

**THE FACTORS AFFECTING STUDENT'S SATISFACTION IN UNIVERSITY UTARA
MALAYSIA, KEDAH.**

By

NURUL HIDAYAH BINTI MD NOOR

Thesis submitted to

Othman Yeop Abdullah Graduate School of Business,

University Utara Malaysia,

in Partial Fulfillment of the Requirement for Master of Sciences (Management)

PERMISSION TO USE

In presenting this dissertation in partial fulfillment of requirements for a Post Graduate degree from the University Utara Malaysia (UUM), I agree that the Library of this university may take freely available for inspection. I further agree that permission for copying this dissertation in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation. It is understood that any copying or publication or use of this dissertation parts of it financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and the UUM in any scholarly use which may be made of any material in my dissertation.

Request for permission to copy or make other use for materials in this dissertation in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business

University Utara Malaysia 06010 UUM Sintok

Kedah DarulAman

ACKNOWLEDGEMENTS

This dissertation was prepared for the partial fulfillment of Master of Science Management program. It is pleasure to thank all those people who made this study possible. This study would not have been possible without the guidance of my advisor and also help from my friends.

I owe my sincere appreciation to my Advisor, Mr. Shahmir Sivaraj Abdullah, for his invaluable suggestions, guidance in help to throughout this study. It is an honor for me to complete this study under his guidance. He has made available his support in number of ways helping me in how to collecting surveys, providing guidance for the data analysis, editing and so on.

I am indebted to many of my friends and participations for their time and help in collecting the surveys.

Last, but not least, I would like to show my gratitude to my parents, without their support it would be possible to complete my Master of Science Management in University Utara Malaysia (UUM).

ABSTRACT

Theoretically, education can be considered as one of important and fruitful investment that all the time rewards in numerous ways. The strong and effective educational systems results in the greater performance of the students. Based on Muhamd, Rizwan and Ali (2010) state “the educational institutions where the system is affective and administration is willing to provide the quality services always enjoy more incoming of brilliant and talented students.” Student paying fee tuition in higher education, they deserve to get something in high quality that suits with the value of money paying for tuition fee. The level of satisfaction among the student being as a scale in measuring whether HEI afford to deliver or provided services, technology, and facilities in effective ways. This study empirically examines the relationship between campus services, technology, and campus facilities and students’ satisfaction and which factors impact on student’s satisfaction in University Utara Malaysia, Kedah. The sample size in this study was 377 undergraduate student of UUM.

The result of this study shown the positive relationship between campus services, technology, and campus facilities and students’ satisfaction, but only campus services is significant with students’ satisfaction.

ABSTRAK

Pendidikan boleh dianggap sebagai salah satu pelaburan penting dan bermakna kerana mampu memberi ganjaran dalam pelbagai cara. Sistem pendidikan yang kukuh dan berkesan menyebabkan prestasi pelajar semakin meningkat. Berdasarkan Muhamad, Rizwan, dan Ali (2010) menyatakan institusi di mana sistem pendidikan lebih efektif akan melahirkan ramai pelajar yang cemerlang dan berbakat. Selain itu, pelajar juga membayar yuran pengajian, oleh itu mereka berhak mendapatkan sesuatu yang berkualiti daripada nilai wang yang dilaburkan. Tahap kepuasan dalam kalangan pelajar digunakan sebagai penanda di mana institusi tahap kecukupan institusi akan diukur. Kajian ini dijalankan bagi mengkaji hubungan di antara perkhidmatan kampus, teknologi, dan kemudahan kampus dan kepuasan pelajar, dan turut mengkaji faktor yang memberi kesan kepada kepuasan pelajar di Universiti Utara Malaysia (UUM), Kedah. Jumlah responden dalam kajian ini ialah 377 orang pelajar sarjana muda di UUM.

Hasil kajian menunjukkan hubungan yang positif antara perkhidmatan kampus, teknologi, dan kemudahan kampus, tetapi hanya perkhidmatan kampus yang memberi impak terhadap kepuasan pelajar.

Keywords: Campus Services, Technology, Campus Facilities, Students' Satisfaction

TABLE OF CONTENTS

LIST OF TABLES.....	i
LIST OF FIGURE.....	ii
CHAPTER ONE	
Introduction	
1.1 Background of study.....	1-4
1.2 Problem statement.....	5-7
1.3 Research question.....	7
1.4 Research objective.....	8
1.5 Scope of study.....	8
1.6 Limitation of study.....	8-9
1.7 Significant of study.....	9-10
1.8 Definition of key terms.....	10-11
1.9 Organization of the Thesis.....	11-13
CHAPTER TWO	
Literature Review	
2.1 Introduction.....	14
2.2 Student’s Satisfaction.....	14-23
2.3 Campus Services.....	23-32
2.3.1 Academic Service.....	32-35
2.3.2 Non- Academic Service.....	35-37
2.4 Technology.....	37-41
2.4.1 Wireless Technology.....	41-43
2.4.2 Information and Communication Technology (ICT).....	43-45
2.5 Campus Facilities.....	45-47
2.5.1 Learning Space.....	47-48

2.5.2	Transportation Facilities.....	49-50
2.5.3	Library Facilities.....	50-52
2.6	Hypotheses.....	53
2.7	Theoretical Framework.....	53

CHAPTER THREE

Methodology

3.1	Introduction.....	54
3.2	Research design.....	54-55
3.3	Population/sample design.....	55
3.3.1	Target population.....	55-56
3.4	Data collection method.....	56
3.4.1	Primary data.....	56
3.4.2	Secondary data.....	57
3.5	Measurement/instrument.....	57-59
3.6	Data analysis technique.....	59-60

CHAPTER FOUR

DaTa Analysis and Findings

4.1	Introduction.....	61
4.2	Response rate.....	62
4.3	Descriptive Statistic.....	62-64
4.4	Reliability Analysis.....	64-66
4.5	Correlation Analysis.....	66-67
4.6	Multiple Regression Analysis.....	68-69
4.6.1	Multiple Regression Results	69-72

CHAPTER FIVE

Discussion and Conclusion

5.1	Introduction.....	73
5.2	Discussion.....	73-77

5.3	Limitations.....	77
5.3	Conclusion and suggestions.....	77-79
	REFERENCES.....	80-107
	APPENDIX	

LIST OF TABLES

3.1 Sources of Questionnaire.....	58-59
4.1 Profile of respondent.....	63-64
4.2 Scale of Cronbach's Alpha.....	65
4.3 Reliability statistics.....	65
4.4 Scale statistic.....	65
4.5 Results of Correlation.....	67
4.6 a) Model Summary.....	69
4.6 b) Analysis of Variance (ANOVA).....	70
4.6 c) Result of Coefficient.....	71
5.1 Summary of hypotheses of correlation.....	74

LIST OF FIGURE

2.1 Theoretical framework.....	53
--------------------------------	----

CHAPTER ONE

INTRODUCTION

1.1 Background of study

Theoretically, education can be considered as one of important and fruitful investment that all the time rewards in numerous ways. The strong and effective educational systems results in the greater performance of the students. Based on Muhamd, Rizwan and Ali (2010) state “the educational institutions where the system is affective and administration is willing to provide the quality services always enjoy more incoming of brilliant and talented students.” Additionally, in order to make the institution progressive and effective the knowledge of students’ expectations, academic preference and quality perception about the educational environment should be kept by the higher authorities of the institute (Palacio, Meneses, and Perez, 2002). Particularly the students who are at a higher academic level, for example, likes studying in higher educational institution seek more quality of education and perfection of the system provided at study place because it satisfies their esteem and develops them with all the essential and capabilities to be a high ability student that able to build self confidences, able to work in team, and so on. LeBlanc and Nguyen (1997) state “the effectiveness of administration and management of higher educational institution, they facilitate the students with quality assurance and personality grooming so that the students can take maximum out of it.”

Subsequently, higher education institution (HEI) as services provider they should be responsive to student requirements. According to Watson (2003) and Narasimhan (2001) state that fee-paying students may expect “value for money” and they want to be treat like a customer of the HEI. As students are increasingly seen as customers of higher

education services, their satisfaction should be important to institutions for the success of a university (Yousef and Hamideh, 2013). As argued by Berry (1995), service is one of the important factors enhancing value, and can positively influence a college's success. The feedback on student satisfaction can act as an essential tool to enhance the quality of all aspect that delivery by the higher education.

Higher education institutions are increasingly recognizing that higher education is a service industry, and are placing greater emphasis on meeting the expectations and needs of their participating customers, that is, the students. This becomes even more important in those states where university budgets utilize tuition based model. According to Kotler and Fox (1995) state "the rapid expansion of college and universities, and significant increase in college education costs combined with demographic shifts in the population, force college to think differently about the role of student satisfaction for their survival."

The topic regarding satisfaction in academic settings well-researched (Wan, Mohamad, and Khairul, 2014) by prior researchers which is focusing on the level satisfaction among the students toward all aspect provided by higher education institutions. In addition, has variety of factors that can influence the level of students' satisfaction, and the data getting can help colleges and universities to be more responsive to the needs of a changing marketplace. Then, students' satisfaction also can be as an important element in determining the quality of all aspects that provided by higher education institutions (HEI). The emphasis on students' satisfaction is very important to gain a good image and develop positive perceptions towards all aspects that provided by HEI. Therefore, to ensure improvement in the quality of the given services, HEI should take seriously regarding the needs of students and it can be as a key to succeed in the educational sector.

After that, education services also plays crucial role in strengthen economic of the country and be a tools in upgrading the standards of living people. In the higher education is even more necessary as all the professionals are produced by the higher education. Every country tries to develop such institutions which produce high quality professionals in every field. Malaysia is a developing country and also trying to develop its people with respect to their standard of living by delivering more and more education by setting up education institutions especially higher education institutions are focused. Higher education institutions in Malaysia are graced with the increasing number of public higher education institutions (IPTA) and private higher education institutions (IPTS). According to Wan, Mohamad and Khairul (2014) state that “both higher IPTA and IPTS aims at producing excellent quality and competitive products at a higher level to meet the domestic and global demand in the job market.” By offering a favorable learning environment that covers various aspects of services and facilities, this can help the university to achieve the goals.

In addition, services and facilities without technology today’s can create lack in method of doing improvement in service delivery, because the advantage of adopt technologies in organization will ease all department in becoming more effective and efficient in doing their daily operation. Pressures for modernizing higher education can be traced everywhere (McRoy, and Gibbs, 2009). Bernhard (2012) state “modern higher education has to deal with many challenges owing to fundamental challenges in the global environment.” Students’ expectation about their courses and service in higher education was higher and hope that HEI can be a good medium for them in getting more new knowledge, and development of soft skills such as confident when communicate or give

speech, has a leadership characteristic, enjoy work in group, able to solve problem, creative thinking, expert in using hardware and software of technology, and so on. According to DeShield, Kara, and Kanyak (2005) stated that as to satisfy the needs of ultimate customers which are students of these higher education institutions, is the basic goals of institution, they are trying to meet the increasing number of expectations and trying to meet high quality of students demanded at this higher level of education. Higher education institutions are considering their students as customers and treating this service as genuine business service.

Students' satisfaction surveys are important in ascertaining whether colleges and universities are fulfilling their mission (Tessema, Ready, and Yu, 2012). It is well known that the most important product of educational institutional is qualified graduates. In order to best prepare students so that they are sought after employers upon graduation, colleges and university should properly delivery all aspects that help in upgrading students' skills and knowledge. Additionally, higher education institution arrange variety of effort which improve in many aspect of service like ability of teaching skills and method by instructors, organized more workshop and seminar, upgrade syllabus and course content, adding variety source of reading in library, upgrade physical facilities and so on, in term of to preparing and produce more talented students that own ability and skills to compete with others candidates to grab the jobs opportunities in this challenging and competitive job market demand. Universities need to create a 'virtual circle' mentioned by Tang and Husien (2011) for the good of both student and universities themselves to develop mutual relationship and understanding in terms of sustainability of the institution and prospective investment.

1.2 Problem statement

Higher education institutions (HEI) also play more responsibility in sustaining education service business, which is they should be upgrading strategic management plan, aware with student complaint, be more creative in create an effective services that can help in sustaining university image as excellence one. So in planning their own strategy, higher educational institution should make their own SWOT analysis that find internal factor likes strength and weakness and also their external factor like opportunities and threat, from that analysis HEI can understand what they should do and then run strategy. One way to do this is to identify the key determinants of student satisfactions as to help universities priorities the services they offer for the purpose of resource allocation (Douglas, Douglas, and Barnes, 2006). This approach suggests that there is value in monitoring the importance of service and examining student satisfaction with these services (Garver, 2009). University also should be alert with the up and down level of quality they delivery to student, which part should be adding, to ensure that all of student deliver same or exceed level of quality compare to their expectation and create sustain in satisfaction.

Student paying for the fee of tuition when enter the colleges or university, so it is important for HEI to treat students as customer of education by providing them something that can enhance their satisfaction. Then, HEI also should upgrading the management, system, technology that suits with development of education today, which modern learning environment that combined with availability of technology in learning space and modern equipment that can make process of teaching and learning be more attracting and exciting. Besides, comfort student feeling, will make them feel more

motivate and enhancing their performance. Then, HEI also been expected to providing students with high quality lecturer that has abilities and wide knowledge and skills in teaching, excellent learning environment, and appropriate support services that can treat students well if they facing the problem and from that part student will be satisfied and valuable with the amount of fees they paying.

