7%).

4.2.2 Age

The table 4.2 resulted there were 61 students (16.1%) age range 18 to 20 years old, 166 students (43.8%) age range 21 to 23 years old and 102 students (26.9 %) age range 24 to 26 years old. While the balance of 50 students (1.1%) were aged 30 to 40 years old.

4.2.3 Hometown

Table 4.2 shows the result of 346 students (91.3%) from the respondent were local student while the rest 33 students (8.7%) were international students.

4.2.4 Year started study in UUM

From the table 4.2, mostly students started study in UUM in the range of year 2014 to 2016 with 324 students (85.5%). Followed by the year 2017 with 42 students (11.1%), year 2010 or before with 7 students (1.8%), and in the range year 2011 to 2013 with 6 students (1.6%).

4.2.5 Level of study

In term the level of study, table 4.2 resulted from the respondents, 307 students (81.0%) are degree student while the rest are Master and PhD students with 41 students (10.8%) and 31 students (8.2%) respectively.

4.2.6 Semester

The table 4.2 presents there are 217 students (57.3%) are first year in UUM. Followed by second year student with 98 students (25.9%), third year student with 59 students (15.6%) and forth year or above with 5 students (1.3%).

4.2.7 Program studied in high school

The table 4.2 resulted there were 87 students (23.0%) studied pure science in high school, 174 students (45.9%) studied social science in high school and 118 students (31.1%) were studied art in high school.

4.2.8 Types of channel they heard about UUM

Table 4.2 shows the result of mostly of the respondent heard about UUM through family and friends with 180 student (47.5%). Meanwhile the rest were followed by

63

through former students, others channel, television, newspaper, tradeshow event, and movies with 59 (15.6%), 48 (12.7%), 31 (8.2%), 29 (7.7%), 24 (6.3%) and 8 (2.1%) of students respectively.

4.2.9 Choice to choose UUM

From the table 4.2, 150 students (39.6%) from the respondent choose UUM as their first choice. Then 113 students (29.8%) became the second or third choice, 62 students (16.4%) became the fourth or fifth choice and 54 students (14.2%) became as sixth choice or less.

4.2.10 Reason of study in UUM

In term of the reason of study in UUM, 157 students (41.4%) from the respondent study in UUM because of the education (program of study). Moreover, 52 students (13.7%) have other reasons for them study in UUM. In addition, 48 students (12.7%) and 44 students (11.6%) because of university environment and close to home. Then the rest 40 students (10.6%) and 38 students (10.0%) because of natural environment and good reputation of UUM.

4.3 Factor Analysis

Factor analysis is conducted to disclose and summarize the data contained from larger number of variables into the smaller number of factors. According to Zikmund (2003), the main principle of factor analysis is data interpretation and data parsimony. Therefore, in this case, items are reduced to common interrelated and meaningful dimensions (Hair, Black, Babin, Anderson and Tatham, 2006). Before

64

conducting factor analysis, data has been checked for it normality and it passed the assumption of normality with kurtosis and skewness test. Hence, through the common interrelated items, the pattern of association would assist researcher to establish interrelationship of variables that belong together.

In this study, exploratory principal axis factoring (PAF) with varimax rotation was carried out to simplify a large number of items to a few representative dimensions or factors. This activity is conducted to test the pattern of correlation among items of variables and to establish the goodness of measures for testing hypothesis (Hair et. al, 2006). But, before conducting factor analysis, there are initial considerations that need to be considered such as data screens and sample size (Field, 2005). Then, researcher needs to consider on the statistical assumptions of Barlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO). Kaiser (1974) stated that, to provide a meaningful basis for factor and present the adequacy of the correlations among variables, Barlett's test should be significant at $p < 0.05$ while KMO values must greater than 0.5 (Field, 2005).

In this study, two factor analyses were conducted; one for dependent variables dimensions and one for independent variables dimensions. The dimensions for dependent variables (student behaviour) are expectation, satisfaction, performance and thought about study time while the dimensions for independent variables (brand image) are identity and personality (sincerity, excitement, competence, sophistication and ruggedness). According to Hair et al. (2006), the scholars suggested in determining the number of factors to be extracted, scree plot and eigenvalue test techniques were taken. At scree test plot, the cut-off point at which

65

the pattern of curve has changed to nearly horizontal line will be determined and used as a guideline to find out the optimum number of factors to be extracted while at eigenvalue of factors, the score must be greater than 1. When interpreting the factor, factor loading is checked. Zikmund (2003) stated that, factor loading is a measure of the importance of variable in measuring a factor. In this study, only items not cross-loaded in other factors and with loading 0.50 and above were considered. This action need to be taken because the items which have factor loading above 0.50 considered usable for further analysis and were typically interpreted very high significance (Kinear and Gray, 2001). Instead, the cut-off point for cross loading was set at 0.50 and factor which is higher than 0.50 should be posited for further analysis due to recommendation by Tabachnick and Fidell (2007). According to Yong and Pearce (2013), factor loading is signifying the degree of correlation among the factors of each variables and the objective is to minimize the number of significant loadings and to ensure each variables is related with the only one factor. Lastly, in the rotated factor matrix, factors that have been filtered were interpreted and named depending to the largest values of the factors.

4.3.1 Factor Analysis on Student Behaviour

Originally, there were twenty-seven (27) items used to measure student behaviour. Due to high cross-loading among factors, 11 items (T1, T2, T3, T4, T5, T6, S3, S4, S5, E5 and P3) were eliminated for further analysis. Then, the data were rerun for factor analysis. From the results of the Exploratory Factor Analysis (EFA) on the 16 items after discarded eleven items, three factors were resulted. Each factor should carry at least three items and were not cross loaded (0.50) were accepted and kept for

66

further analysis. Thus, due to the factor loading has been set at 0.50, only two factors were used for further analysis. The results of the principal axis factoring analysis with varimax rotation is presented in Table 4.3. The SPSS output is presented in Appendix B.

Meanwhile, the KMO value measuring adequacy of items resulted at 0.920 and this indicated that the items were correlated and formed common factors. Bartlett's Test of Sphericity was found to be significant at $p < 0.000$ with the Approx. Chi-Square value at 2749.008, indicating the significance of the correlation matrix, and thus provided a reasonable basis for factor analysis.

Furthermore, the eigenvalue of the resulted factors were greater than 1 which explained 58.182% of the variance in the data. Moreover, results of the scree plot (in Appendix B) also provided support for the construction of the two factors. The first factor calculated for 44.072% of the total variance with eigenvalue of 7.051. Factor loading for items in this factor ranged from 0.529 to 0.785. Factor one consist of four items and all of that originally from "satisfaction" dimension. As a result, the factor retain named as "satisfaction".

Factor two with eigenvalue 1.247 was represented five items. Factor loading for items in this factor ranged from 0.524 to 0.641 and accounted for 7.794% of the total variance in the data. This second factor consist of items related to three items from expectation dimension and two from satisfaction dimension. Due to majority of items were from expectation dimension, the factor was named as "expectation". While the factor three was represented by two items with eigenvalue at 1.011. The

factor loading for this factor ranged from 0.703 to 0.824 and accounted for 6.317% of total variance in data. Since there were two items representing this factor, this factor were discarded for further analysis as recommended by Hair et al. (2006).

Table 4.3

Results of Factor Analysis on Student Behaviour

	1	2
Satisfaction		
I am very pleased with my university. (S8)	.785	
My university is better than most other. (S7)	.744	
I am satisfied with UUM as a place to study. (S9)	.597	
I perceived the high quality at UUM. (S6)	.529	
Expectation		
The image of UUM were corresponding to my expectations when I started studying here. (E3)		.641
I perceive the high quality of education. (S1)		.574
The image of UUM was mainly positive. (E4)		.561
I felt satisfied when I started my study with choosing to start at UUM (E1)		.538
My education is worth the effort. (S2)		.524
Eigenvalue	7.051	1.247
Percentage Variance Explained	44.072%	7.794%
Total Variance Explained	58.182%	
KMO	0.920	
Bartlett's Test of Sphericity	2749.008	

4.3.2 Factor Analysis on Brand Image

There were originally forty-six (46) items used to measure brand image. Nevertheless, due to high cross-loading among factors, 3 items (PSi3, I1, and I2) were removed for further analysis. Then, the data were rerun for factor analysis. After eliminating three items, eight factors were formed from the result of the Exploratory Factor Analysis (EFA). However, only six factors were used for further analysis due to the factor loading has been set at 0.50. Each factor that carry at least three items and also not cross loaded (0.50) were accepted then were kept for further analysis. The SPSS output is presented in Appendix B while the result of the principal axis factoring analysis with varimax rotation is presented in Table 4.4.