Moreover, the impact of the changed of education learning, higher education also need to move forward by getting changed and shifting it system and management from traditional system like educational one into a totally consumer-led market, where they prefers most on tools such as e-learning system that have to be used. If quality in the educational institutions can't be achieved, unless there is a continuous assessment as well as measures are taken to improve the performance of instructors. Lecturer in higher education institutions have the responsibility of delivering quality education through finding the better ways of delivering knowledge, researches, reviewing and updating their knowledge as well as improving the curriculum to satisfy the students as the students is the customers of the institutions.

Not only focusing on the service delivery, HEI also should be concern on other factors that can affecting student's satisfaction which is technology and physical facilities provided in university. People today depending more on technology, for example, as a student they need laptop to complete the assignment, they also need wireless technology as tools to access when they want to finds information or communicate with all the people. If the availability of technology is not adequate, satisfaction level also will be decrease. So, it be important to HEI to provided technology to student properly that met or exceed their needs. In addition, when people expert use of technology, it can give

advantage for them to use in future. Facilities also play a vital role in enhancing student's satisfaction that university provide comfortable and up-to-date learning space that has a modern equipment to use when doing presentation, lecturer use when teaching and so on. Then, transportation services also one of the important tools for student, because transit bus in the campus will ease the student to move from one place to another in campus, which they can move from hostel to class, from class to another class.

Furthermore, additional sources also consider as important needs for a student, because when they need to complete task or for examinations, student needs extra references that should be use not only depend on one text books and lecturer notes. So, facilities of academic library also will impact on student satisfaction if it do not provide well, for example, not adequate books, e-journal and so on. If all the factors are not provide properly it can causes of dissatisfaction among student, and can influence their level of performances, and graduate with less of quality that can be disadvantage when compete with others in job competition. It can give bad impact to university reputation, also can decrease university ranking local and global.

The purpose of this study is to examine the relationship between campus service, technology and campus facilities and student satisfaction and what factors that impact most on student satisfaction in UUM.

1.3 Research question

1. Determine if has a relationship between campus services, technology and campus facilities and student satisfaction in University Utara Malaysia?
2. Which critical factors of variables that impact most to the satisfaction of the students?

1.4 Research objective

The purpose of this study is to examine the relationship between independent variables (campus services, technology and campus facilities) and dependent variable (students' satisfaction) in public higher education institution. There is two research objectives in this study state as below:

The purpose of this research:

- 1) To examine the relationship between campus service, technology, campus facilities and student satisfaction.
- 2) To examine critical factors between campus service, technology and campus facilities that impact most on student satisfaction.

1.5 Scope

The scope of this study will be focusing on the students' satisfaction towards the campus services, technology and campus facilities in university. Then, the result of the hypotheses of this study, will be getting after distribute questionnaire to all the respondents. The questionnaire was distributed in the University Utara Malaysia (UUM), and the target group was undergraduate students that study in UUM, Kedah.

1.6 Limitation of the research

The limitations of the research are:

- In this study, it does not include the whole population of the students who is studying in Malaysia. Thus, the primary limitation is the scope and sample size.

- The research was conducted in Kedah, researcher only use one sample in this study which is University Utara Malaysia as public university. So, the result of student satisfaction cannot be generalized for the private higher education.
- This study only focus on undergraduate student, so the result cannot be represent as overall student satisfaction in UUM.
- There may be more factors that can affect students' satisfaction that but no be the interest of research to be put in this study.
- The study was conducted fully in English, because all the respondents are the university students. While this eliminated the need for translation for the survey questionnaires, language also as one of the limitations.

1.7 Significance of the study

Students' satisfaction among undergraduate students has been use as a scale in measuring the phase of effectiveness of higher education institution as a service provider. This study is conducted to examine the factors (campus service, technology, and campus facilities) that affecting student satisfaction among students studying in Malaysia. After that, the findings in this study may benefits for both the university and student. The findings of this study are related to students' satisfaction towards the campus services, technology and campus facilities of the university, that help them in enhancing their satisfaction which fulfill their needs that exposed them with quality syllabus and method of teaching, more personal development activities organized by non-academic staff, modern technology and equipment than will enhance in learning that give higher quality outcomes which has additional soft skills that can help them enable to compete with others in job markets. This research also help university to know what kinds of

relationship between independent variables (campus services, technology and campus facilities) and dependent variable (students' satisfaction), and which factor that impact on dependent variable. The results of this study will be used to enhance the level of students' satisfaction, then it can be used as a guide when the university is involve with new changes in policies and procedure.

The finding this study will lead and help the university in Malaysia how they actually need to serve students better and effectively in the future, and organized more career development likes business talk, expose student to do public speaking, and so on that can enhance the satisfaction level of its student. These findings may also be useful for student that has intention to pursue study in Malaysia also for the local student to pursue study in master and PHD levels. From the result it can give foreign and local consumer the scale and information about the level of quality providing in university and it also can influence and attract them to pursue in this university.

1.8 Definition of key terms

Student Satisfaction: Student satisfaction in has be define as the context of educational that can be referred as how the students evaluate their outcomes based on the education and experiences in the higher education institutions (Oliver and Desarbo, 1997)

Campus services: Oldfield and Baron (2000), "higher education can be seen as a pure service, and it vary from other professional services in several ways which educational services play a vital role in the students' life and students needvast amounts of motivation and intellectual skills to enable them achieving education goals."

Technology: Stukalina (2012) define technology as an “essential factor to establish an efficient system for internal communication in terms of transferring knowledge in educational institution.”

Campus facilities: Hill and Epps (2010) state that “the vital of better physical environment quality in campus, where students express a preferred for several aspects of upgrades in classrooms equipment such as comfortable seating, quality in lighting, and classroom noise control.”

1.9 Organization of research

In this research, the arrangement of content is divided into more chapter to ensure that the flow of research continuous step by step that can ease the readers in understanding and gain something from this study.

For the first chapter, researcher will conduct the introduction of study that include background of the study, follow by gap in study that title as problem statement, then researcher find the questions of this study, after that come with the objectives of research that want to highlight in solving the problem exist. Scope of the study will be create after the question and objective of the research, to state that which area that research interest most to do the investigate, and how respondents will be choose to be as a sample in this study. Then, for the limitation of study, researcher will highlight which area not be included in this study that make the result cannot be claimed as same for all student satisfaction study, and also adding something as guide that researcher can do in future. The significant of study, researcher highlight the benefit of this research to other reader in future, maybe can be as reference in doing research and also can be references for international student if they have intention to pursue study in Malaysia. Key term of

definitions also included in this study, to expose the readers to the intro of the content and also can ease reader to follow the flow of the research.

Next, researcher will be explained the flow of chapter two that discuss about the literature review of the study. The introduction in chapter two highlight the main topic that will be discuss which is dependent variable which is student satisfaction, and three independent variables which is campus services, technology, and campus facilities, hypotheses of the research and theoretical framework. In this chapter also, researcher will use information from prior study to support all content and hypotheses that want to be testing, because justification make researcher study to be strong and relevance to be investigate.

In the chapter three, the methodology of research will be explain the detailed of step-by-step procedure use in how the researcher will conduct this study. The first thing that be touch by researcher is how the research is design for the population and sample, data collection method, measurement and/or instrument, and last for the data analysis techniques.

After finish the three chapters, researcher make a questionnaire as a method to measure the hypotheses of this study. Then, the questionnaire will be distributed and collect back by researcher. All the information that getting from the questionnaire, will be key in to SPSS, then researcher run the data to gain the result for this study. All the result given can be used to find the answer for the hypotheses testing. All the data getting from analysis will be discuss in chapter four, there have several of technique use in analysis the data.

The last chapter is chapter five, researcher make some conclusion about the study, based on the result getting in chapter four. The discussion of the result will be discuss in depth. In addition, researcher give suggestion for the further study that researcher can be add in more variable to ensure that research be more appropriate and success.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, the point of researcher gain is from selection and reading of secondary data, which is from journal, and academic books, because “both sources are more useful to be source of information” (Sekaran and Bougie, 2013). In this chapter also, will be present about dependent variable (student satisfaction), independent variable (campus services, technology, and campus facilities), hypotheses and theoretical framework.

2.2 Students’ satisfaction

Cadotte and Turgeon (1988) revealed that the “scale of how to measure the level of feeling on services or product delivery can be sort as satisfaction, dissatisfaction, critical, or neutral.” A “dissatisfaction” feeling occurs when services or product provide to customer with the limitation and not fulfill customer needs. This situation will lead to frustrated and cause of dissatisfaction, but the existence of which doesn’t cause satisfaction. For example, lack of campus facilities in university might cause of dissatisfaction but it cannot be predict that if universities provide sufficient facilities it can cause satisfaction. Based on Alireza, Amirul and Ku, (2011) said “critical are those aspects which are both satisfaction and dissatisfaction”, for example, existence of service or product can leads to feel satisfaction and lack does not cause dissatisfaction, and “neutral” are those aspects whose presence does not lead to satisfaction and absence does not cause dissatisfaction.

The successful of organization in provide product and/or services to marketplace can be indicate within the level of satisfaction by the customer when they use the product and/or

services. Satisfaction is a summary of “affective and variable intensity response centered on specific aspects of acquisition and/or consumption and which takes place at the precise moment when the individual evaluates the objectives” (Giese and Cote, 2000). According to Elliot and Shin (2002), they define student’s satisfaction as, “the favorability of a student subjective evaluation of the various outcomes and experiences associated with education, student satisfaction is being shaped continually by repeated experiences in campus life”. Therefore, investigate students’ satisfaction in higher education institution is vital, because if satisfaction attained, it will be claim that higher education implement their education strategic effectively. Based on Yousef and Hamided(2013), state that students’ satisfaction plays important role for the success of higher education institution.

The satisfaction of the students in the context of educational can be referred as how the students evaluate their outcomes regarding the education and experiences in the educational institutions (Oliver and Desarbo, 1997). Moreover, Borden (1995) insisted that satisfaction of the students relates to comparison between student priorities and the environment which they perceive in the institution. Based on a study conducted by Mamun and Das (1999) they were explored some interesting factors in the satisfaction of the students in higher education institutions, and the factors which they included are facilities of library and facilities of labs. The curriculum which adds skills in the students and the quality of teaching are the two main factors that should be considered in students’ satisfaction (Ahmad and Anwar, 2000)

Kotler (2009) classify satisfaction as “people feeling of pleasure that result from comparing products perceived performance (outcome) to their expectation”. For example,

if higher education can provide something that is important to a student, the student will be satisfied (Nauman, 2011). Higher education institutions (HEI) are the best places where students start in gaining the worth experienced that consist of a variety of process ways of learning, before they enter the real complex and competition working life. Higher education institutions can be defined as “in purest sense, a university that assembles the communities with variation of ideologies, agenda, and academic traditions held together by a common institutional logo and name” (Michael, 1997). Although all students sit under the same logo and name of HEI, but they vary each other, and the ways to satisfy them also can be complex. In order to understand them at least at HEI should put student as important resources, which “students can be and should be seen as customers and key stakeholder” (Tonks & Farr, 1995).

Stukalina (2012) claimed “academic and pedagogy quality of teaching be as the most important in determine student satisfaction.” In investigate the different background of student tend to be more complex and difficult to do, but HEI can find the critical factors that can influence the level of student satisfaction, at least at a general needs of student that suits with the current learning environment. When discussing the concept of customer satisfaction, researcher finds that it hard to understand and measuring the level of student satisfaction because due to the variety of components that is can influence the level of satisfaction. For real, students’ satisfaction is a crucial factor that can be used in order to achieve the goals and objectives of higher learning institution.

Creating the relationship between the factors like campus services, technology and campus facilities and satisfaction of student can give some sort to HEI in how to evaluate student satisfaction. In addition, Helfert, Ritter and Walter (2002) argued

that “relationships are important and that the overall market orientation of organizations needs to be translated to a relationship level in order to be effective.” Conferring to Gronroos (1989), define “the marketing aim should be development of long-term customer relationships because they are being as a university most valuable resources.” Porturak (2014) define that student who satisfy with services and facilities provide by HEI will continue education with same institution.

Satisfaction level of customers will be increase when there is positive information about the quality spread among the people (Anderson, Fornell, & Lehmann, 1994). Quality of services used as a tools in making the comparison in what customer needs and how should organizations offer to their customer in term how they feel as a service provider (Parasuraman, Zeithaml, and Berry, 1988). Then, experiences student gain after use services, technology, facilities and so on make them able in judging the quality of what higher education institution provide for them (Selnes, 1993). For example, students can give higher level of rating on satisfaction, when HEI provided curriculum properly that meets or fulfill student requirement and needs, for instance, HEI provided them high quality of lecturer that has superior ability in teaching, and able to delivering the knowledge in different ways that suits with classroom environment. Then, student also aspect that lecturer create opportunities for them in developing their interpersonal skills like confidence in communicate, strong team spirit, able to present project in English, and others.

Owlia and Aspinwall (1997) classify “when universities accept the students as an important customer group, development and innovative in management changed and take a place in replacing the old management that suits to the current situation.” In fact, student

hopeful that their institutions preparing them with sufficient resources, that makes them eligible to be high quality of fresh graduate and also able to fulfill employer requirements. Moreover, Petry (1996) add which “when a relationship management approach is adopted, the basic understanding of what the students want is become crucial. According to Elliot & Shin (2002), “focusing on student satisfaction not only enables universities to re-engineer their organizations suits what student demand for, but it also allows them for developing a system that can continuous monitoring of how effectively they meet or exceed student’s needs.”

Porturak (2014) state “satisfactions of students play important role in determine education quality, which the support they get from education sector will make them satisfy with the services.” Then, the student’s satisfaction also plays an important role in “determining the originality and accuracy of the education system.” Muhammad, Rizwan and Ali (2010) define “higher the level of satisfaction experienced by the student, the better the student’s ability to groom their skill development, course knowledge and mentality.” Zeithmal (1988) mentioned that the “student satisfaction is an evidence to measure how well effective an institution administrative itself as well as its educational system”, and Rodie and Klein (2000), posited that if “an institution possesses essential educational facilities with affective teaching and training staff, the student will most likely be more motivated, loyal and good performers in their academic.”

Study in academic and non-academic fields, actually already done by most of prior researchers. For instance, when discussing about academic fields, student’s satisfaction data helps higher education create their curriculum settings to be more responsive related to need of changing in marketplace (Eyck, Tews & Ballester, 2009; Witowski, 2008) cited

in Tessema, Ready, and Yu (2012). According to Firdaus (2005), academic and non academic aspects related to student satisfaction, which for academic aspects looks into attitude of lecturer, how they communicate with student and other, and for the non-academic refers on aspects that relates to duties carried out by non academic staff. For ensuring that curriculum a more effective and responsive, it is crucial that higher education do more changes and evaluating in curriculum by concerning the curriculum of each college, department and program in HEI. According to Jamelske (2009), and Witowski, (2008), they clarify that the direct performance likes comprehensive examination, project development, and presentation be as something that should be evaluate by lecturer to measure the level of effectiveness of curriculum provide for the students, and indirect performance like student students' satisfaction will be use to measure student satisfaction on curriculum.

Asaduzzaman, Moyazzem, and Mahabubur, (2013) state that the efficiency of the administrative of the HEI also can influence student to be more motivated or inspired, and lead them to bemade satisfied with the service institution. Non academic should be re-evaluated therange of subject in courses and also preparing them with graduate attribute that helps them in their future. Undergraduate in higher education institutions, was provided with several of course offerings, which these courses are grouped under different categories, such as university-wide requirement, college course courses, required courses for major, elective in major and so on. It could be argued that the more options/choices in the above categories students have, the more likely they will feel satisfied with the curriculum. Availability of choice results in flexibility, which in turn affects individual's satisfaction level. Seaberry (2008),found that "scheduling flexibility

was a major factor for students' satisfaction" (cited from Marinakou, 2014). The preparation for career or graduate school by non academic also beof what student expect when they enter the higher education institution, because the career preparation can be a guideline for student after they graduate from university. Noel (1978) stated if student make a connection between what they learn in higher education institution with their career goals, they will be more confident and positive with HEI and automatically they will be satisfy (Corts, Lounsbury, Saudargas, & Tatum, 2000).

Not only about the campus services, student also expects something new and advanced from HEI in fulfilling their needs in interaction among them and everyone around the world without the limit and also helps them in search all information needs in fast respond. Student put wireless as an important thing that should be available around the campus that they can access anywhere, anytime they want, without any problem with the strong signal and continuity of access. According to Nyakudya (2013) researcher claim that student more prefer for wireless technology compare to computer laboratory, and student has largely satisfied with technology if issue of speed and connectivity flexible provided by higher education institutions. Technology also increase the satisfaction of the students in educational environment, which according to Doris, Billiger, and Oksana (2009), if "there are the experiences of technology difficulties or there is no access to sufficient technology and tools, satisfaction is likely diminish". Further, Stukalina (2012) emphasizes that "technology is an essential factor to establish an efficient system for internal communication in term of transferring knowledge in educational institution."

Students' satisfaction classify as an important tools use in measuring the quality of learning experiences (Moore & Kearsley, 1996). Then, the investigate student satisfaction

through the online settings become useful because the ways of how lecturer and student interact exactly influences by new technologies have altered in the classroom (Kaminski, Switzer & Gloeckner, 2009). The relationship between student and lecturer depends on how they handle the use of technologies. According to Parsad and Lewis (2008) define that “the quality of interaction in online settings may depend to a large extent on the technology tools utilized during learning” cited in Kuo, Walker, Bell, and Schroder (2013). Sometimes, not all the students can adapt the changed in classroom learning environment that can create dissatisfaction. When, student facing the problem such as lack of exposed in technology and feel not confident in using information and communication technologies (ICT), it may influence the level of students’ satisfaction when lecturer giving task, project, assignment and quizzes through online instruction, then because of that problems it can reduce students’ performances in education. Rhema et al (2013) conclude that “if satisfaction with technology was low, it were not surprising that the student just experienced the devastation that can reducing in student performances.” When they not satisfy they tend to not perform well. The environment of traditional education different compare to modern education, which in traditional way lecturer and students more involved in face-to-face teaching and learning, but in modern education the nature of teaching learning changed, because in online learning forcing the learner to be more depend on gadget such as laptop or notebook when browsing the information and communication (Moore & Kearsley, 1996). Artino (2007) and Puziferro (2008) state that “online learners who are unable to adapt themselves in learning effectively are unlikely to be satisfied.”

Student satisfaction can be influenced by many factors, for example, when they want to move from one place to another place, they need transportation service in the campus that should be provided accurately by university. Transportation services like transit bus in university play an important tool to ease students to move from one place to another in campus. According to Anderson, Baggett and Windener (2007), define that when the service operation fails to provide an efficient service which causes a delay in operation, it can affect customer satisfaction which can lead to dissatisfaction. For instance, bus route frequency has a major impact on customer's satisfaction, if service providers increase route frequency in strategic bus channels, it can lead to an increase in customer's satisfaction and bus patronage (Kostakis, 2009). Wall and McDonald (2007) stated that customer satisfaction will be achieved if there is improvement in the existing services in the bus or present new buses. Besides, Tyrinopoulos and Antoniou (2008) present that service frequency, vehicle cleanliness and coverage of network are the most important dimensions for customer satisfaction followed by waiting condition and tidiness, especially in buses. In addition, friendliness of the personnel especially bus driver behavior in good relation in treating customers gives an impact on customer satisfaction. Friendliness behavior of the bus driver can satisfy customers by developing better communication and knowledge of customers' needs (Disney, 1998). Zahayu, Masnita, Pei, and Tian (2014) define facilities of buses, attitude of the bus drivers and reliability of the buses as an important indicator of students' satisfaction on bus services.

Student satisfaction on library will decrease when university provided them low quality of facilities like not adequate relevant resources at library, low speed of internet, service queue, user instruction, and attitude of supporting staff (Adabio, Aidoo, and Korankye,

2012). In addition, student always aspects that they gain enough and adequate information in university library in complete task, assignment, research and so on. According to Sivathaasan (2013), he stated that an academic library plays a crucial role in order to contribute to its users in efficient and effective manner to satisfy their thirst of knowledge as well as their information society. Student satisfaction level is an important issue for academic library, because they important component to library, so every information exist for the sole aim in satisfying users (Daisy, 2006).

Student become as the important customers to higher education institution today, which HEI responsibility in enhancing and pay more attention in sustaining the level of satisfaction among student by providing them high quality in services, technology, facilities and others. According to Fauzia and Mahek (2012), begin from fifteen year ago, the number of student's enrollment in higher education institution is increased enormously, so it is very important for the institute to "satisfy their admitted students because success and sustainability of institute highly depends upon the satisfactions of students." When institution produced more excellent graduate from institution, it can increase the institutions reputation and also can reduced the number of unemployment among the fresh graduates.

2.3 Campus Services

Defining a "services" is a complex subject because has vary definition of the subject under this study. Based on Kotler, Keller, Ang, Leong, and Tan (2007) define that service is something that cannot be ownership like a product, that service provider act or performance offer for their customer. According to Evans and Collier (2007), they define that "service is any primary or complementary activity that does not directly produce a

physical product, which is represent the non-goods part of transaction between buyer (customer) and seller (supplier)". Service also play a roles that be using in providing the value which can satisfy customer who was purchased and use them, it can be standardized for the mass market or customized to individual needs, and it also can create and provided to customers by some type of process involving people and technology.

Zeithaml (1993) define that "services marketing did not emerge as a distinct research discipline until the late 1970s". According to Abdullah (2006) state "less four decades services have become the dominant from of economic activity and are now playing an increasingly important role in the economy of many nations."Palmer (2011) define "service as the production of an essential intangible benefit, either in its own right or as a significant element of a tangible product which trough some form of exchange, satisfies and identified need". Lovelock and Wright (1999) define that "service as something that may be bought and sold but that cannot be cannot be touch, smell and taste".

Services management academics have beendedicated as a great deal of energy to the definition and characterization of "service", mainlyon their differentiation from goods. According to John (1999)define that "there is still lack of consensus on a general definition of services." Based on Godsiff (2009) and Posington, to provide a context for argument, it should be briefly summarizes three distinct perspectives of services:

- i. Services can be defined as an industry that not involvedin the process of manufacturing goods. Lovelock (1983) state that "the service industry as a whole, consist different part of segmentations which is hotel services or banking services, although they are services provider but service provide by both relatively

different.” Then, from a management perspective, however, industry-based classification schemes are of little help since they overlook the fact that service operations characteristic often vary considerably within specific industries and even within organizations. This makes the “management of different service operations or service processes difficult” (Silvestro, 1992).

- ii. Service can be seen as an outcome of what customer receive from the services provider (Mohr and Bitner, 1995). It has been well explain that service outcomes share four specific characteristic that distinguish them from manufactured goods, which is: 1) intangibility; 2) heterogeneity (variability); 3) inseparability of production and consumption; and 4) perishability (Sasser, Oslen, and Wyckoff, 1978; Zeithaml, Parasuraman, and Berry, 1985).
- iii. Service can be described as “the manner in which the outcome is transferred to the customer” (Mohr and Bitner, 1995). According to Shostack (1982;1987) claims that services are processes, “series of interactions between participants, process, and physical elements” (Tax and Stuart, 1997). According to Chase (1978) and Shostack (1987) define that “service processes generally involve customer contact or/and customer participation, which is often regarded as the most striking difference between manufacturing and service operations.” Kellogg and Nie (1995) coined the “all-encompassing term customer influence to acknowledge that in services the customer takes part in the process of production and delivery.”

So, it become crucial in determine the different features of services, because from that part, people can recognized of these special characteristics that can help in differentiate

the function of service and product, and also can help in solving the problem arise within services and product. According to Singh, “services have a number of unique characteristics that it different from products.” Some of most commonly accepted characteristics are as follow:

- **Intangibility:** Service is differ from physical product, which is “services cannot be seen, touch, tasted, felt, heard, or smelled” (Kotler, Keller, Ang Leong, and Tan, 2012). Services can be define as an actions or performance which is different compare to the goods, where the services provides to customer cannot be tasted, seen, felt, or touched in the same manner as we do on tangible goods. For example, when we buy a variety of cakes, we can see, feel, smell, and taste to check whether is it taste delicious or not. But, when we pay fees for a tuition classes, we are paying for benefits of that we getting from the knowledge, skills, and educations which is delivered to us by teacher. Teaching is also part of intangible service. When we go to restaurant, the benefit which we are deriving is waiter and waitress treat us well as customer, but it has some tangible aspects such food and drink which are served. Then, intangibility create several challenged in doing a marketing, which service difficult to be manage because it cannot be inventoried, cannot be pattern in legally, cannot provide at maximum range when demand fluctuate and so on. Service cannot be pattern legally causes of it easy to copy by other rivals when services provider launch a new concept in the services. Then, the quality of services cannot be display on the shelf like tangible product, make it difficult to assess to customer. The actual costs of a ‘unit of service’ are hard to determine and the price/quality relationship is complex.

- **Perishability:** Kotler *et al* (2012) define that “perishability as services cannot be store the perishability can be problem when demand fluctuates”, for instance, public transportation companies have to own much more equipment because rush-hour demand than if demand were even throughout the day. According to the Singh, define that “services as perishability means that services cannot save, stored, resold, or returned.” Services, on the other hand, go waste if they are cannot be consumed. For example, a seat on a bus, hotel rooms, or restaurant space capacity not used cannot be reclaimed and used or resold at later time. The perishability of service is can be handled well when the demand is steady because it be easy for a staff give serve customer with advanced services. But if the demand wide fluctuations it can be worst if they don’t plan it well. To overcome this problem, there should plans strategies in producing a better match between demand and supply in service business.
- **Inseparability:** Service typically “produced and consumed simultaneously” (Kotler *et al*, 2012). For example if people use the services, services provider also involve in the service. Based on Singh, define that “inseparability as in most cases a service cannot be separated from the person or firm providing it.” A service is “provided by a person who possesses a particular skill (singer, doctor, etc.), by using equipment to handle a tangible product (construction) or by allowing access to or use of a physical infrastructure (home stay, airlines, etc.)” Services are typically produced and consumed at the same time. The services provider and the client are often physically present when consumption takes place.

- **Heterogeneity:** Kotler et al (2012) state that “since services are performances, frequently produced by human being, no two services will be precisely alike.” The human element is very much involved in providing and depiction services and this makes standardization a very difficult task to achieve. For example, buses, hospital, hotels, etc. they standardization in the procedure of operation. Heterogeneity also results because no two customers are precisely alike, each will have unique demands or experience the service in unique way. Thus, the heterogeneity connected with services is “largely the result of human interaction.”