The KMO value on measuring adequacy of independent variable dimension were resulted at 0.959 and were indicated that the items were correlated and formed common factors. Furthermore, Bartlett's Test of Sphericity was found significant at $p < 0.000$ with the value of Approx. Chi-Square at 10014.835. Therefore, this provide a reasonable basis for factor analysis and indicating the significance of the correlation matrix.

Then, the eigenvalue of the resulted factors were greater than 1 were explained 64.977% of variance in the data. Moreover, the scree plot result also support for the construction of the six factors (see Appendix B). Factor one accounted for 41.817% of the total variance with eigenvalue 17.981. Factor loading for items in factor one ranged from 0.518 to 0.612. This first factor consist of nine items related to seven items from "excitement" dimension and two from "competence" dimension. Due to

69

majority of items were from "excitement" dimension, the factors was named as "excitement".

While for the factor two, with eigenvalue 2.008 and was represented by six items. The items were all originally from "sincerity" dimension. Factor loading for this factor ranged from 0.533 to 0.717 with accounted for 4.669% of the total variance in the data. Since all items in factor two discuss about "sincerity" of personality, the original name of "sincerity" was retained. Factor three (eigenvalue = 1.891) was represented by five items. Four items originally from "sophistication" dimension and one from "excitement" dimension. The factor loading that has been carried by factor three ranged from 0.525 to 0.674 and accounted for 4.397% of the total variance in data. Since majority of items in this factor were from "sophistication" dimension, the factor named as "sophistication".

After that, factor four represented by four items with eigenvalue 1.611. The total variance accounted at 3.746% and the factor loading ranged from 0.535 to 0.655. The factor four was named as "competence" because majority of items in this factor were from "competence" dimension with three from "competence" dimension and one from "sophistication" dimension. Then, factor five was represented by three items and all of the items were from "ruggedness" dimension. Factor five resulted with eigenvalue 1.323 and accounted for 3.078% of total variance. The factor loading in factor five ranged from 0.662 to 0.771 and due to all of items in this factor were from "ruggedness" dimension, the original name were retained for this factor as "ruggedness".

While for the factor six, with eigenvalue 1.076 and was represented by three items. The items were all originally from "identity" dimension. Factor loading for this factor ranged from 0.614 to 0.743 with accounted for 2.503% of the total variance in the data. Since all items in factor six discuss about "identity", the original name of "identity" was retained.

Factor seven was represented by one item only with eigenvalue 1.049. The item resulted with factor loading with 0.542 and accounted for 2.441 of total variance in data. Since there were only one item representing this factor, this factor will not be used for further analysis because according to Costello and Osborne (2011), the lowest number of items should be three items in order to be considered stable for a factor. Consequently, factor eight also were not used for further analysis because all of the items in this factor resulted below 0.50. As recommended by Hair et al. (2006) to removed factor that its items were resulted factor loading below 0.50 due it did not brings high relevancy for a factor. So, regarding with this results, only six factors were taken for further analysis. Detail of the factor results is presented in Appendix B.

Table 4.4

Results of Factor Analysis on Brand Image

	1	2	3	4	5	6
Excitement						
Spirited. (PE4)	.612					
Independent. (PE10)	.581					
Contemporary. (PE11)	.580					
Exciting. (PE3)	.557					

Imaginative. (PE7)	.554	
Reliable. (PC1)	.540	
Unique. (PE8)	.530	
Up-to-date. (PE9)	.523	
Hard working. (PC2)	.518	

Sincerity

Sincere. (PSi5)	.717	
Honest. (PSi4)	.653	
Wholesome. (PSi7)	.611	
Real. (PSi6)	.576	
Family-oriented. (PSi2)	.535	
Down-to-earth. (PSi1)	.533	

Sophistication

Good looking. (PSo3)	.674	
Charming. (PSo4)	.674	
Smooth. (PSo6)	.575	
Feminine. (PSo5)	.532	
Trendy. (PE2)	.525	

Competence

Successful. (PC7)		.655
Confident. (PC9)		.630
Leader. (PC8)		.624
Upper class. (PSo1)		.535

Ruggedness

Tough. (PR3)		.771
Masculine. (PR2)		.703
Rugged. (PR4)		.662

Identity

World class education. (I4)	.743
World class research. (I5)	.736
Credibility. (I3)	.614

Eigenvalue	17.981	2.008	1.891	1.611	1.323	1.076
Percentage Variance Explained (%)	41.817	4.669	4.397	3.746	3.078	2.503
Total Variance Explained	64.977 %					
KMO	0.959					
Bartlett's Test of Sphericity	10014. 835					

4.4 Reliability Analysis

In evaluating on how dependable the measurement scales that have been obtained from factor analysis, reliability analysis was conducted in this study. To measure the goodness of data which includes the stability and consistency of the variables, the reliability test was used. In the reliability analysis, the most common method that used to examine the consistency of the data is the Cronbach's Alpha. In order to examine the predictability, the stability and the consistency of each factor, the reliability of measurement tools was verified through Cronbach's Alpha reliability coefficient. According to Sekaran (2003), in the social science study, if the value of Cronbach's Alpha is at 0.6 and above, the factor is generally identified as a reliable value. Moreover, the Cronbach Alpha value that less than 0.60 is considered as a poor reliable and in the range 0.60 and above are acceptable while if the value over 0.80 were considered having a higher and to be good internal consistency (Hair,

Black, Babin, Anderson and Tatham, 2006). Appendix B provides the full SPSS output, while the table 4.5 illustrate the reliability coefficients of the measures.

Table 4.5 illustrated the Cronbach's Alpha of dependent variables with dimensions and independent variables with dimensions. For student behaviour, the dimensions are satisfaction and expectation resulted the Cronbach's Alpha ranged 0.805 to 0.878. Furthermore, for brand image, the dimensions are excitement, sincerity, sophistication, competence, ruggedness and identity were resulted the Cronbach's Alpha ranged 0.833 to 0.953. Overall of this reliability analysis, the value of Cronbach's Alpha were ranged 0.805 to 0.953 thus these number have met the accepted reliability as suggested by Sekaran (2003) and Hair et al. (2006). In addition, the reliability analysis result proved that all variables and factors were internally consistent, reliable and stable.

Table 4.5

Results of Reliability Analysis

Variables and dimensions	Mean (M)	Standard Deviations (SD)	Number of Items	Cronbach's Alpha
DEPENDENT VARIABLES				
Student behaviour	**3.921**	**0.571**	**9**	**0.878**
Satisfaction	3.923	0.678	4	0.840
Expectation	3.920	0.588	5	0.805
INDEPENDENT VARIABLES				
Brand image	**3.724**	**0.646**	**30**	**0.953**

Excitement	3.777	0.760	9	0.902
Sincerity	3.619	0.733	6	0.861
Sophistication	3.591	0.871	5	0.875
Competence	3.953	0.822	4	0.865
Ruggedness	3.463	0.925	3	0.846
Identity	3.954	0.703	3	0.833

4.5 Pearson's Correlation Analysis

In order to achieve the first objective that is to determine the relationship between brand image and student behaviour, Pearson's correlation were used to examine the relationship between dimensions of brand image (identity, sincerity, excitement, competence, sophistication and ruggedness) and student behaviour (satisfaction and expectation). Table 4.6 below shows the result of Pearson's correlation analysis.

Table 4.6

Correlation between independent variables and dependent variables (N=379)

	IV_ excitement	IV_ sincerity	IV_ sophistication	IV_ Competence	IV_ ruggedness	IV_ identity	DV_ satisfaction	DV_ expectation
IV_excitement	1							
IV_sincerity	.631**	1						
IV_sophistication	.719**	.568**	1					
IV_competence	.709**	.609**	.631**	1				

75

IV_ruggedness	.477**	.512**	.556**	.513**	1			
IV_identity	.520**	.536**	.441**	.533**	.324**	1		
DV_satisfaction	.473**	.506**	.438**	.517**	.325**	.611**	1	
DV_expectation	.531**	.544**	.401**	.526**	.286**	.659**	.651**	1

**. Correlation is significant at the 0.01 level (1-tailed).

Based on table 4.6, the result of correlation analysis shows that the brand image dimensions has positive correlations with student behaviour at significance level of 0.01. The SPSS output were presented in Appendix B.

4.6 Multiple Regression Analysis

To identify the best forecaster influencing student behaviour in their satisfaction and expectation, multiple regression analysis were applied in this study. In order to achieve the second objective that is to determine the influence of brand image towards student behaviour, the dimensions of brand image (independent variables) that are excitement, sincerity, sophistication, competence, ruggedness and identity were tested using multiple regressions analysis. According to Gliner, Morgan, and Leech (2011), in the multiple regression analysis, the independent variables would influence the dependent variables if the value is below the significant level of $p<0.05$. So, it indicates that no influence between the independent and dependent variables if the value is above the sign value.

Table 4.7

Multiple Regression Analysis Result

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
.757[a]	.573	.566	.37589	83.223	.000[b]

a. Dependent Variable: Student Behaviour
b. Predictors: (Constant), identity, ruggedness, excitement, sincerity, sophistication, competence

	Standardized Coefficients Beta	T	Sig.
(Constant)		10.035	.000
excitement	.092	1.589	.113
Sincerity	.187	3.822	.000
sophistication	-.002	-.033	.974
competence	.163	3.069	.002
ruggedness	-.042	-.977	.329
Identity	.480	11.245	.000

a. Dependent Variable: Student Behaviour

Based on the multiple regression result in Table 4.8, shows that brand image dimension represented by of excitement, sincerity, sophistication, competence, ruggedness and identity jointly explain 57.3% of the variance in predicting student behaviour. The model proposed is significant at 0.00 level. From the six dimensions, only three dimensions were found have statistically significant with student behaviour ($p < 0.05$). The three dimensions are sincerity ($p = 0.000$), competence ($p = 0.002$) and identity ($p = 0.000$). Moreover, the largest beta coefficient obtained among the dimensions was identity with 0.480 and this corresponds with the highest

77

t-statistic of 11.245. Then followed by sincerity with coefficients beta 0.187 at t-statistic 3.822 and competence with coefficients beta 0.163 at t-statistic 3.069.

Thus, from the result, when the variance explained by all other predictor dimension in the model, this makes the strongest unique contribution in explaining the dependent variables. The hypothesis represented sincerity, competence and identity were the most influence student behaviour in their satisfaction and expectation also were reported significant. However, another three dimensions which are excitement, sophistication and ruggedness were not significant relationship because the significant value above than 0.05. It shows that those dimensions were not influencing the student behaviour and were not the main factors. Notwithstanding, the dimensions of brand image which are sincerity, competence and identity were become the factors to fulfil the student behaviour in their satisfaction and expectation. Table 4.8 below shows the hypothesis result based on multiple regression analysis and the SPSS output were presented in Appendix B.

Table 4.8

Summary of all Hypotheses

Hypothesis	Hypothesis statements	Remarks
H_{1a}	There is a positive relationship between excitement and student behaviour.	Not supported
H_{1b}	There is a positive relationship between sincerity and student behaviour.	Supported
H_{1c}	There is a positive relationship between sophistication and student behaviour.	Not supported
H_{1d}	There is a positive relationship between competence and student behaviour.	Supported

| H₁e | There is a positive relationship between ruggedness and student behaviour. | Not supported |
| H₁f | There is a positive relationship between identity and student behaviour. | Supported |

4.7 Summary

This chapter analyze and interpret on the findings gathered from the data analyses. Firstly, the descriptive test was prepared based on demographic information of respondents. The validation of instruments was conducted through factor analysis. After testing the reliability of data, found that all factors was consistent, reliable and stable. Finally, correlation and multiple regression tests were done to answer the research questions and to achieve the research objectives. All the results of findings were presented and discussed in a detailed manner in this chapter. The next chapter presents the discussion and conclusion.
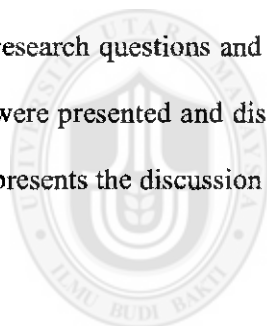
CHAPTER FIVE

DISCUSSIONS AND CONCLUSION

5.1 Introduction

This chapter discusses the findings of the study based on the research objectives presented in chapter one. It includes discussion on the implication, limitation and recommendations for future research. Finally, the chapter ends with a conclusion of the study.

5.2 Recapitulation of the study

Generally, university brand image designed to meet the student's satisfaction and expectation in their behaviour. This study were conducted to identify the dimensions of brand image that influence the student behaviour in Universiti Utara Malaysia (UUM). Aproximately total of 379 students consist of undergraduates and postgraduates student were became the resopondents for this study. Six dimensions of brand image which are identity, sincerity, excitement, competence, sophistication and ruggedness were observed regarding to look forward influence the student behaviour towards UUM.

From the demographics information, the majority of students in UUM are undergraduates students against postgraduates students. Thus, UUM offers the opportunity for continuing study mostly to the person whose finish their study in high school and monopoly students in UUM were undergraduate students. Through the accreditation awarded to UUM, the university were started accepted by

international level. This indicates that UUM already globally aware because 8% of the students were international students.

Pearson's correlation analysis were used to test the first objective. The findings indicated that each independent variables has significant relationship with the student behaviour. Moreover, the second objective was tested by using multiple regression analysis to measure which dimensions mostly significant to influence the student behaviour. The dimensions of brand image (identity, sincerity, excitement, competence, sophistication and ruggedness) were tested in order to identify the most influence dimension that have statistically significant relationship with student behaviour. So, the findings from this study provide the evidence to understand why an university needs to gain their brand image in order to fulfill the student behaviour.

5.3 Discussion

The discussion of the study were based on the research objective, which have been presented in chapter one. Based on the data analysis, it was found that there were significant relationship between dimensions of brand image with student behaviour. In addition, this study provide evidence about the relationship between the independent variable and dependent variable. Accordingly, the following sub-sections discussion the findings with further detail based on the research objective in the chapter one.

5.3.1 To determine the relationship between brand image towards student behaviour

The research objective one is to determine the relationship between brand image towards student behaviour. This aimed to determining if there any significant relationship between the dimensions of brand image which are identity, sincerity, excitement, competence, sophistication, ruggedness and dimensions of dependent variables which are satisfaction and expectation of student towards university. Based on the data analysis, it was found that there were significant differences in brand image dimensions. In fact, the dimensions of brand image have positive significant towards student satisfaction and expectation.

In determining the relationship between dimensions of brand image towards student satisfaction and expectation, identity become the highest factor that significantly influenced. This is because the identification of a university would affect the perception from the students thus, these outcomes would resulted the student satisfaction and expectation. Moreover, it is important for university to adopt the elements of identity for student perceived the value that promotes by university such as warmth, closeness, credibility, world class education and world class research. In addition, the accreditation awarded may gives the positive impact towards university's identity. The perception by the student may be biased against the university because of the accreditation. For example, the student would choose the university with accreditation for their purpose of better employment in the future as the graduated from the accreditation university were important for industry.

Hence, the study also found that the dimensions of brand image which are excitement, sincerity and competence have moderate relationship with student satisfaction and expectation. This is because by using this dimensions means a university would continue to develop their uniqueness for satisfy student satisfaction and expectation. A university can use these vital component to create differentiation enhance competitive advantage in attracting students. This reveals that by being different, the university can build and sustain a strong brand image in education institution market. In addition, the university also would have an excellent image and reputation.

On the other hand, the sophistication factor found that there is a moderate relationship with students satisfaction and weak relationship with students expectation. For students, the sophistication in university may satisfying them but not attract their expectation. Nowadays, sophistication becomes most desirable in human quality and it were not always so. Sophistication element in education would attract student satisfaction and it is not influence their expectation. So, university may sustains their sophistication elements which are upperclass, glamourous, goodlooking, charming, feminine and smooth to achieve student satisfaction also they may improves its to achieve student expectation.

This study also found that between the dimensions of brand image, there are weak significantly relationship between ruggedness with student satisfaction and expectation. This is because the university itselves as the place for education were not suitable with the element of ruggedness. It may be the competitive advantages if the university management success in implementing the element of ruggedness but

83

these element did not gives big impact towards student behaviour. Therefore, the university management could save cost through using the elements of ruggedness in the university brand image. That budget can be distributed for other purpose in order to achieve better brand image.

The results were supported by brand identity model by David Aaker (1996) and brand personality model by Jennifer Aaker (1997). The scholars describes that there are significantly relationship with the dimensions of brand image (brand identity and brand personality) toward consumer behaviour. In addition, the results of this study supported by Becker and Palmer (2009) research which stated that there are strong influence of brand identity towards student behaviour but different result on the important of ruggedness towards student behaviour. This study gives different results that the ruggedness factor are not important towards student behaviour.