In higher education institutions, the services that they provide to customers (student) different compare to other services provider. Therefore, higher education institution can be classified as “pure service”. According to Oldfield and Baron (2000), higher education can be seen a “pure” service, because it differ from other professional services in several ways which the educational services play important role in the students’ life and HEI also help in motivate student and train them in gaining intellectual skills and also interpersonal skills to attain the goals of HEI. Then, prior research also state that educational services different from other services, where education plays an important role in preparing student for intellectual minded, and soft skills are also necessary (Hasnain, 2013). There are many characteristics of the services found in educational services such as they are intangible, inseparability, heterogeneous, and perishable and are consumed at the spot hen produced (Shank, 1995). These characteristics which make the educational service unique (Zeithaml, 1985), these characteristic also make the service quality impossible to measure objectively (Patterson & Johnson, 1993). According to Cuthbert (1996) state “higher education institution as a services provider also satisfies the

perishability criterion since it is difficult to store, however ways to overcome this are evident, for example, the emergence of e-learning and video technology.”As a result, service sectors such as higher education are attempting to oppose the perishability characteristic of a service through the support from innovation and technological advanced that be adopted in institutions.

Identify the primary stakeholder in higher education is problematic (Cuthbert, 1996). According to Gruber, Fub, Voss, and Glaser-Zikuda(2010), state that “service providers can only deliver an effective service if they know what the customer wants.” Hills (1995) claimed that “students are the primary stakeholder of higher education services in UK, demonstrating that they play a key role in the production and delivery process of the service.” Besides that, Gruber *et al*(2010) contend that “students are specific and primary target audience, stressing the need for academic administrators to focus on understanding their requirements.” Then, in the higher education institution, according to Firdaus (2005)explain that “the definition of customer is quite different from the manufacturing or general services since the groups such as students, employers, academic staff, government, and family are all customers of education system with diversified of requirement.” While, Weaver (1976) sees four parties as potential customers, namely, government, administrators, lecturer/academics and actual customers (learners, their families, employers and society as a whole). Galloway (1988) seems to coincide with the general view that “the primary participant in the service education is the student.”

In addition, higher education institutions mission on development of student and university remains the same, whether the era and institution was different between each others, which is “university want their student enable to learn” (Report of the European

Commission, 2013). In the higher education students are not only train to gain a new knowledge but they also be shaping to be as critical minded thinker, expert in a problems solvers, excellent in working as team work and also has ability to be a leader when organizing team work or project. All of this mission should be support with academic services, which the quality lectures able to delivery benefit of knowledge to student thru their skills, knowledge and experiences. In addition, the graduate who has received high quality teaching is more likely to be adaptable, assured, innovative, entrepreneurial, and employable in the broadest sense of the term (Report of the European Commission, 2013).

Wiers-Jenssen, Steansaker, and Groggaard (2002) made various assessments where they closely scrutinized that “the pedagogical and academic quality of teaching, and they found that the important factors are close to teaching and social climate.” Neumann (1994) found that “dominant predictors of instructional satisfaction include clarity of instructional tasks, professors’ feedback and identity of instructional tasks.” By turning the focus towards the course content, the subject quality will be one of highest priority (Scott, 1999). According to Elliot and Shin (2002), stated that “university’s products are more than its academic program, it was the sum of the students’ academic, social, physical, and eve spiritual experience”. Hill (1995) shows an “interesting study where he presents the expectations and perceptions about university service of a cohort of undergraduate students in a United Kingdom university”. Hill (1995) concluded that the “stability of students’ expectations during the time of their university experience and suggested that they were probably formed prior to arrival at the university.” In addition, students’ perceptions of service experienced proved less stable over time. He proposed to

measure the students' expectations before they enter a university and not during their stay. Brenders, Hope and Ninnan (1999) found "appropriate to measure expectations only at the beginning of the university studies, taking into account which at that point expectations are at best vague and based on unrealistic comparisons with high school experiences."

Academic services in higher education can be determine in how lecturer deliver the knowledge for their student, which method they use, and how they treat their student in the lecturer-student relationship. The dimensions of teaching and learning in the educational is the different aspect of dimension, but both aspects depend on lecturer's capabilities, which the "effectiveness of lecturer has been theorized as one who create desire outcomes when undergo their responsibility as a lecturer" (Long, Zaiton and Kowang, 2013). Richards (2006) highlight that "any definition of lecturer competencies depends on teaching in a particular setting, the culture and value held in community, and it also depends on the innumerable lecturer and student characteristic and the classroom context." So, as a creative and innovation lectures, they will do many ways in attract student intention, which plans several types of activities in classroom, deliver quality knowledge and information and evaluate the learning using appropriate method and technique (Long *et al*, 2013).

Involvement of non-academic services staff in HEI, to be as a support department to higher education institution in entertaining student needs, and from that part it helps HEI in sustaining the successful of the student in university. In addition, the staff member of non academic play vital role in process of delivery services, and also guiding students regarding to admission and registration process, issue scholarship and awards, orient

them to the university, facilitate residence life programming, monitor their completion progress, deliver innumerable non-academic learning opportunities and help for preparing students courage for their next career stage. According to Carlzon (1989) define that the quality of any of service encounters, or “moment of truth” experienced by customers forms part of their overall impression of the whole service provided.

In this study, research interest is in focusing on academic and non-academic aspect of service that can help students in their education, personal growth, enhancing student’s soft skills (leadership, communication, team work, creative, etc.). In academic aspect of services, researcher will focus in how instructors play a crucial part such as how they used all facilities given and their competencies (skill, knowledge, experience) in delivery something worth to their student. Communication skills be one of the most factors, that can get attention from their students in classroom, so lecturer should arrange their word (simple, short, etc.) and level of voice (clear, smooth, etc) that attract student attention to attend the class and student feel enthusiastic in learning. For the non-academic aspects services, researcher will focus on what non-academic staff provide to student in help them in university, which focusing on student development programs (seminar, workshop, etc), course content, how the interact with student, and others.

2.3.1 Academic aspect services

Academic aspects includes “positive attitudes, good communication skills, sufficient consultation, regular feedback of lecturer to student, and transfer or delivering the ability of teaching staffs which relate to the responsibilities to student academic” (Firdaus, 2005). When talks about teaching and learning, both aspect be classify in two different dimensions of the academic world, the effective and efficiency for teaching and learning

depend on how lectures translate their capable to student and make student feel satisfy. Worst attitude and values of students, are not being affect from lack of lecturer ability in teaching, but Cohen (1981) and Theall and Franklin (2001) define that “the vary of student getting failure rates and the poor quality of the students its can reflection of the teaching quality or lack of lecturer’s competencies, which, in the others word, the incompetence of lecturers in classroom interaction with students could be responsible for the observed poor performance of students in classroom.”

In sustaining the quality in educational in institutions, HEI should hired an expert and experience lecturer in teach the student. High quality of education can’t be achieved unless there is a continuous assessment and put an effort in improving the performancesand teaching methods the lecturer use when delivering knowledge in the classroom. Student satisfaction met when lecturer in higher education institutions especially in the university take a serious responsibility in delivering quality education through apply effective ways of delivering knowledge, researches , reviewing and also updating their knowledge as well as improving the curriculum to satisfy the students as the students is the customer of institutions.

According to Richards (2006) find that “any definition of lecturer competence depends on teaching on a particular setting, the culture and values held in the community”. It also depends on the numerous lecturer and student characteristics and the classroom context. Through the above definitions it can be accomplish that, lecturer as primary factors in persuade students to learn effectively and efficiently, then preparing them well to ensure that they will able to compete in future. In fulfilling that intention, lecturer need to be more creative and innovative which in delivery the knowledge to student which planning

existing in classroom activity, deliver teaching in effective ways and evaluate the learning using appropriate methods and techniques. The effectiveness or ineffectiveness of teaching is closely linked to lecturer competencies. In the other words, “the competence of lecturers in classroom interaction with the students could be responsible for the observed poor performance of students in the classroom” (Cohen, 1981; Theall & Franklin, 2001).

The process in deliver the lecture in classroom should be prepare well by lecturer, which not only do a simply matter by standing in front of a class and talk everything that lecturer know, but lecturing in the classroom be as a special medium of communication when lecturer delivery their skills in which “how they arrange their voice, gesture, movement, facial expression, and eye contact can either complement or detract from the content” (Davis, 1993). According to McCarthy (1992) in article “Common Teaching Methods” stated “strength of lecture method that is presents factual material in direct, logical manner, contains experience which inspires, stimulate thinking to open discussion, and useful for large groups” cited in Adetunji (2014).

Swan (2001) find that “interaction with lecturers and active discussion among course participants and clarify of course design, which significant influenced students’ satisfaction and perceived learning.” Similarly, Shea, Pickett, and Pelz (2003) argued that “following issues are highly correlated with students’ satisfaction level: lecturer notes, lecturers’ direct interaction with students, and lecturers discourse facilitation.” Swan, Shea, Federicksen, Pickett, Pelz and Maher (2000) argued that “students preferred consistent course structure so that navigation does not change from one course to another.” While, based on Yang and Cornelius (2004) and Zeng and Perris (2004) found

that "students frustrated when their courses were poorly designed, and when instructors did not participate in discussion or responded to questions within a very limited time." This frustration may influence student performance which results in poor learning outcomes of students. The consequences indicate that an adequate number of "experienced professional lecturers" is important in enhancing the level of satisfaction among students in higher education institutions (Shin, Jonassen, Mcgee, 2003).

2.3.2 Non-academic services

In higher education, non-academic services also play an important role in helping the students regarding their study. Stukalina (2012) says that "in order to keep all lines of communication in the institution open, administration needs to collect data for understanding the situation where they are operating". Non-academic staff members consist of professional employees who contribute as a supporter for HEI management in achieving their goals and objectives. The success of higher education which is they bring to the higher education institution an important repertoire of professional skills, possess a wealth of institutional knowledge, provide essential resources, and work alongside of faculty and administration in realizing the higher education institution mission. Many have served through several administrations and numerous leadership changes at the departmental level. This long-term experience gives them invaluable expertise and lends consistency to the daily operations in HEI. The input and opinions are vital to many of our decision-making processes. Non-academic staff refers to aspects that relate to duties carried out by non-academic staff. The department has a legal duty that to provide such supervision and maintenance as is necessary to ensure the health and safety of all students in the higher education institution (HEI).

The contribution of non-academic staff highly impacts the student experience at HEI. While faculty's support students academically and in research, non-academic staff make equally important contributions toward the success of HEI students through many critical support and operational services. Staff members guide student through admission and registration processes, issue, scholarship and awards, orient them to the university, facilitate residence life programming, monitor their completion progress, deliver innumerable non-academic learning opportunities and help prepare them for their next career stage. Staff members, serving in academic departments or in students' service units, are usually the first point of contact for numerous students who need assistance in one form or another. It goes without saying that there are perhaps very few students whose positive experience at HEI did not include the contribution of one or more members of HEI non-academic staff.

According to Carlzon (1989) state that "the quality of any of service encounters, or 'moment of truth' experienced" by customers forms part of their overall impression of the whole service provided, (Dale, 2003) and by implication, their impression of the organization itself. All universities should manage all aspect of the student's interaction will all of their service offerings and in some others aspects involving its people in order to delivering high quality services to their students. Services are delivered to people by people and the moments of the truth can make or break university image (Banweet and Datta, 2003). In order to deliver total student satisfaction, all employees of the university should adhere to the principles of quality or customer service, whether they as front-line contact staff involved in teaching or administration, or non-contact staff in management or administrative roles (Gold, 2001; Low, 2000) cited in Banwet and Datta, (2003)

Porturak (2014) state that “staff service play important role in support student in HEI.” Galloway (1989) found that “faculty administration office in one UK University on student perception, he found that it impacted directly on students and influenced their perception on service quality, which based on : 1) Office has professional appearance; 2) Staff dresses smartly; 3) Never too busy to help; and 4) Opening hours is personally convenient.”

2.4 Technology

Lifestyle is changing gradually impact of development in technology. According to Collins & Halverson (2009) define everyone around the world whether citizens or professional who come from the various of fields keep update in the speed of changes in development of science and the advancement of new technologies in the country. It enough to prove that impact of development in the internet and mobile technology totally changed the ways of businesses and services which they tend to move online, for example, clothing shop, transportation services like airplane services, banking (e-banking), and so on.

Information technology (IT) refers to the products, methods, inventions, and standards that are used for the purpose of producing information. IT pertains to the hardware, software, and data components. The explanation of each component as above:

- **Hardware:** According to Kronke (2013) define that “hardware consists electronic components and related gadgetry that input, process, output, and store data according to instruction encoded in computer programs or software”. For example of “input hardware devices are the keyboard, mouse, document scanner,

and bar-code (Universal Product Code) scanners like those used in grocery shop.” Processing devices include “the central processing unit (CPU) which is sometimes called as a brain of the computer because CPU plays the roles in selecting instructions, processes them, perform arithmetic, and logical comparisons, and then store results operations in memory.” Then, for the “output hardware it consists of the video displays, printers, audio speakers, overhead projectors, and other special purpose devices, such as large flatbed plotters.” Lastly, for the storage hardware, it saving the data and programs which is by magnetic disk by far most common storage device, while optical disks such as CDs and DVDs also are popular devices in storage data.