As conclusion, this study were expected that identity to be the important factors that gives impact to the student behaviour towards the university. Meanwhile, the element of ruggedness were be the less important factors that gives impact to the student satisfaction and expectation. The university should create their identity to put the knowledge of their brand for students. In addition, its important for the university to sent out or reveal their identity toward student for the student received more information about their university in order to satisfy their needs and wants. So, in order for university to get the positive brand image, it is important that the student can identify the university's identity with the value and image of the brand.

5.3.2 To determine the influence of brand image toward student behaviour

The research objective two is to determine the influence of brand image toward student behaviour. This aimed to seek facts about factors that influences mostly the student behaviour. The dimensions of independent variables which are identity, sincerity, excitement, competence, sophistication and ruggedness were tested to create a conclusion whether it is there a significant influence of the factors toward the dimensions of dependent variables which are satisfaction and expectation. The sincerity, competence and identity factor were been found significantly influential on student behaviour. Although excitement, sophistication and ruggedness factor were been found positively correlated with student behaviour, these three factors representing the brand image construct do not significantly influence the student behaviour. So, this study emphasizes that these dimensions of sincerity, competence and identity as the most influential and significant predictors on student behaviour.

Therefore, all six dimensions of brand image are positively correlated with student behaviour but not all of the dimensions add up to significantly predict the student behaviour. This is because there are another factors would can explains the student behaviour toward university that not involves in this study. The elements of sincerity, competence and identity seems to be suitable with education institution brand image while the elements of excitement, sophistication and ruggedness in not suitable for university brand image as the edueation place. As stated in chapter two (literature), this discussion were supported by Rauschnabel, Krey, Babin and Ivens (2016) that the elements of excitement, sophistication and ruggedness are not convenient for higher education institution. Therefore, the management of the

85

university could draft their cost budgeting strategy by sustain and improve the elements of sincerity, competence and identity in their brand images to achieve better student behaviour. In other hand, they can save budget by remove the elements that not gives impact to university brand image.

5.4 Implication of the study

The discussion also relate to the study implication, which is primarily based on theoretical and practical implications. The outcomes of this study have offered theoretical implications and practical implications for future improvement of education industry.

5.4.1 Theoretical implication

In this study, the research framework was derived from previous research and suggestions in literatures. It was supported by the brand identity model by David Aaker (1996) and brand personality model by Jennifer Aaker (1997). David Aaker (1996) states that the brand identity as strategic personality and brand positioning to achieve brand image while Jennifer Aaker (1997) argues that brand personality can create the bechmark of the brand in order the secure the brand image. Since the most important things for the success of university brand image can be identify through this story, the argument acknowledge in this study was sincerity, competence and identity indeed significantly influence student behaviour. In other word, this study believes that to reach high level of university's brand image would be influenced by student behaviour in aspects of student satisfaction and expectation.

5.4.2 Practical implication

The results indicates that among the dimensions of brand image, identity were found to have the strongest relationship with student satisfaction and expectation. Therefore, the university need to focus on identity dimensions in improve the university brand image. The improvement of identity dimension can be done from the aspect warmth, closeness, credibility, world class education and world class research.

5.5 Limitation of the study

This study has limitations such as:

i)   In the process of collection data from the respondent, the several limitations faced by researcher was in terms of cooperation and time. Lack of cooperation from the respondents is they do not give full cooperation to the researcher and then the outcomes is researcher faced the limitation of time. This limitation happens due to the some reason.

ii)   This study used only selected dimensions in the independent variables (identity, sincerity, excitement, competence, sophistication and ruggedness) to test towards student behaviour. There are some other variables that could be interesting to study in future research in order to satisfy student needs and wants.

87

5.6 Recommendation for future study

This study presented that there are several potential areas for future study. This includes:

i)   Future study should involve personnel in the university. In this respect, further investigation of behaviour may provide the additional elements in the brand management into the findings of brand strategies that can be used by university to strengthen their brand image. The personnel involvement may be related to their behaviour that can influence the dimensions of brand image since it is important nowadays for university to have unique characteristic in terms of manpower, which can contribute to good brand image results.

ii)   Comparison study is highly recommended if replication of this study is to be made. Comparison should be made between different years because it might have different results and perspective of the students in order to emphasis in term strategic brand management for concern of educational institution management. In addition, the comparison study might reveals more insights that may strengthen the findings of the research.

iii)   For future study, other variables should also be considered. The other variables should include culture as such origins hometown and feeling to study in particular university. Perhaps the moderator effect also should be considered. This because the local culture of the university would exhibit different environment and it's deemed suitable to offer different action from education institution management.

iv)   The other factors which are brand awareness and brand equity should be

considered in future study.

5.7 Conclusion

Based on the overall results, this study has provided empirical evidence on the

relationships between brand image and student behaviour. More importantly, this

study has succeeded in answering two main objective; the first main objective was

seek to determine the relationship between brand image towards student behaviour;

the second was to determine the influence of brand image toward student behaviour.

The first part of the objective all dimensions of brand image have significantly

positive influence on student behaviour dimensions which are satisfaction and

expectation. Among the six dimensions of brand image namely identity has the

highest impact on student satisfaction and expectation. Although, in the second part

of the objective, the study confirmed that dimensions of brand image have positive

significant influence on student behaviour.

The result of this study suggests that for university management needs to have a

strategies in improving their brand image through sincerity, competence and identity

in order to enhance student satisfaction and expectation.

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97

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Appendix A

QUESTIONNAIRE

UUM
Universiti Utara Malaysia

The Eminent Management University

AN EMPIRICAL STUDY IN BRAND IMAGE FACTORS THAT INFLUENCE STUDENTS BEHAVIOUR IN UNIVERSITI UTARA MALAYSIA

Dear Mr/ Mrs/ Madam

This research is undertaken to examine the differences between university brand identity in comparing to brand image with the accreditation reccived by UUM. From this research, we hope to discover the factors that constitute in the dimensions of branding strategy which the dimensions will be used as guideline in achievement of positive outcomes as the university's promotional tools. As reseacrhers for the university, we would appreciate if you could participate in this study by responding to this questionnaire.

To assist you in completing this questionnaire, please note the following:

- This questionnaire is preferably completed by the full time student of the Universiti Utara Malaysia. The return of each questionnaire is very valuable to us.
- Please be assured that any information you provide in this questionnaire is **STRICTLY CONFIDENTIAL** and will only be used for the purpose of this research. Your response will be integrated with the response of individuals from many other students. Truthful and accurate responses are very much appreciated. The final report will present only summative information and no details about individual survey responses will be reported.
- Please **answer all questions** in all sections.
- Please return the completed questionnaire to:

Fadli Othman
College of Business
Universiti Utara Malaya, 06010 Sintok
Kedah

- If you have any enquiries pertaining this study, please do not hesitate to contact Fadli Othman at 019-4720501 or mail to: fadli.othman91@yahoo.com

Thank you very much for your time and cooperation.

1. GENDER : FEMALE   MALE
   Jantina   *Perempuan*   *Lelaki*

2. AGE : 18-20 years old   21-23 years old
   Umur   *18-20 tahun*   *21-23 tahun*

          24-26 years old   27 years old and above
          24-26 tahun   *27 tahun dan keatas*

3. HOMETOWN :
   Kampung halaman ....

4. Year started studied at UUM: 2010 or before   2011 – 2013
   Tahun mula belajar di UUM   *2010 atau sebelum*   *2011 – 2013*

                                  2014 – 2016   2017
                                  2014 – 2016   *2017*

5. Level of study :   Degree
   Tahap pengajian   *Ijazah*

                        Master
                        Sarjana

                        PhD
                        Doktor Falsafah

6. Semester :   1   2   3   4   5   6   7   8   9   10 and above/*dan ke atas*
   Semester

7. Program studied in high school :
   Jurusan yang diambil di sekolah menengah ....

8. Through what channels did you hear about UUM before applying?
   Sebelum memohan, anda mengetahui tentang UUM melalui saluran?

   Television   Movies   Newspaper   Family and friends
   Televisyen   *Filem*   *Surat Khabar*   *Keluarga dan rakan-rakan*

   Tradeshow event   Former students   other
   Acara pameran   *Bekas pelajar*   *lain-lain*

9. When you applied, UUM was : first choice   second or third choice
   Semasa anda memohan, UUM adalah   *pilihan pertama*   *pilihan kedua atau ketiga*

                                      fourth or fifth choice   sixth choice or less
                                      pilihan keempat atau kelima *pilihan keenam atau kebawah*

10. Reason for starting your studies at UUM was :
    Kepentingan untuk memulakan pengajian anda di UUM adalah

    close to home   the education (program)   good reputation
    berdekatan rumah   *pengajian (program)*   *reputasi yang baik*

    natural environment   university environment   other
    persekitaran semulajadi *persekitaran universiti*   *lain-lain*

102

STRONGLY DISAGREE (1)/ DISAGREE (2)/ FAIR (3)/ AGREE (4)/ STRONGLY AGREE (5)
Sangat tidak setuju(1)/ Tidak setuju(2)/ Nutral(3)/ Setuju(4)/ Sangat setuju(5)

11. I felt satisfied when I started my study with choosing to start at UUM. *Saya merasa berpuas hati apabila saya memulakan pengajian saya dengan memilih untuk bermula di UUM.*	1	2	3	4	5
12. Today, I felt satisfied that I started my study at UUM. *Hari ini, saya berpuas hati kerana memulakan pengajian saya di UUM.*	1	2	3	4	5

13. The image of UUM were corresponding to my expectations when I started studying here. *Imej UUM sepadan dengan jangkaan saya apabila saya memulakan pengajian di sini.*	1	2	3	4	5
14. The image of UUM was mainly positive. *Imej UUM adalah amat positif.*	1	2	3	4	5
15. My view towards UUM has changed since I started studying here. *Imej saya terhadap UUM telah berubah sejak saya mulakan pengajian disini.*	1	2	3	4	5

I perceived UUM to be a university with:
Saya mengetahui dan menyedari UUM untuk menjadi sebuah universiti dengan:

16. Warmth. *Kemesraan.*	1	2	3	4	5
17. Closeness. *Keakraban.*	1	2	3	4	5
18. Credibility. *Kebolehpercayaan.*	1	2	3	4	5
19. World class education. *Pendidikan bertaraf dunia.*	1	2	3	4	5
20. World class research. *Penyelidikan bertaraf dunia.*	1	2	3	4	5

Referring to UUM:
Merujuk kepada UUM:

21. I perceive the high quality of education. *Saya anggap kualiti pendidikan yang tinggi.*	1	2	3	4	5
22. My education is worth the effort. *Pendidikan saya amat berbaloi.*	1	2	3	4	5
23. My education is better than most others. *Pendidikan saya lebih baik daripada yang lain.*	1	2	3	4	5
24. Sometimes I feel that my studies are a waste of time. *Kadangkala saya berasa pengajian saya adalah satu pembaziran masa.*	1	2	3	4	5
25. I am very pleased with my direction of study. *Saya amat berpuas hati dengan hala tuju pengajian saya.*	1	2	3	4	5

As a student:
Sebagai student:

26. I perceived the high quality at UUM. *Saya mengetahui dan menyedari kualiti yang tinggi di UUM.*	1	2	3	4	5
27. My university is better than most other. *Univesiti saya lebih baik daripada yang lain.*	1	2	3	4	5
28. I am very pleased with my university. *Saya amat berpuas hati dengan universiti saya.*	1	2	3	4	5
29. I am satisfied with UUM as a place to study. *Saya berpuas hati dengan UUM sebagai tempat untuk belajar.*	1	2	3	4	5

30. I feel high degree for me to reach the goals with my studies. *Saya berasa di tahap yang tinggi untuk saya mencapai matlamat dengan pengajian saya.*	1	2	3	4	5
31. I have learned a lot from the classes that I participated in. *Banyak ilmu yang saya perolehi daripada kelas yang diambil.*	1	2	3	4	5
32. I have had problems passing in the classes I have attended. *Saya mempunyai masalah untuk lulus dalam kelas yang saya hadiri.*	1	2	3	4	5
33. I have received good grades in the classes I have attended. *Saya menerima gred yang baik dalam kelas yang saya hadiri.*	1	2	3	4	5

34. **Within the last year, I had thoughts of changing education within UUM.** *Dalam tahun akhir, saya memikirkan untuk mengabah pengajian dalam UUM.*	1	2	3	4	5
35. Within the last year, I had thought of changing to an education at another university. *Dalam tahun akhir, saya memikirkan untuk mengubah pengajian ke universiti lain.*	1	2	3	4	5
36. Within the last year, I often had thoughts of leaving my education. *Dalam tahun akhir, saya sering memikirkan untuk meninggalkan pengajian saya.*	1	2	3	4	5
37. I will probably look around for another education next year. *Saya mungkin akan mencari pengajian lain pada tahun hadapan.*	1	2	3	4	5
38. I will probably look around for another university next year. *Saya mungkin akan mencari universiti lain pada tahun hadapan.*	1	2	3	4	5
39. I care for what happens to my education. *Saya mengambil berat tentang apa yang terjadi terhadap pengajian saya.*	1	2	3	4	5
40. I care for what happens to UUM. *Saya mengambil berat tentang apa yang terjadi terhadap UUM.*	1	2	3	4	5
41. In my education, I am inspired to do my very best. *Dalam pengajian saya, saya berinspirasi untuk melakukan yang terbaik.*	1	2	3	4	5
42. At UUM, I am inspired to do my very best. *Di UUM, saya berinspirasi untuk melakukan yang terbaik.*	1	2	3	4	5

If you look at UUM as a person, how well does the following attribute agree with UUM's "personality"?
Jika anda lihat UUM sebagai seorang manusia, sebaik mana anda bersetuju dengan ciri berikut sebagai "peribadi" UUM?

A part of UUM's personality is to be:
Sebahagian daripada peribadi UUM adalah:

43. **Down-to-earth.** *Rendah diri.*	1	2	3	4	5
44. Family-oriented. *Berteraskan kekeluargaan.*	1	2	3	4	5
45. Small-town. *Bandar kecil.*	1	2	3	4	5
46. Honest. *Jujur.*	1	2	3	4	5
47. Sincere. *Ikhlas.*	1	2	3	4	5
48. Real. *Nyata.*	1	2	3	4	5
49. Wholesome. *Bermanfaat.*	1	2	3	4	5
50. Original. *Asli.*	1	2	3	4	5
51. Cheerful *Ceria.*	1	2	3	4	5
52. Sentimental. *Penuh perasaan.*	1	2	3	4	5
53. Friendly. *Mesra.*	1	2	3	4	5
54. Daring.					

Nekad.	1	2	3	4	5
55. Trendy. Bergaya.	1	2	3	4	5
56. Exciting. Mengujakan.	1	2	3	4	5
57. Spirited. Berjiwa.	1	2	3	4	5

58. Cool. **Hebat.**	1	2	3	4	5
59. Young. Muda.	1	2	3	4	5
60. Imaginative. Berdaya imaginasi.	1	2	3	4	5
61. Unique. Unik	1	2	3	4	5
62. Up-to-date. Terkini.	1	2	3	4	5
63. Independent. Berdikari.	1	2	3	4	5
64. Contemporary. Sezaman.	1	2	3	4	5
65. Reliable. Kebolehpercayaan.	1	2	3	4	5
66. Hard working. Bekerja keras.	1	2	3	4	5
67. Secure. Terjamin.	1	2	3	4	5
68. Intelligent. Bijak.	1	2	3	4	5
69. Technical. Berteknikal.	1	2	3	4	5
70. Corporate. Bekerjasama.	1	2	3	4	5
71. Successful. Berjaya.	1	2	3	4	5
72. Leader. Pemimpin.	1	2	3	4	5
73. Confident. Berkeyakinan	1	2	3	4	5
74. Upper class. Berkelas atasan.	1	2	3	4	5
75. Glamourous. Popular/Terkenal.	1	2	3	4	5
76. Good looking. Beketerampilan.	1	2	3	4	5
77. Charming. Menawan.	1	2	3	4	5
78. Feminine. Feminin.	1	2	3	4	5
79. Smooth. Lancar.	1	2	3	4	5
80. Outdoorsy. Aktif.	1	2	3	4	5
81. Masculine. Maskulin.	1	2	3	4	5
82. Tough. Kuat.	1	2	3	4	5
83. Rugged. Lasak.	1	2	3	4	5

<u>Pilot test</u>

Descriptive Statistics

	N	Sum	Mean
expectation	30	118.60	3.9533
Identity	30	120.40	4.0133
satisfaction	30	114.22	3.8074
performance	30	107.50	3.5833
though_studytime	30	96.44	3.2148
sincerity	30	114.09	3.8030
excitement	30	115.36	3.8455
competence	30	118.78	3.9593
sophistication	30	113.17	3.7722
ruggedness	30	114.25	3.8083
personality	30	115.13	3.8377
Valid N (listwise)	30		