- **Software:** The computer performs operations like addition, subtraction, multiplication, and division only when the user instructs it to do so. Kronke (2013) “the user issue instructions and the CPU acts in accordance with the instructions, then the sets of instructions, which control the sequence of operations, are known as programs, and collectively programs are called as software.” The software can be broadly classified into two categories which system software and the application software (Kronke, 2013). Kronke (2013) state that “the functions of system software been as tools in controlling the compute, and also has the devices divers and operating system and device drivers, which can communicate with the hardware” and “it also can modify data into a new form, prevent viruses and make copies, then, for the application software, its contains programs which can help users and enable companies to perform business functions, the users can increase productivity with the presence of

application software such as spreadsheets, word processing, ordering systems, and accounts receivable.”

- **Data components:** “Data describe of the collection of integrated record” (Kroenke, 2013) and data components it can be refers as “the raw facts on anything or entities like student names, courses, and marks, and the raw data that has not been provided can be processed to become more useful information. Information is an organized, meaningful and useful interpretation of data.”

After information technology integrate in all part of human life, all the activities daily most depend on technologies which for communication, shopping, in learning and so on. Most of people facing a big problem if their world without technologies such personal computers, the internet or wireless communications, that can limit their activities in communication, sharing information and in search information. In the recent years, the advance of information technology also influence in area of education which higher education institution also involve in integrating the new technologies in educationlearning. According to Haminti and Reka (2012) state that the “uses of technology lately more expressed in higher education institution compare to primary and secondary education.”Integrate of new technologies in educational processes also improving the social process thru the communication between the learner, instructor, and others. Based on Wash (2009), technology provide in education, can enhancing the education in many ways. For example, it can help students when doing a research, ease the ways in presentation, easy to communicate with others people, can enhance the skills in designing, easy to make discussion with friend in virtual, and others. Evans and Collier

(2007), define when the use of computers will be replaced by mobile technology, that causes wireless now has a big influence in technology landscape.

Wireless technology (WT) play a crucial role in students' life today which is "the replacement for traditional computer laboratories with computers connected using Ethernet cables and firmly fixed using chains and other security gadgets" (Nyakudya, 2012). Moreover, wireless technology also enable of connectivity to ease students in browse information for enhance their learning and also can sharing the information sharing among the people.

Then, information technology developed the concept of e-learning in higher education which is the evolvement of information and communication technology (ICT) (Wang, 2008). Rhema, Miliszewska, and Sztendur (2013) classify "e-learning is become a crucial stream and modern model of education worldwide, including in developing countries." E-learning been used in a modern ways in how student and lecturer in higher education institution in deliver or sharing information in the educational area. Then, the integration of ICT into education also will ease lecturer which give them an opportunity to deliver quality and creative lecture note, knowledge sharing, and changed the ways of teaching and also preparing students with information age era and also help in reducing energy in teaching and motivated student most (Ageel & John, 2012; Lindvall & Rus, 2003; Almalki & Williams, 2012; Abdul Kafi, 2006). Integrated of information and communication technology (ICT) into teaching and learning actually depend on lecturer's knowledge, confined, and skills in using of ICT (Reid, 2002), and it will become irrelevant if the lecturer lack in using ICT which they do not well trained to handle this technology (Ortega, 2000).

Sometimes when we want reach what we desire of, we should break the rules. Same as in education, for example, adopt a technology in education environment help the student and lecturer communicate, discussing problem in virtual, that can limit the time and energy. Lecturer and student also can communicate anytime and anywhere with support with wireless technology. Based on Holmes and Gardner (2006) says that “essential accounts it is seen as a restriction that universities must break out of major advance are to be made.” This dove tails well with the rhetoric of technological “revolution” espoused in the popular culture, but the subtle determinism embedded in the notion of technological revolution closes the door to analyses of the strong relations between traditional educationin teaching and learning practice, and the design of educational system.

In this study, on the technology part, researcher will focus on wireless technology and information and communication technology.

2.4.1 Wireless technology

Wireless Technology was define as “a network that uses radio waves instead of Ethernet cables for transmission of data packets to and from the computer” (Nyakudya, 2012), which is “no plugging of a cable to the computer and the wall if people want to access the internet.”Based on Bansal (2010) define “a wireless communication is a flexible data communication system implemented as an extension to or as an alternative for wired communication”. They also elaborate on the fact that wireless technology uses some standards (for local area networks) and one such standard which is predominantly used for local-area networks. Greenwood (2003) also define it as the “IEEE 802.11. IEEE is an abbreviation for INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS.”

These standards are used to “transmit and receive radio waves through the air medium” (Bansal, 2010).

Nyakudya (2013) define that “the integrated of wireless technology in campus, make internet access ease student more, convenient, and quite popular for students at the campus.” The uses of laptop, smart phone, notebook, tablets and others can available people to connect onto one large wireless local area network (WLAN), that will available in many places, for instance in classrooms, campus cafeteria, corridors, tree shades, car parks and also in students’ hostel. In addition, wireless technologies ease the connection to the internet which does not require computers with Ethernet connection. From that part, it lets the student to be free to access anytime and anywhere without to follow the policy and procedure like in computers laboratories.

Information sharing become more effective and efficient today because of development in technology which the wireless technology continues to rapidly change the medium of communication and environment, which turn the ways of life for most of people throughout the world in terms of connectivity. Wentzel et al (2005), state that “wireless technology continues to extend the boundaries of higher education into an anytime/anywhere experience.” The increasing growth in wireless technology (WT) has support the user in making the information can be access all the place that under wireless coverage and also unlimited time which users can access internet all the without the limit. This has been extensively discussed topic among others, (Riha, 2006; Thomas, 2005; Rogers, 2003; and Koprowski, 2006). This technology prove that the revelation to the world population as it continues to navigate through an unexpected growth stage with no decline in sight, thus aiding in effective and efficient information sharing among the user

around world. Based on Nyakudya (2012) classify that “the emerging technologies that changed the whole computing arena worldwide, and with this rapid development diffusion of technology, organizations are energizing themselves for the change and digital future, to ensure that they keep alongside with rapid development in information technology that can go a long way to separate the follower from the leaders.”

In university, availability of wireless around the campus help students in easeall the activity such communication, sharing information, searching for resource, searching schedule, and others. The availability of wireless is limited to certain area it can make their customer which is student be burden and influence their experiences. Then, speed of wireless also play an important role in helps student to find and sharing information, upload and download academic material effective ways. According to Bansal (2010) define wireless technologyas “high speed and high quality information exchange” between devices.” Hence, Greenwood (2003) state that “yardstick a wireless network based on, among others priorities, low cost, greater decision making tool for management, speed, high performance, convenience, throughput and response time”, while Thomas (2005) conclude that “wireless technology as mobility that helps in improved productivity flexibility, portability, ease of installation and cost/time savings.”

2.4.2 Information and Communication Technology (ICT)

People always learn something new and experience new thing in their daily life. Learning and experience make people be better in future. Rhema, Miliszewska, and Sztendur (2013) define that “the evaluation of information and communication technology (ICT) in education has shifted from the use of standalone data processors in computer labs, to advanced Web services that be use in teaching and learning.” According to Kim (2007),

there are numerous types of learning in education such as “class-based or virtual based, formal or informal and schedule or self passed.” Meanwhile, learning can also be classified as “technology-based or people-based, independent or dependent and directive or discovery oriented” (Rosset, Douglis, & Frazee, 2003). No matter how many categories of learning existed, learning is seen as “linkage between instructor, learner, classroom and technology.” For centuries, organizations and institutions of learning used classroom-based learning to deliver teaching and learning. Educational institutions can create virtual learning communities by using information and communications technology. The virtual environment can break physical borders, widening social networks and allowing greater interactivity and rewarding experiences. Many emerging technologies can emulate most traditional classroom equipment and enrich learning. In term of academic result, virtual learning environments have proven to be motivating contexts for learning and can be more successful than traditional ones. They are more flexible, more accessible and more inclusive.

The implementation of information technology in teaching and learning activity, use as a methods ease process of teaching and learning in higher education institution (HEI) in Malaysia (Farahiza, 2010). In addition, most of higher education institutions aware and started in adopt and implement information and communication technology (ICT) for example electronic learning in HEI, as solutions for education learning that can create source for flexible teaching and learning process either in the classroom or outside the classroom. The relation between lecturer and student is become vary, because the process of teaching and learning can be done anytime and anywhere.

The integration of ICT in teaching and learning has changed the way curriculum is designed, the way students, and it also changed the way of student learning and how it communicate each others. This technology is referred as technology-enhanced learning (TEL). Then, Farahiza (2010) state “e-Learning has become an increasingly significant part of the teaching and learning experience to the instructors and also to the students.” The exiting of virtual classroom learning, make users enables to close the gap and limitation posed by the traditional classroom learning. The survival of this technology makes possible variety of resource avenues, enables global networking for resources and provides sharing of information for the educational communities. It also helps lecturer shared the knowledge by individual or in a group. In a physical classroom, an instructor and learners collaborate together at the same. In addition, the combination of physical and e-learning classroom will enhance student knowledge and experience in study, and influence their satisfaction.

2.5 Campus facilities

Facilities in higher education institutions should be provided in adequately because it can causes the satisfy feeling among students. If higher education provided insufficient facilities for their students, it can be bad influenced for the successful of higher education. (Marmolejo, Gonzalez, Gersberg, Nenonen, and Calvo-Sotelo, 2007).The crucial in having a good physical environment quality higher education institutions is where students express a preferred for several aspects of upgrades classrooms, including tiered seating, lighting, and classroom noise control (Hill and Epps, 2010). Brewer and Carners (2008), indicate that “students view the new facilities favorably and as having a positive impact on student learning and satisfaction.” Hillet *al* (2010) suggest that

“college students do perceived differences in the classroom,they are particularly affected by classroom seating and overall classroom comfort the students enjoyed coming to class more in the upgraded room.”

Campus facilities are necessary to satisfy students in terms of student retention, because, they spend most of their time there and influenced by physical facilities. So, students attach importance to physical facilities expect social facilities. Particularly, they have the right to demonstrate attitudes to the existing facilities and system. According Cuseo (2003) defined that satisfied students are more enthusiastic and socially integrated or get involved in campus life and those student feel that they are part of their respective campus community, and also more likely to continue their graduation. Munawar (2011) says that “Higher their level of satisfaction greater would be the quality of students” and adds that “Level of satisfaction directly affects students’ performance”.

In supporting the nation’s aspirations to strengthen higher education and be a regional education hub, universities in Malaysia must ensure that the campus facilities was in placed to cater to the increasing population. For example, to public universities, ensuring the student’s ease mobility on campus has been of priority to the university where having a good infrastructure is not enough unless it is complemented by an equally commendable transportation system, including car service. Typically, bus users have the right to demand for an efficient and effective transport service as they are paying for it (Balsas, 2006). Besides easing traffic congestion, this is also a good form of exercise. However, this suggestion has not been favorable among the students citing heat, humidity and excessive sweating as the reasons for opting to rides buses.

Library facilities also one of the most important facilities that student needs most. The library has wide ranges of facilities to help students with learning materials, study places, carrel rooms, lockers, auditorium, audio-visual room and photocopying (Library UUM website, 2014).

In this study, researcher will use learning space, transport facilities, and library facilities as dimension of campus facilities.

2.5.1 Learning space

The organization for Economic Co-operation and Development (OECD) defines “educational space as a physical space that provide by institutions in supporting variety of teaching and learning programs and pedagogies” (Kuruskorpi and Gonzalez, 2011). The definition of physical learning environment can be explain as a providing space for teaching and learning, equipment in enhance teaching and learning , and additional tools that can support educational facilities. Additionally, the learning environment should be confederationof physical and virtual environments, and also social environment, facilitating both interaction, and individual privacy space in enhancing student learning processes. For example, students need space for learning, discussion and group work. Spaces for group work should be of different sizes, from auditoriums to small nooks.

As long as teachers have taught and students have learned, people have thought about learning spaces. In the age of information technology, the characteristic of learning space also should be transform by do renovate of learning space with adding modern equipment like computers, networks, electronic media to classrooms that can influence the ways of teaching and learning. Classroom is a learning space features and facilities the use of teaching and learning technologies (Perkins, 2005). Through the comfortable

layout in the classroom and adequate resource of technology, the learning space can be encourages and enables the application of alternative teaching and learning strategies, such as can support for active learning. The availability of computers lab also be as important space for student in searching information, and the equipment also should be upgrading to help students in learning.

According to Wiers-Jenssen *et al* (2002), support that all facilities of the higher education institution important in met student needs and satisfy them. Guolla (1999), define that the “level of student satisfaction will be decrease if HEI provided them not adequate facilities in classroom which poor quality of equipment in classroom, it can causes the instructor may has a limited resource in changing their method of teaching”. So, the campus environment can be seen as a web of connected happenings that influence students’ satisfaction (Elliot and Shin. 2002).

In the higher education institution, researchers have recently examined the components that be upgraded, or “smart” in the classrooms has a potential in influencing student learning. For instance, implement specific equipment like audio-visuals, LCS, and etc, in classroom also can delight the student much. Griffin (1990) says that “uses person-environment interaction theory to describe the potential impact of physical design, visual factors, aural factors and physical stimulation on higher education students.” Banning (1993), notes that the “physical environment of the HEI classroom can impact student learning by signaling desirable instructional behavior and by communicating the level of formality that is expected in classroom interaction.”