Expectation

Reliability Statistics

Cronbach's Alpha	N of Items
.562	5

Identity

Reliability Statistics

Cronbach's Alpha	N of Items
.750	5

Satisfaction

Reliability Statistics

Cronbach's Alpha	N of Items

.471	9

Performance

Reliability Statistics

Cronbach's Alpha	N of Items
.367	4

Though about study time

Reliability Statistics

Cronbach's Alpha	N of Items
.821	9

Sincerity

Reliability Statistics

Cronbach's Alpha	N of Items
.837	11

Excitement

Reliability Statistics

Cronbach's Alpha	N of Items
.880	11

Competence

Reliability Statistics

Cronbach's Alpha	N of Items
.827	9

Sophistication

Reliability Statistics

Cronbach's Alpha	N of Items
.717	6

Ruggedness

Reliability Statistics
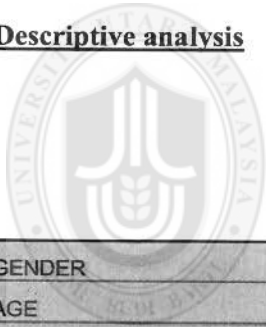
Cronbach's Alpha	N of Items
.712	4

Personality

Reliability Statistics

Cronbach's Alpha	N of Items
.911	5

Descriptive analysis

Descriptive Statistics

	N	Range	Maximum	Mean	Std. Deviation
GENDER	379	1	2	1.24	.426
AGE	379	3	4	2.37	.906
HOMETOWN	379	1	2	1.09	.282
Year started studied at UUM	379	3	4	3.06	.445
Level of study	379	2	3	1.57	.736
Semester	379	3	4	1.61	.794
Program studied in high school	379	2	3	2.08	.732
Through what channels did you hear about UUM before applying?	379	6	7	4.39	1.605
When you applied, UUM was....	379	3	4	2.05	1.063
Reason for starting your studies at UUM was...	379	5	6	3.12	1.648
Valid N (listwise)	379				

108

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	289	76.3	76.3	76.3
	Male	90	23.7	23.7	100.0
	Total	379	100.0	100.0	

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20 years old	61	16.1	16.1	16.1
	21-23 years old	166	43.8	43.8	59.9
	24-26 years old	102	26.9	26.9	86.8
	27 and above	50	13.2	13.2	100.0
	Total	379	100.0	100.0	

HOMETOWN

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local	346	91.3	91.3	91.3
	International	33	8.7	8.7	100.0
	Total	379	100.0	100.0	

Year started studied at UUM

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2010 or before	7	1.8	1.8	1.8
	2011-2013	6	1.6	1.6	3.4
	2014-2016	324	85.5	85.5	88.9
	2017	42	11.1	11.1	100.0
	Total	379	100.0	100.0	

Level of study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	307	81.0	81.0	81.0
	Master	41	10.8	10.8	91.8
	Phd	31	8.2	8.2	100.0
	Total	379	100.0	100.0	

Semester

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	first year	217	57.3	57.3	57.3
	second year	98	25.9	25.9	83.1
	third year	59	15.6	15.6	98.7
	forth year	5	1.3	1.3	100.0
	Total	379	100.0	100.0	

Program studied in high school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	pure science	87	23.0	23.0	23.0
	social science	174	45.9	45.9	68.9
	art	118	31.1	31.1	100.0
	Total	379	100.0	100.0	

Through what channels did you hear about UUM before applying?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	television	31	8.2	8.2	8.2
	movies	8	2.1	2.1	10.3
	newspaper	29	7.7	7.7	17.9
	family & friends	180	47.5	47.5	65.4
	tradeshow event	24	6.3	6.3	71.8
	former student	59	15.6	15.6	87.3
	other	48	12.7	12.7	100.0
	Total	379	100.0	100.0	

110

When you applied, UUM was....

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	first choice	150	39.6	39.6	39.6
	second or third choice	113	29.8	29.8	69.4
	forth or fifth choice	62	16.4	16.4	85.8
	sixth choice or less	54	14.2	14.2	100.0
	Total	379	100.0	100.0	

Reason for starting your studies at UUM was...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	close to home	44	11.6	11.6	11.6
	the education (program)	157	41.4	41.4	53.0
	good reputation	38	10.0	10.0	63.1
	natural environment	40	10.6	10.6	73.6
	university environment	48	12.7	12.7	86.3
	other	52	13.7	13.7	100.0
	Total	379	100.0	100.0	

Factor analysis

Dependent variable (Student Behaviour)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	2749.008
	df	120
	Sig.	.000

111

Total Variance Explained

Fact or	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %
1	7.051	44.072	44.072	6.559	40.996	40.996	2.964	18.523	18.523
2	1.247	7.794	51.866	.865	5.405	46.401	2.879	17.992	36.515
3	1.011	6.317	58.182	.559	3.492	49.893	2.141	13.378	49.893
4	.954	5.965	64.147						
5	.784	4.901	69.048						
6	.680	4.250	73.299						
7	.605	3.784	77.083						
8	.588	3.675	80.757						
9	.510	3.189	83.947						
10	.486	3.039	86.986						
11	.438	2.739	89.725						
12	.420	2.625	92.350						
13	.363	2.267	94.617						
14	.314	1.963	96.581						
15	.311	1.942	98.523						
16	.236	1.477	100.000						

Extraction Method: Principal Axis Factoring.

Universiti Utara Malaysia

Rotated Factor Matrix[a]

	Factor		
	1	2	3
I am very pleased with my university. (S8)	.785	.238	.157
My university is better than most other. (S7)	.744	.207	.166
I am satisfied with UUM as a place to study. (S9)	.597	.327	.248
I perceived the high quality at UUM. (S6)	.529	.431	.219

Today, I felt satisfied that I started my study at UUM. (E2)	.479	.466	.212
The image of UUM were corresponding to my expectations when I started studying here. (E3)	.191	.641	.067
I perceive the high quality of education. (S1)	.246	.574	.328
The image of UUM was mainly positive. (E4)	.396	.561	.196
I felt satisfied when I started my study with choosing to start at UUM (E1)	.405	.538	.244
My education is worth the effort. (S2)	.169	.524	.329
I feel high degree for me to reach the goals with my studies. (P1)	.373	.422	.320
I have received good grades in the classes I have attended. (P4)	.283	.389	.285
I have learned a lot from the classes that I participated in. (P2)	.289	.388	.378
At UUM, I am inspired to do my very best. (T9)	.234	.137	.824
In my education, I am inspired to do my very best. (T8)	.122	.264	.703
I care for what happens to UUM. (T7)	.332	.286	.339

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Scree Plot
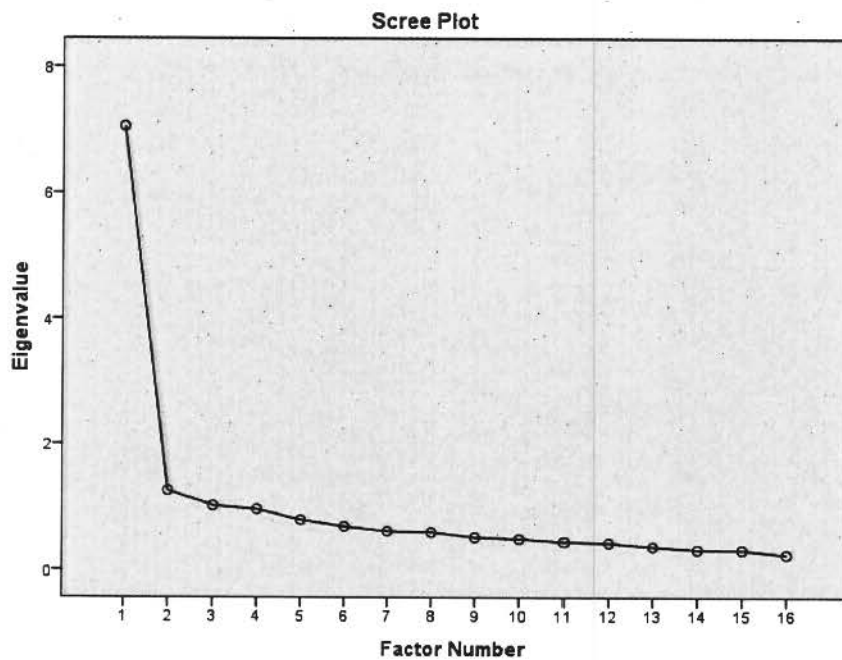
Independent variable (Brand Image)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.959
Bartlett's Test of Sphericity	Approx. Chi-Square	10014.835
	df	903
	Sig.	.000

Total Variance Explained

Fact or	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %
1	17.98 1	41.817	41.817	17.560	40.837	40.837	5.058	11.763	11.763
2	2.008	4.669	46.485	1.581	3.677	44.514	4.890	11.372	23.135

114

3	1.891	4.397	50.883	1.509	3.509	48.023	3.795	8.826	31.961
4	1.611	3.746	54.628	1.199	2.789	50.812	3.772	8.773	40.734
5	1.323	3.078	57.706	.947	2.203	53.015	2.921	6.793	47.527
6	1.076	2.503	60.210	.692	1.610	54.626	2.344	5.451	52.978
7	1.049	2.441	62.650	.613	1.425	56.050	1.114	2.590	55.569
8	1.000	2.327	64.977	.575	1.337	57.387	.782	1.819	57.387
9	.849	1.976	66.952						
10	.739	1.719	68.671						
11	.717	1.668	70.339						
12	.700	1.628	71.967						
13	.671	1.559	73.527						
14	.659	1.532	75.058						
15	.648	1.507	76.565						
16	.606	1.410	77.975						
17	.578	1.343	79.318						
18	.553	1.287	80.605						
19	.516	1.199	81.804						
20	.506	1.176	82.980						
21	.478	1.111	84.091						
22	.452	1.050	85.141						
23	.441	1.025	86.166						
24	.434	1.009	87.175						
25	.416	.968	88.143						
26	.387	.900	89.043						
27	.379	.881	89.924						
28	.374	.871	90.795						
29	.357	.829	91.624						
30	.341	.793	92.418						
31	.323	.750	93.168						
32	.313	.728	93.896						
33	.301	.700	94.596						
34	.283	.659	95.255						
35	.282	.656	95.912						
36	.277	.644	96.555						
37	.261	.606	97.161						
38	.248	.576	97.737						
39	.212	.494	98.231						
40	.204	.473	98.704						

41	.198	.460	99.165						
42	.182	.423	99.588						
43	.177	.412	100.000						

Extraction Method: Principal Axis Factoring.

Rotated Factor Matrix[a]

	Factor							
	1	2	3	4	5	6	7	8
Spirited. (PE4)	.612	.253	.218	.103	.143	.202	.043	.086
Independent. (PE10)	.581	.263	.144	.386	.145	.123	.001	-.111
Contemporary. (PE11)	.580	.282	.199	.242	.196	.178	.120	-.237
Exciting. (PE3)	.557	.243	.355	.126	.139	.089	.097	.201
Imaginative. (PE7)	.554	.262	.234	.118	.079	.076	.263	.146
Reliable. (PC1)	.540	.176	.189	.300	.106	.195	.005	.033
Unique. (PE8)	.530	.094	.207	.283	.097	.070	.090	.257
Up-to-date. (PE9)	.523	.146	.344	.349	.052	.154	.008	-.035
Hard working. (PC2)	.518	.220	.148	.368	.193	.179	.111	-.023
Cool. (PE5)	.441	.214	.386	.148	.105	.051	.203	.159
Young. (PE6)	.410	.255	.386	.084	.125	.117	.294	-.075
Sincere. (PSi5)	.180	.717	.159	.234	.154	.117	.056	.091
Honest. (PSi4)	.126	.653	.212	.264	.121	.236	.083	-.055
Wholesome. (PSi7)	.274	.611	.124	.155	.139	.111	-.093	.055
Real. (PSi6)	.273	.576	.109	.222	.169	.126	.074	.302
Family-oriented. (PSi2)	.144	.535	.181	.182	.116	.200	.052	.026
Down-to-earth. (PSi1)	.125	.533	.096	.134	.216	.167	.091	-.127
Original. (PSi8)	.228	.467	.101	.208	.174	.241	.074	.357
Daring. (PE1)	.314	.460	.238	-.060	.301	.081	.213	.060
Sentimental. (PSi10)	.162	.449	.231	.029	.190	.072	.200	-.011
Cheerful (PSi9)	.329	.422	.230	.196	.128	.192	.109	.311
Friendly. (PSi11)	.358	.420	.153	.168	.185	.139	.164	.166
Secure. (PC3)	.305	.364	.156	.344	.217	.131	.245	-.074
Good looking. (PSo3)	.200	.143	.674	.247	.131	.152	.163	.093
Charming. (PSo4)	.266	.146	.674	.196	.169	.133	.131	.006
Smooth. (PSo6)	.294	.235	.575	.180	.342	.083	-.029	-.011
Feminine. (PSo5)	.313	.258	.532	.146	.312	.081	.025	.055
Trendy. (PE2)	.413	.253	.525	.103	.162	.112	.026	.009
Glamourous. (PSo2)	.161	.233	.487	.379	.210	.163	.020	.040

116

Successful. (PC7)	.226	.201	.243	.655	.098	.162	.106	.000
Confident. (PC9)	.254	.267	.204	.630	.176	.181	.019	.034
Leader. (PC8)	.301	.214	.149	.624	.233	.175	.125	.111
Upper class. (PSo1)	.207	.186	.381	.535	.220	.196	.014	.150
Corporate. (PC6)	.261	.274	.087	.472	.229	.207	.300	.070
Intelligent. (PC4)	.364	.204	.194	.431	.176	.206	.355	.158
Tough. (PR3)	.148	.211	.128	.228	.771	.120	.014	.048
Masculine. (PR2)	.120	.226	.260	.101	.703	.092	.180	-.005
Rugged. (PR4)	.123	.222	.183	.167	.662	.008	.076	.014
Outdoorsy. (PR1)	.170	.232	.258	.234	.409	.092	.033	.230
World class education. (I4)	.214	.196	.151	.213	.096	.743	-.013	.142
World class research. (I5)	.158	.225	.169	.122	.031	.736	.146	.029
Credibility. (I3)	.144	.281	.079	.241	.113	.614	.032	-.059
Technical. (PC5)	.249	.192	.201	.323	.232	.103	.542	.044

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 10 iterations.

Scree Plot

117
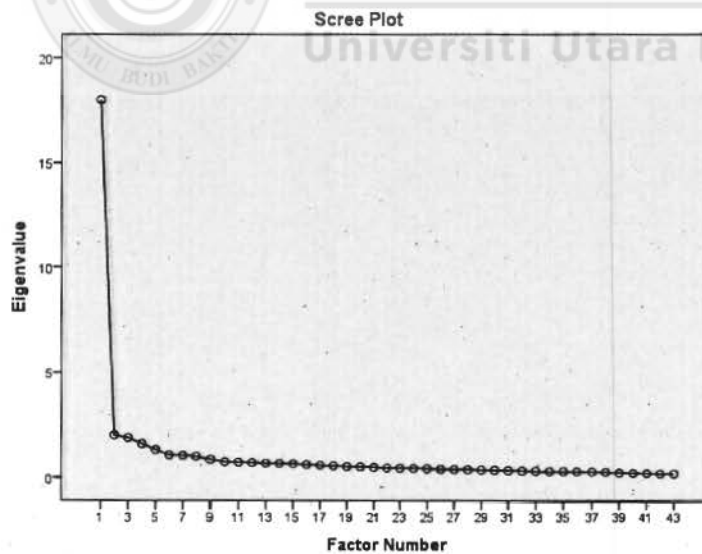
Reliability analysis

Scale: DV_satisfaction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.840	.841	4

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.923	3.847	4.069	.222	1.058	.010	4

Scale: DV_expectation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.805	.806	5

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.920	3.747	4.013	.266	1.071	.013	5

118

Scale: DV

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.784	.789	2

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.922	3.920	3.923	.003	1.001	.000	2

Scale: IV_excitement

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.902	.903	9

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.777	3.673	3.989	.317	1.086	.010	9

Scale: IV_sincerity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.862	6

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.619	3.480	3.828	.348	1.100	.013	6

Scale: IV_sophistication

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.875	.875	5

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.591	3.454	3.752	.298	1.086	.013	5

Scale: IV_competence

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.865	.867	4

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.953	3.805	4.034	.230	1.060	.010	4

Scale: IV_ruggedness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.846	.846	3

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.463	3.383	3.536	.153	1.045	.006	3

Scale: IV_image

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.834	3

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.954	3.905	4.018	.113	1.029	.003	3

Scale: IV

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.953	.953	30

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.724	3.383	4.034	.652	1.193	.035	30

Pearson's correlation analysis

Descriptive Statistics

	Mean	Std. Deviation	N
IV_excitement	3.7766	.75959	379
IV_sincerity	3.6187	.73291	379
IV_sophistication	3.5905	.87124	379
IV_competence	3.9532	.82171	379
IV_ruggedness	3.4626	.92486	379
IV_identity	3.9543	.70291	379
DV_satisfaction	3.9228	.67784	379
DV_expectation	3.9203	.58814	379