2.5.2 Transportation facilities

Transportation facilities become crucial in place that their people depend most on public transportation. For example, in higher education institution (HEI) student depend on bus services that provided in campus to move from one place to another because of the long distance between the faculties. In University Utara Malaysia (UUM), bus services around the campus provided by university for student to ease student life and satisfy them. According to Zahayu, Masnita, Lee, and Ho (2014) state that UUM is implement the policy of 100% accommodation in campus, public transportation be one of the facilities that provided by university. Then, UUM also provides a daily route of bus services in campus promote green environment in campus without air pollution.

Moreover, transportation play role in help in the movement of people or goods from one place to another that ease people life. The complex relationship can be create among network, space and demand of transportation services. Zahayu et al (2014) state that “sharing the use public services such transportation not only created efficiency in mobility of passengers but it also give a good influence to economy and also protect environment from air pollution.” For example, University Utara Malaysia provided bus services around the campus to ease their student to go for classes, and do activity around the campus. A good and efficient bus/shuttle facilities services needs to ensure that the students can attend class or go somewhere else on time and without delays that can influence their satisfaction.

Bus services providing in campus should become a solution for decrease number of demand for spacing to park student own transport like car and motorcycle, and it actually help in reduce traffic in campus. In almost university campuses in Malaysia, students

depending to transportation facilities as transport that they used in moving from one places to another. Poor quality services of the campus bus services will cause students miss classes, waste precious time and effort. Level of student satisfaction also can be decrease if the bus availability is not as schedule given.

An attitude of bus driver also as an issue in bus services which can influence student satisfaction. For example, the kindness of the personnel especially bus driver behavior important in relation to service frequency has an impact on customer satisfaction. Then, the kind, friendly, and honest behavior of the bus driver also can satisfy customer when they show good attitude in communicate and knowledge to its customer needs (Disney, 1998). As far as frequency is concerned, “frequent services increase satisfaction and urban transportation patronage” (Taylor, Miller, Iseki, and Fink, 2008)

2.5.3 Library facilities

Gaining vary in knowledge was the aims for the student when they enter to higher education institution (HEI). So, to fulfill student needs, HEI provided students an academic library as a place that they can go and find support information that can strengthen students’ knowledge. Academic library plays a vital role in order to contribute its users in an efficient and effective manner to satisfy their passion of knowledge as well as in information society (Ababio et al, 2012). After that, academic libraries also provided facilities like computers rooms and internet access to ease and help users to connect with all the people in virtual spaces. In addition, academic library university also play roles in supporting their universities’ goals of developing and maintaining successful research programs. Academic libraries also essential mission of college and universities across the nation, for instance, they claimed that “the library is the physical manifestation

of core values and activities in academic” (Soria, Fransen, Nackerud, 2013) and also support the objective of academic environment in the areas of learning, teaching, research, and services (Aina, 2004).

Furthermore, library system that when it significantly contributed to student and other user’s development in a wider perspective, it can be consider as effective and efficient in provided their facilities and services to library users (Ababioet al, 2012). An enthusiasm academic library, be as important component of any high quality academic institution in serving their users like lecturers, students as well as other researchers. According to Kosto (2010), state that academic libraries giving high support in the research process by providing resources that can be use by user in term of collecting, preserving, and making available manycollection of information resources relevant to their research community. Library become effectiveness when they can cater all the problem arises meets the users’ needs that related to the library’s goals and objectives (Nwalo, 2003). After that, not only the resources provided by academic libraries can satisfy student, but their librarian staff also play important role in giving help and giving a support to all users of libraries in completing their tasks (Jubb and Green, 2007).

In the academic library, has variation of resources that can be used by their users, and they also will be support by the librarians that give encourage and serve users promptly with the high level of experiences and skillful staff that has more knowledge in libraries management. Popoola (2001) availability of information in the library website not all of the sources can directly be access, to overcome the problem academic library should make more sources available that can fulfill customer needs. Mason (2010) also shared the same opinion and suggests that librarians should be more honest, caring, and willing

to help to all students and that need their help regarding the facilities and service in academic library.

Holley and Powell (2004) classify students' awareness and satisfaction regarding using of electronic information resources and services provide by university libraries. The academic libraries are currently facing their greatest challenge due to global digital revolution (Chandrasekar, and Murugathas, 2012). According to Greenstein and Healy (2002), the Outsell study focused on how the internet is affecting the work of students and scholars and what consequences Internet use will have on academic libraries. With e-library, users can access the libraries' resources without stepping into the library building. They can also easily access those resources through online. But somehow, they will frustrated to use electronic resources related to access problems and relevancy of the material, if everything provide in ease of use, relevancy of resources, it can be the reasons most frequently for using electronic resources. The library provided a wide ranges of facilities to as tools and effort in helping students regarding the learning materials and resources, comfortable place for study, carrel rooms for group discussion, lockers for security, auditorium, audio-visual room and photocopying machine (Library UUM website, 2014). Student access to library not only because of the books, sometimes they find comfortable place that has complete facilities to do their report, assignment, project and so on. They also access the library to do group discussion. So, all facilities needed should be available and in goods conditions to ensure that students feel satisfy and complete the task will higher motivation.

2.6 Hypotheses

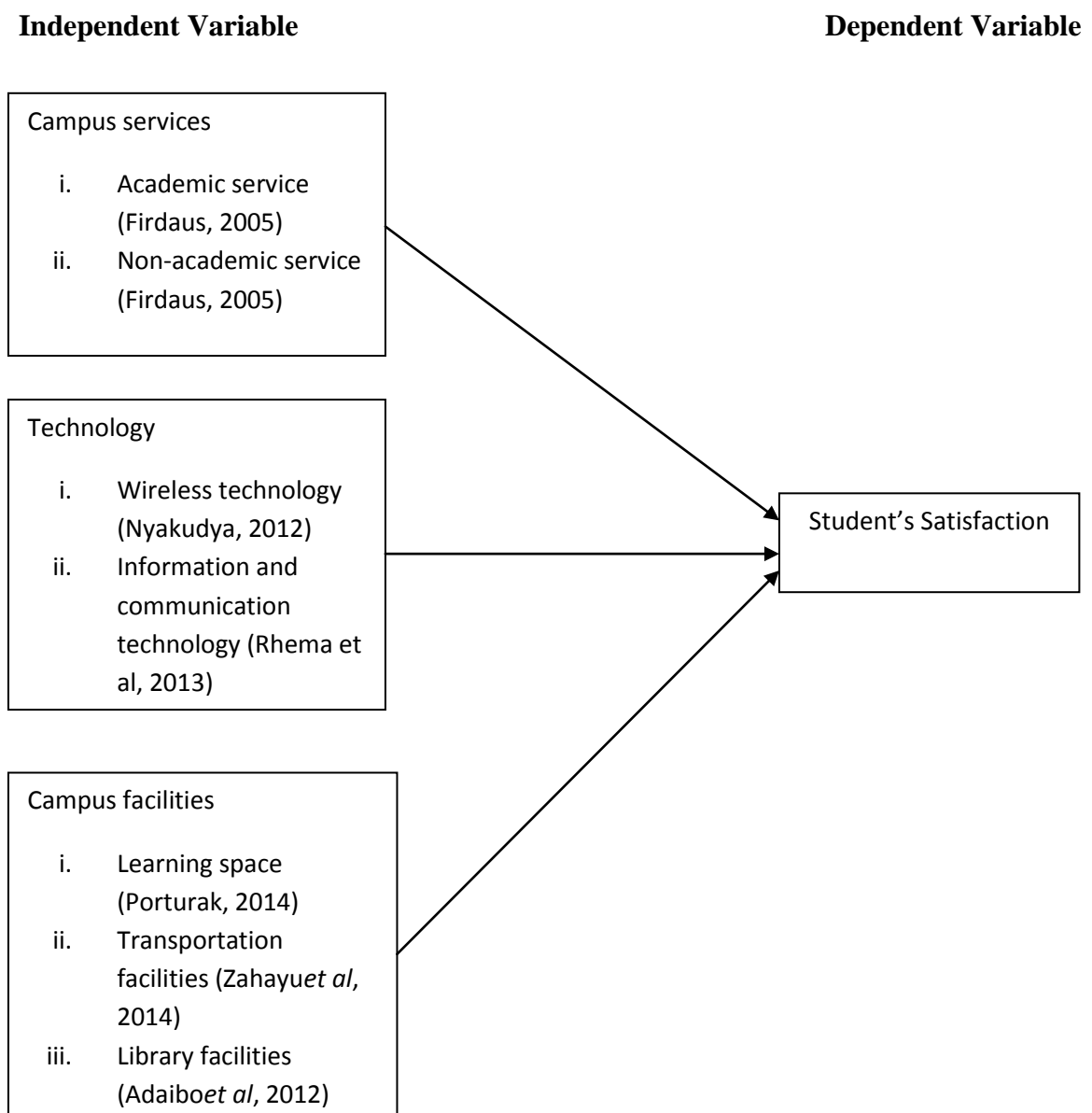
H1: There is a significant relationship between campus service and student satisfaction

H2: There is a significant relationship between technology and student satisfaction

H3: There is a significant relationship between campus facilities and student satisfaction

2.7 Theoretical framework

Figure 2.1: Theoretical Framework



CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will describe about methodology that will adopt in this study. It will present about several topic that used in this study such as research design, population and sample design, data collection method, measurement/instruments, and data analysis.

3.2 Research design

A research design is a “blueprint for the collection, measurement, and analysis of data, based on the research question in study” (Sekaran&Bougie, 2013). Different approach has been used by researchers and they can be generally divided into two types which is qualitative and quantitative.

Quantitative research refers to the “process of quantifying and interpreting data through the application of statistical analysis technique”. While, the findings from qualitative data analysis are “expressed from in the form of numerical trends”, so that a solution to a particular problem can be derived based on the statistical patterns found (Awais, Hoe, &Veera, 2012). This study conducting a quantitative approach because the researchers know about the topic by review journals, read from books and so on. The nature of this study hypothesis testing, so quantitative design will be apply in this study whereby survey will be conducted by distribute questionnaire. The researcher will measured this study by using nominal scale and interval scale and it will be compute in questionnaire. Researcher used the 5 Likert scale point as instrument in measure the variable.

In doing research have two major of sampling doing a research, have two types of sampling can be used by researcher in Probability sampling or non probability sampling. Researcher used non probability sampling method, that elements from the population do not have equal chance of being selected as a subject of study (Awais, Hoe, and Veera, 2012). According to Awais *et al* (2012) state “convenience sampling is conducted when the researcher collects the data from the population where respondents are easily available or the researcher has easy access to respondents”, and “convenience sampling is the best way to collect data quickly and efficiently.”

3.3 Population/sample design

Unit of analysis refers to “the level of the data collected during the subsequent data analysis stage” (Sekaran *et al*, 2013). In this study, it was focus on campus services, technology and campus facilities affecting on student satisfaction that will cover by the researcher, individual will be the unit of analysis because researcher want to the test satisfaction as individual.

3.3.1 Target population

The population refer to “entire group of people, events, or things of interest that researcher wishes to investigate, for instance the group of people, events, or things of interest which researcher wants to make inference based on sample statistic” (Sekaran *et al.*, 2013).

In this study, researcher interest is focus on Malaysia higher education institution, which is mainly focus on undergraduate student (fulltime) in University Utara Malaysia (UUM). Currently, the total number of undergraduate student in UUM main campus is 22, 932

students (HEA UUM, 2014). But for the hypothesis testing, researcher will make the number of sample become more less to ensure the accurate of testing.

A sample is a “subset of population, that is comprises some members selected from it population” (Sekaran *et al*, 2013). For example, some, but not all element of population can be forms as sample. In this study, researcher interest is to focus on University Utara Malaysia. The researcher will used undergraduate student as respondent which 22, 932 in population, and for the sampling the number of respondent will be used 500 undergraduate students. According to Roscoe (1975), propose the following rules of thumb for determining sample size which “sample size larger than 30 and less than 500 are appropriate for most research. In this study, researcher distributed 500 set of questionnaires around the campus. Researcher collected 450 set of returned questionnaires but only 377 set of questionnaires completely answer.

3.4 Data collection method

Both primary and secondary data was collected to analyze the relationship between campus services, technology, and campus facilities and student satisfaction in University Utara Malaysia (UUM) Kedah.

3.4.1 Primary data

Primary data refer to “information obtained first-hand by the researcher on the variables of the interest for the specific purpose of the study” (Sekaran and Bougie, 2013). In this study, the researcher collected primary data through questionnaire survey to achieve the specific objectives. The researcher collected the data by distributing hard copy of questionnaires, and the questionnaire was distributed in UUM campus.

3.4.2 Secondary data

Secondary data refer for to “information gathered by someone other than the researcher conducting the current study” (Sekaran and Bougie, 2013). This study also used the external secondary data such as books, journal, article, and etc.

3.5 Measurement/instrument

Measurements define as “gathering data in the form of numbers, that to be able to assign numbers to attributes of objects we need as scale” (Sekaran *et al*, 2013). Then the scale are define as “tool or mechanism by which individuals are distinguished as to how they differ from one another on the variables of interest to our study” (Sekaran *et al*, 2013). There are four basic types of measurement scales, which is “nominal, ordinal, interval, and ratio scale”, it will be used to measure people opinions related to the variable of interest in research (Awai *et al*, 2012).