Correlations

		IV_excitement	IV_sincerity	IV_sophistication	IV_competence	IV_ruggedness	IV_identity	DV_satisfaction	DV_expectation
IV_excitement	Pearson Correlation	1	.631**	.719**	.709**	.477**	.520**	.473**	.531**
	Sig. (1-tailed)		.000	.000	.000	.000	.000	.000	.000
	Sum of Squares and Cross-products	218.098	132.886	179.907	167.396	126.798	105.017	91.993	89.631
	Covariance	.577	.352	.476	.443	.335	.278	.243	.237
	N	379	379	379	379	379	379	379	379
IV_sincerity	Pearson Correlation	.631**	1	.568**	.609**	.512**	.536**	.506**	.544**
	Sig. (1-tailed)	.000		.000	.000	.000	.000	.000	.000
	Sum of Squares and Cross-products	132.886	203.046	137.094	138.608	131.238	104.391	95.015	88.619
	Covariance	.352	.537	.363	.367	.347	.276	.251	.234
	N	379	379	379	379	379	379	379	379
IV_sophistication	Pearson Correlation	.719**	.568**	1	.631**	.556**	.441**	.438**	.401**
	Sig. (1-tailed)	.000	.000		.000	.000	.000	.000	.000
	Sum of Squares and Cross-products	179.907	137.094	286.926	170.681	169.332	102.169	97.872	77.753
	Covariance	.476	.363	.759	.452	.448	.270	.259	.206
	N	379	379	379	379	379	379	379	379
IV_competence	Pearson Correlation	.709**	.609**	.631**	1	.513**	.533**	.517**	.526**
	Sig. (1-tailed)	.000	.000	.000		.000	.000	.000	.000

	Sum of Squares and Cross-products	167.396	138.608	170.681	255.231	147.462	116.272	108.943	96.086
	Covariance	.443	.367	.452	.675	.390	.308	.288	.254
	N	379	379	379	379	379	379	379	379
IV_ruggedness	Pearson Correlation	.477**	.512**	.556**	.513**	1	.324**	.325**	.286**
	Sig. (1-tailed)	.000	.000	.000	.000		.000	.000	.000
	Sum of Squares and Cross-products	126.798	131.238	169.332	147.462	323.332	79.574	77.032	58.771
	Covariance	.335	.347	.448	.390	.855	.211	.204	.155
	N	379	379	379	379	379	379	379	379
IV_identity	Pearson Correlation	.520**	.536**	.441**	.533**	.324**	1	.611**	.659**
	Sig. (1-tailed)	.000	.000	.000	.000	.000		.000	.000
	Sum of Squares and Cross-products	105.017	104.391	102.169	116.272	79.574	186.763	110.079	102.952
	Covariance	.278	.276	.270	.308	.211	.494	.291	.272
	N	379	379	379	379	379	379	379	379
DV_satisfaction	Pearson Correlation	.473**	.506**	.438**	.517**	.325**	.611**	1	.651**
	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000		.000
	Sum of Squares and Cross-products	91.993	95.015	97.872	108.943	77.032	110.079	173.680	98.119
	Covariance	.243	.251	.259	.288	.204	.291	.459	.260
	N	379	379	379	379	379	379	379	379
DV_expectation	Pearson Correlation	.531**	.544**	.401**	.526**	.286**	.659**	.651**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000	.000	
	Sum of Squares and Cross-products	89.631	88.619	77.753	96.086	58.771	102.952	98.119	130.754
	Covariance	.237	.234	.206	.254	.155	.272	.260	.346
	N	379	379	379	379	379	379	379	379

**. Correlation is significant at the 0.01 level (1-tailed).

Multiple regression analysis

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	IV_identity, IV_ruggedness, IV_excitement, IV_sincerity, IV_sophistication, IV_competence[b]	.	Enter

a. Dependent Variable: DV

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.757[a]	.573	.566	.37589	1.953

a. Predictors: (Constant), IV_identity, IV_ruggedness, IV_excitement, IV_sincerity, IV_sophistication, IV_competence

b. Dependent Variable: DV

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.555	6	11.759	83.223	.000[b]
	Residual	52.562	372	.141		
	Total	123.117	378			

a. Dependent Variable: DV

b. Predictors: (Constant), IV_identity, IV_ruggedness, IV_excitement, IV_sincerity, IV_sophistication, IV_competence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.242	.124		10.035	.000		
	IV_excitement	.069	.043	.092	1.589	.113	.345	2.901
	IV_sincerity	.146	.038	.187	3.822	.000	.479	2.086
	IV_sophistication	-.001	.035	-.002	-.033	.974	.410	2.440
	IV_competence	.113	.037	.163	3.069	.002	.408	2.448
	IV_ruggedness	-.026	.027	-.042	-.977	.329	.616	1.623
	IV_identity	.389	.035	.480	11.245	.000	.631	1.586

a. Dependent Variable: DV

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	IV_excitement	IV_sincerity	IV_sophistication	IV_competence	IV_ruggedness	IV_identity
1	1	6.871	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.042	12.843	.09	.00	.00	.03	.00	.60	.08
	3	.029	15.271	.18	.06	.00	.28	.02	.31	.03
	4	.018	19.448	.41	.00	.39	.28	.08	.00	.01
	5	.015	21.128	.00	.01	.45	.13	.57	.02	.00
	6	.014	22.133	.30	.04	.11	.05	.03	.02	.88
	7	.010	26.102	.03	.89	.05	.23	.28	.05	.01

a. Dependent Variable: DV

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.2705	4.7293	3.9214	.43203	379
Residual	-1.32885	1.36075	.00000	.37290	379
Std. Predicted Value	-3.821	1.870	.000	1.000	379
Std. Residual	-3.535	3.620	.000	.992	379

a. Dependent Variable: DV

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: DV

Appendix C

LETTER OF DATA COLLECTION

FADLI BIN OTHMAN
Sarjana Pengurusan,
Universiti Utara Malaysia,
06010 Sintok, Kedah.

Jabatan Hal Ehwal Akademik,
Universiti Utara Malaysia,
06010 UUM Sintok,
Kedah Darul Aman.

16 Februari 2017

Tuan/ Puan,

PERMOHONAN MENDAPATKAN POPULASI BILANGAN PELAJAR DI UNIVERSITI UTARA MALAYSIA

Dengan sukacitanya perkara di atas adalah di rujuk.

2.   Saya seperti nama di atas bernombor matrik 820346 merupakan pelajar semester akhir Sarjana Pengurusan, Universiti Utara Malaysia. Saya kini dalam proses menyiapkan tugasan penyelidikan berkaitan dengan penyelidikan kesan penjenamaan imej universiti terhadap gelagat pelajar UUM. Saya ingin mendapatkan populasi bilangan pelajar di UUM untuk menjalankan kajian ini.

3.   Sebarang maklumat lanjut, saya boleh dihubungi melalui:

No telefon : 019-4720501
Emel : fadli.othman91@yahoo.com

Kerjasama dan perhatian daripada pihak tuan/puan amatlah dihargai dan didahului dengan ucapan terima kasih.

Sekian,

Yang Benar,   Disemak oleh,

(Fadli bin Othman)   (Dr. Shahru...... SAAD)
                                                         Senior Lecturer
                                                         Marketing Program
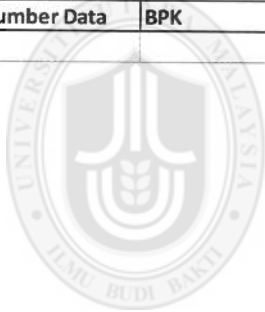   School of Business Management
                                                         College of Business
                                                         Universiti Utara Malaysia

Appendix D

POPULATION OF STUDENTS IN UUM

Enrolmen Pelajar Aktif UUM Mengikut Peringkat, TarafWarga dan Jantina

Tarikh Data	19/3/2017	🔽
kategori_status	Enrolmen	🔽
status umum	Aktif	🔽

Peringkat_ Pengajian 🔽	TarafWarga/ Jantina 🔽 Warganegara		Bukan Warganegara		Grand Total
	Lelaki	Perempuan	Lelaki	Perempuan	
Postgraduate	1476	2396	855	256	4983
Undergraduate	6282	13827	654	458	21221
Grand Total	7758	16223	1509	714	26204

Tarikh Data	19 Mac 2017
Tarikh Lapor	20 Mac 2017
Sumber Data	BPK