In the questionnaire, three sections will construct, and questionnaire design will be developing as below:

- i. Section A – Respondent Profile**
- ii. Section B – Independent Variables (campus services, technology, campus facilities)**
- iii. Section C – Dependent Variable (students’ satisfaction)**

Table 3.1
Sources of questionnaires

Variable	Explanation
Campus services	13 items in campus services divided for two dimensions which is academic services and non-academic services. 7 items for academic services and 6 items non-academic services adapted from Firdaus (2005).
Technology	12 items in technology divided for two dimension which is wireless technology and information and communication technology (ICT). 5 items for wireless technology adapted from Nyakudya (2012) and 7 items for ICT adapted from Rhemaet <i>a</i> (2013).
Campus facilities	14 items in campus facilities divided for three dimension which is learning space, transportation facilities, and library facilities. 4 items for learning space adapted from Porturak (2014), 3 items for transportation facilities adapted from Zahayuet <i>al</i> (2014) and 7 items for library facilities adapted from Ababioet <i>al</i> (2012).

Table 3.1 (continue)

Students' satisfaction	21 items for students' satisfaction adapted from: 1) Firdaus, 2005; 2) Nyakudya, 2012; 3) Rhemaet <i>al</i> 2013; 4) Porturak (2014); 5) Zahayuet <i>al</i> (2014); and 6) Ababioet <i>al</i> (2012).
------------------------	---

3.6 Data analysis techniques

After collect the data distribute by researcher, data analysis will be done using Statistical Program for Social Sciences (SPSS) software. Below are list of analysis that will conduct to interpret the data questionnaire:

- 1) **Descriptive statistics** – the descriptive have been used by researcher in term of to find demographic frequency and percentage of respondents in this study. Demographic section divide by gender, age, race, level of study, semester, and status of student whether local or international student.
- 2) **Reliability analysis** – The reliability of a “measure indicates the extent to which it is without (error free) and hence ensures consistent measurement across the time and across the various items in the instrument”. In other words, the reliability of a measure is an “indication of the stability and consistency with which the instrument measure concept and helps to access the goodness of a measure” (Sekaranet *al*, 2013). Refer to the extent to which scale produce consistent result if repeated measurement are made (Awaiset *al*, 2012). Cronbach alpha will use in reliability analysis. As a measure, if Cronbach's Alpha is 0.60 and above consider as poor and but acceptable, if the value of alpha is more than .70 is acceptable and reliable.

- 3) **Correlation Analysis** –Correlation analysis is used to “find the relationship between two or more sets of variables”. It also tells the direction as well as how much relationship exist between these variables. In this study, we used Pearson’s coefficient of correlation which is one of the most popular methods to measure relationship between variables. The value of the correlation lies between “-1” to “+1”. The positive value of correlation shows that there is a relationship exist and the more the value of coefficient the more the strong relationship.
- 4) **Analysis of variance (ANOVA)** – ANOVA is the notion of variance. An analysis of variance (ANOVA) is a “statistical technique used for examining the differences between the means of two or more populations” (Awais, Hee, and Veera, 2012). ANOVA use to test hypothesis that is appropriate to compare means of a continuous variable in two or more independent comparison groups.
- 5) **Multiple Regression Analysis** – Multiple regression analysis is a “flexible method of data analysis that may be appropriate whenever a quantitative variable (the dependent) is to examine in relationship to any other factors (independent variables).” Relationships may be nonlinear independent variables may be quantitative or qualitative, and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account (Cohen, West, & Aiken, 2003).

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This research aims to investigate the influence of campus service, technology, and campus facilities on student's satisfaction at University Utara Malaysia (UUM), Kedah. In this chapter, researcher will discuss three main topics which is descriptive analysis, reliability analysis, and multiple regression analysis. In descriptive analysis, researcher will explain in detail about demographic section of respondents, that include of gender, age, race, semester, and status of student whether local or international student. Then, the researcher continued the analysis from descriptive to reliability analysis. The crucial reason why researcher should run the reliability analysis is to provide evidence that questionnaire use by researcher can be used, acceptable and reliable. When the questionnaire measurement is acceptable, researcher continue the analysis with doing multiple regression analysis because it was the only statistical technique that suits with this study which have three interval scale independent variable and one interval scale of dependent variable. Hypotheses statement use in this research was a non-directional because researcher though it may be conjectured that there is a significant relationship between two variables, researcher may not able to say whether the relationship positive or negative. So, to ensure the significant of relationships, each hypothesis should be test and researcher will collect the result from analysis run by SPSS.

4.2 Response rate

In this study, researcher used a local area as a placed to distributed questionnaire which is in all around University Utara Malaysia (UUM) campus, and the suits method in collecting the data is by doing the personally administer. According to Sekaran and Bougie(2013), stated that “the main advantage of doing personally administer questionnaire was the researcher or the team member of the research can collect all the completed responses within in short period.” Then, by applying this method also can afford the opportunity to researcher for introduce the research topic and motivate respondent to offer the frank answer. A questionnaire was distributed to 500 undergraduate students in UUM. Then, 450 set of questionnaire returned but only 377 set of questionnaires complete answer. So, 377 set of questionnaire will be run for data analysis in this study.

4.3 Descriptive Statistic

Respondents’ demographic characteristics be analyze using descriptive analysis, that consist of gender, age, race, level of study, semester, and status of student which is local or international student. For the gender items, it will divide to male and female, and after make descriptive analysis, the frequency of both male and female is 169 (44.8%) and 208 (55.2%). The age of respondents available for students that under 20 years old and 20 until 25 years old which 104 (27.6%) and 273 (72.4%). Race of the respondent in this study, majority of the respondents is Malay 221 (58.6%), Chinese 57 (15.1%), Indian 52 (13.8%), and others 47 (12.5%). The respondent come from vary number of semester which semester 1, 2, 3, 4, 5, 6 and above, the frequency of respondents is 96 (25.5%), 32 (8.5%), 58 (15.4%), 68 (18.0%), 68 (18.0%), and 55 (14.6%). Majority of the

respondents is local students which 328 (87.0%), and international student is 49 (13.0%). The respondents mixed between international and local student because the researcher want to look the comparison existing between local and international student on how they expect on the campus services, technology, and campus facilities that provided by UUM meet or exceed their expectation and enhance the level of satisfaction

Table 4.1
Profile of Respondents

Demographic Characteristic		Frequency	Percentage (%)
Gender	Male	169	44.8
	Female	208	55.2
Age	<20 years old	104	27.6
	20-25 years old	273	72.4
	26-30 years old	-	-
	31 years old and above	-	-
Race	Malay	221	58.6
	Chinese	57	15.1
	Indian	52	13.8
	Others	47	12.5
Semester	1	96	25.5
	2	32	8.5
	3	58	15.4

Table 4.1 (continue)

	4	68	18.0
	5	68	18.0
	6 and above	55	14.6
Status	Local student	328	87.0
	International student	49	13.0

4.4 Reliability analysis

The reliability of a measure “indicates the extent to which it is without (error free) and hence ensures consistent measurement across the time and across the various items in the instrument.” In other words, the reliability of a measure is an “indication of the stability and consistency with which the instrument measure concept and helps to access the goodness of a measure” (Sekaran et al, 2013).

Cronbach’s alpha is computed in terms of the average inter-correlations among the items for measuring the concept. Cronbach’s alpha is a “reliability coefficient that indicates how well the items in a set are positively correlated to one another”. The closer cronbach’s alpha is to 1, the higher the internal consistency of reliability. Consistency indicates how well the items measuring a concept combined together as a set.

Table 4.2
Scale of Cronbach's Alpha

Alpha Coefficient Range	Strength of Association
< .6	Poor
.7 < .8	Acceptable
.8 and above	Good

Sources: (Sekaran et al, 2013)

Table 4.3
Reliability statistics

Variable	Cronbach's Alpha
Campus services (IV)	0.800
Technology (IV)	0.886
Campus facilities (IV)	0.830
Student's satisfaction (DV)	0.850

Table 4.4
Scale statistics

Variable	Mean	No of items
Campus services (IV)	4.1175	13
Technology (IV)	4.2995	12
Campus facilities (IV)	4.1506	14
Students' satisfaction (DV)	3.7195	21

In this study researcher used three independent variables (IV) which is campus services, technology, and campus facilities. Table 4.2 shows the scale of Cronbach's alpha. From table 4.3 show the alpha value results from reliability analysis state that campus services was "0.800", the value for technology was "0.886", and the value for campus facilities was "0.830". All the values calculated was above the acceptable value, so we can claim that our scale were acceptable and reliable. For the dependent variable (DV) student's satisfaction the alpha value was 0.850, also acceptable and reliable. Regarding table 4.4 scale statistic show the value of means for all variable, for instance, campus services with the number of items is 13 the mean 4.1175, for technology the number of items is 12, mean values is 4.2995, campus facilities the number of items is 14 and mean is 4.1506, and students' satisfaction the number of items is 21 and mean value is 3.7195.

4.5 Correlation analysis

Correlation analysis is "used to find the relationship between two or more sets of variables". It also tells the direction as well as how much relationship exist between these variables. The value of the correlation lies between "-1" to "+1". The positive value of correlation shows that there is a relationship exist and the more the value of coefficient the more the strong relationship.

The table 4.5 shows that results of correlation values of different variables. Researcher used 2-tailed significant because this study is use non-directional hypotheses which researcher do not know whether correlation is positive or negative between independent variables (campus services, technology, and campus facilities) and dependent variable (students' satisfaction). The first variable campus services in relation to the dependent variable students' satisfaction has the coefficient of correlation of "0.417" which a

positive relationship between the campus services and the students' satisfaction. It means that if more and good campus services are provided to students they are more satisfied. Similarly, the second independent variable of technology also has positive correlation of “.232” with dependent variable students' satisfaction. The third and last independent variable in this study is campus facilities provided to students by university. This variable also has a positive relationship with the dependent variable students' satisfaction and the value of coefficient of correlation is “.218”. All the independent variables used in this study have a positive relationship with dependent variable which shows that they significantly affected the dependent variable.

Table 4.5
Results of Correlation

		Satisfaction	CS	T	CF
Student Satisfaction	Pearson Correlation	1			
	Sig. (2-tailed)				
Campus services (CS)	Pearson Correlation	.417**	1		
	Sig. (2-tailed)	.000			
Technology (T)	Pearson Correlation	.232**	.576**	1	
	Sig. (2-tailed)	.000	.000		
Campus facilities (CF)	Pearson Correlation	.218**	.466**	.491**	1
	Sig. (2-tailed)	.000	.000	.000	

**Correlation is significant at the level 0.01 level (2-tailed)

4.6 Multiple Regression Analysis

Multiple regression analysis is a “flexible method of data analysis that may be appropriate whenever a quantitative variable (the dependent) is to examine in relationship to any other factors (independent variables).” Relationships may be nonlinear independent variables may be quantitative or qualitative, and one can examine the “effects of a single variable or multiple variables with or without the effects of other variables taken into account” (Cohen, Cohen, West, & Aiken, 2003).

Regression analysis was chosen for its fits well the hypotheses testing and analyzing how independent variables can be used to predict a dependent variable. Fitness of the model built for this study is examined by this kind of standard regression analysis. The analysis shows how much of the total variance in the dependent variable (student’s satisfaction) is possible to explain by independent variables: campus services, technology, and campus facilities.

The basic idea of multiple regression analysis is similar to that of simple regression analysis. It will be different when the study used more than one independent variable to explain variance in the dependent variable, so researcher used multiple regression analysis (Sekaran *et al*, 2013). Multiple regression analysis is a multivariate technique that is used very often in business research, which is the starting point of multiple regression analysis is the theoretical framework model, and the hypotheses derived from that model that the researcher developed in an earlier stage of the research process. Multiple regression analysis provides a means of objectivity accessing the degree and the character of the relationship between the independent variables and the dependent variable. The regression coefficient “indicated the relative importance of each of the independent

variables in the prediction of the dependent variable.” For example, suppose that a researcher believes that the variance in student satisfaction can be explained by three independent variable which is campus services, technology and campus facilities. When the variables are jointly regressed against the dependent variable (student satisfaction) in an effort to explain the variance in it, the sizes of the individual regression coefficients indicate how much an increase of one unit in the independent variable would affect the dependent variable, assuming that all the other independent variable remain unchanged. The individual correlation between the independent variables and dependent variable collapse into what is called as multiple r or multiple correlation coefficient. The square r, R-square, or R^2 as it is commonly known as “the amount of variance explained in the dependent variable by the predictors.” The result of multiple regression analysis shows in three steps which is model summary as in the table 4.6 (a), result for ANOVA in table 4.6 (b), and results for coefficient in the table 4.6 (c).

4.6.1 Multiple regression results

Table 4.6

a) Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.419	.175	.169	6.68560

a. Predictors: (Constant), campus services, technology, campus facilities

b. Dependent Variable: Student satisfaction

Based on model summary in table 4.6 (a), the specification of independent variable reveals the ability to predict student satisfaction. The R^2 for the model is 0.175, which means that 17.5% variance of students’ satisfaction explained by all combination of

independent variables (campus services, technology, and campus facilities). Remaining 82.5% variance in the student satisfaction is related to other variable is not explained in this study. R square value indicated that there may be number of variables which can have impact on the student satisfaction that need to be studied. Hence, this area is indicated as a scope of future research.

Table 4.6
b) Analysis of Variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3545.391	3	1181.797	26.440	.000
Residual	16672.09	373	44.697		
Total	20217.48	376			

- a. Dependent Variable: Student satisfaction
- b. Predictors: (Constant), campus services, technology, campus facilities

ANOVA is the analysis of variance, the results in table 4.6 (b) cell “df” show the degree of freedom which means the number of independent variables which are three. Then number show 373 shows the total number of cases minus 3 minus 1, for example (N-3-1). The value of F is 26.440 at .000 levels ($p < 0.005$) which show that the dependent variable (student satisfaction) is significantly influence and predicted by the independent variables (campus services, technology, and campus facilities). The results of ANOVA show that all the variables significant to each others.

The three hypotheses we made about the relationship between independent variables (campus services, technology, and campus facilities) and dependent variable (students’ satisfaction) are tested in this table 4.6 (c), which the result which shown the significant

or not significant relationship exist between all the independent variables with the dependent. As this study use non-directional hypotheses researcher cannot make any assumption before testing the hypotheses relationship. In the 3 step in multiple regression analysis result, which coefficient table, it will provide the coefficient results in table 4.6 (c).

Table 4.6
c)Result of Coefficient

Model	B	Unstandardized		Standardized		Sig.
		Std. Error	Coefficient	Beta	t	
1 (Constant)	43.580	4.381		9.947		.000
Campus services	.612	0.088	.415	6.963		.000
Technology	.031	0.074	-.025	-.417		.677
Campus facilities	.051	0.076	.037	.670		.503

a. Dependent Variable: Student satisfaction

From the coefficient table 4.6 (c), researcher will used standardized coefficient or beta coefficient result as the output for analyze because in this study researcher used the same scale for independent and dependent variable, for instance, researcher use five Likert-scale in measuring all the items questionnaire. In the table it can be seen that Beta for the campus services is .415 at the significant level .000 ($p < 0.05$), technology is -.025 at the significant level .677 ($p > 0.05$), and campus facilities beta is .037 at the significant level .503 ($p > 0.05$). The significant value of campus services is lower than alpha value 0.05 ($p < 0.05$), it result that campus services significantly impact on student's satisfaction.

But, for technology and campus facilities their significant value is .677 and .037 more than alpha value 0.05 ($p > 0.05$), the results show that technology and campus facilities is not significant with student satisfaction. The campus services result in significantly with student's satisfaction which reveals that campus services is the most important variable contributing to the student's satisfaction compare to technology and campus facilities.

The students of higher education institutions are most satisfied with campus services because campus services is properly provided by university compare to technology and campus facilities. As in campus, they are entertained only through the campus services, this factor is important with the studies, so student ranked this factor better for their satisfaction because of the services provided by university are met or exceed their needs. Technology one of important tools for student to ease them in study and give a fast and vast in communication, but the result is not significant maybe because of wireless technology and/or information and communication technology (ICT) provided in university still lacking or not sufficient for them, which is not enough to fulfill their needs. Lastly, for campus facilities the result is also not significant with student satisfaction maybe undergraduate's student do not concern with learning space, transportation and library facilities provided.

After doing the analysis and test the hypotheses, we can conclude that only H1 is significant to students' satisfaction, while H2 and H3 are not significant with the student's satisfaction.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This study “The factors affecting student satisfaction in University Utara Malaysia, Kedah” firstly determine the campus services, technology, and campus facilities provided by university and the student satisfaction. This is the last chapter where discussion and conclusion are discussed. To accomplish the research objectives, a questionnaire survey was conducted by using quantitative survey. Research questions were adapted from: 1) Firdaus (2005); 2) Nyakudya (2012); 3) Rhema, Miliszewska, and Sztendur(2013), 4) Porturak (2014); 5) Zahayu et al (2014); and 6) Ababioet *al*, (2012). The questionnaire only do in one format which hard copy, researcher do not do online survey because of limit in time, and the questionnaire was distributed all around the campus, the respondents chosen only from undergraduate students. Researcher distributed 500 set of questionnaire, and 450 returned back but only 377 set of questionnaires completely answered.

5.2 Discussion

This study aims to find the relationship between student satisfaction and campus services, technology and campus facilities provided in University Utara Malaysia. In this study researcher tries to answer the question which:

1. *Determine if has the relationship between campus services, technology, and campus facilities and students’ satisfaction?*
2. *Which critical factors of variables that impact most to the satisfaction of the students?*

To answer this question, hypotheses were generated to test the result from the question:

H1: “There is a significant relationship between campus services and students’ satisfaction”

H2: “There is a significant relationship between technology and students’ satisfaction”

H3: “There is a significant relationship between campus facilities and students’ satisfaction”

The data was analyzed used SPSS. All the research questions in this study were answer in chapter four. The summary of this research results are as follows:

1. *Determine if has a relationship between campus services, technology, and campus facilities and student satisfaction?*
2. *Which critical factors of variables that impact most to the satisfaction of the students?*

Table 5.1
Summary of coefficient results

Hypotheses	Beta	Sig.
H1: “There is a significant relationship between campus servicesand students’ satisfaction”	.415	.000
H2: “There is a significant relationship between technology and students’ satisfaction”	-.025	.677
H3: “There is a significant relationship between campus facilities and students’ satisfaction”	.037	.503

Based on the 5.1, it show that only the H1 significant value 0.000 is lower than alpha value 0.05 ($p < 0.05$), but H2 and H3 significant value is 0.677 and 0.503 is higher than alpha value 0.05 ($p > 0.05$). Only H1 is significant to student satisfaction, but H2 and H3 is not significant with students' satisfaction. So, it can be concluded that only H1 was accepted in this study, but H2 and H3 was rejected.

The campus services a significant relationship with students' satisfaction in University Utara Malaysia (UUM) maybe because of student satisfy with ability of the lecturer that has more experiences, knowledgeable and skillful in teaching ability. The higher education institutions send their academic staff for training aims of enhancing skills and knowledge in how to handle students and attract their attention to attend class and make student exciting in joining class activities. According to Sharma (2007) state teacher training is considered to be as a powerful means of professional development for teachers and convenient approach to teach education. The activities in the training like seminars, conferences and others organized for the lecturer in enhancing their teaching abilities and lecturer professional and also develop personal development as well as increase their knowledge. Moreover, the experiences and knowledgeable lecturer are more concern in student progress and make good relationship within the student also can make student feel motivate and comfortable, then enhance their satisfaction. Then, student also feel satisfy with administrative staff that has knowledgeable in their department, and treat them with positive working attitude that caring and fair whether they interact with local or international students. Administrative staffs serve students honest and fairly. As in campus, they are entertained only through the campus services, this factor is important

with the studies, so student ranked this factor better for their satisfaction because of the services provided by university are met or exceed their needs.

Although technology one of important tools for student to ease them in study and give a fast and vast in communication, but the result in this study not significant maybe because of wireless technology and/or information and communication technology (ICT) provided in university still lacking or not sufficient for students, which is not enough to fulfill their needs. For example, wireless technology provided in university are not enough in wireless connectivity, speed and retention of connectivity, or their coverage not support all area in university. So, students feel dissatisfied because they cannot access anytime and anywhere. For the ICT aspects, maybe students not really interest to make discussion through online, they more prefer for face-to-face discussion that makes them more understand and easy to memorized. Gunawardena (1995) and Warkentin (1997) state that “the face to face classroom provide a higher chance to deliver the favorable intimacy and immediacy to learners than the existing e-learning does to the presence of preverbal.” Teaching through online like using e-learning force student to be more effective in using tools, if learners do not take serious responsibility it can causes of dissatisfaction.

Lastly, for campus facilities the result is also not significant with student satisfaction maybe learning space, transportation facilities, and library facilities provided by university not proper as campus services. Development of education also changed expectation of students regarding the design of learning spaces in higher education institutions. For instance, changing in the social patterns, generational change, new and emerging technology and shift to a more learner-centred pedagogy. According to

Oblinger (2005) concluded that “the convergence of technology, pedagogy and space can lead to exciting models of campus interactions.” If all the learning spaces in university design and use not up-to-date equipment it can decrease student satisfaction. For transportation facilities, student needs transport around the campus to make them able to move from one place to another place. For example, bus services provided in university can ease student to attend the class, but if the availability of buses is not flexible it can decrease of student satisfaction. The equipment and surrounding in the bus also should be comfortable and clean to ensure that student feel comfortable when ride the bus. Then, in getting more additional reference or sources of study, students prefer to go library that place where they can gaining the knowledge. If the resources availability is not sufficient it can decrease student satisfaction and make them frustrated.

5.3 Limitations

In this study, the main limitation is scope of study is only focus on undergraduate students in University Utara Malaysia (UUM), which the result cannot assume as the result for all student satisfaction in UUM. Then, this study also focus on public university which is not focusing on attract students because in public university all the student being selected by Ministry of Higher Education (MOHE). So, they ways in how colleges or university handle their student distinguish between public and private university. Language also be one of the limitation because researcher, conducted this only using English language.

5.4 Conclusion and suggestions

Actually, in the area of measuring the students’ satisfaction, researcher found that it difficult and complex to measure or meet student’s satisfaction. But, this area was so

interesting and needs to add so improvement in further research. In this study, as researcher stated in summary of conclusion, only one independent variable has significant with dependent variable (student satisfaction), which is campus services.

For the future research, researcher suggests that the study can be conducted by adding other factors with campus services that can influence student satisfaction. Researcher may also try to add the factor like hostel facilities, sport facilities, and so on. According to Karlin (1979) state the “size hostel room as a factors that can influencing student satisfaction in higher education institution, because student tend to be unhappy if they should shared more than two person in one rooms.” In fact, student needs a comfortable and clean space for stay and study. For the sport facilities, Hasnain (2013) definethat student needs extracurricular activities such as the sport activities that can give them space in do recreation activities alone or in the group. Then, sport facilities also give goods experience for student , although main focus of any educational institution is on the basic purpose which is the studies and education of students, they also can evokes and polish the students extra skills and knowledge as well as their talent seeks the right direction. So, HEI should be concern an alert in providing adequate number of sport facilities in campus.

Then, the sampling area in this study only focusing in undergraduate student in UUM, to make it more variation, for the further study researcher can mix undergraduate student and postgraduate student as respondents. Lastly, researcher suggest that, for future studies researcher may changed the type in target populations from one sample to more sample that can give more variant in data collection and results because it can make comparison between the sample. The suggestions given by researcher actually based only the nature

of study, and of course the basic purpose of the universities is education and if they fulfill their responsibility, definitely students are satisfied to them.

REFERENCES

- Ababio, K. A., Aidoo, Eric. N. A., & Korankye, T. (2012). Modeling student's satisfaction with library services in a tertiary institutions: Evidence from Kumasi Polytechnic, *Information and Knowledge Management*, 2(6), 85-94.
- Abdulkafi, A. (2006). Teachers' attitudes toward information and communication technologies: The case of Syrian Efl teachers, *Journal for Computers and Education*, 47(4). Academic Affair Department University Utara Malaysia. Retrieved on December 10, 2014 from <http://hea.uum.edu.my/>.
- Adetunji, O. S. (2014). Students-centred methods of teaching architecture students theory of structures in Nigeria Universities, *International Journal of Education and Research*, 2(10), 437-444.
- Adnan, Y. M., and Aini, A. M. (2006). *Sharing the Initial Experience of Implementation of Problem Based Learning (PBL) at the Department of Estate Management, Faculty of Built Environment*, University of Malaya, Proceedings the Second Annual Built Environment Education Conference, BEECON 2006, London, 12-13th September 2006.

- Ageel, M., and John, W. (2012). Enhancing university teaching's information and communication technology usage by using virtual learning environment training course, *Proceeding of INTED Conference*.
- Ahmed, M., and Anwar, S. F. (2000). Bridging the Gap between Expectations of the BusinessCommunity and Delivery of the Business Schools in Bangladesh, *Journal of the Business Administration*, 26, 47-66.
- Aina, L. O. (2004). Library and information science text of Africa. Ibadan: Third World Information Services.
- AliReza, J., Aminul, I., and Ku, H. K. A. (2011). Service satisfaction: the case of a higher learning institution, *International Educational Studies*, 4(1), 182-192.
- Almalki, G., and Williams, N. (2012). A strategy to improve the usage of ICT in the Kingdom of Saudi Arabia primary school, *International Journal of Advanced Computer Science andApplication*, 3(10).
- Anderson, E. W., Fornell, C., and Rust, R.T. (1997). Customer satisfaction, productivity andprofitability: differences between goods and services, *Marketing Science*, 16(12), 129-145.

- Anderson, W. S., Baggett L. S., and Widener, S. K. (2007). The impact of service operation failures on customer satisfaction: Evidence on how failures and their sources affect what matters to customers, *Manufacturing & Service Operation Management*, 11, 52-69.
- Artino, A. R. (2007). Online military training: Using a social cognitive view of motivation and self-regulation to understand students' satisfaction, perceived learning, and choice, *Quarterly Review of Distance Education*, 8(3), 191-202.
- Asaduzzaman, Moyazaem, H., Mahabubur, R. (2013). Service quality and student satisfaction: a case study on private universities in Bangladesh, *International Journal of Economics and Finances Management Sciences*, 1(3), 128-135.
- Awais, M. B., Hee, H. C., & Veera, K. S. (2012). A guide for beginners: Data analysis using SPSS and AMOS, Malaysia: PEARSON.
- Ball, C. (1989). Towards an enterprising culture. Paris: OEDC/CERI.
- Balsas, C. J. L. (2006). Transportation and sustainable campus communities: Issues, examples, solution, *Journal of the American Planning Association*, 72(3), 369-370.

- Banning, J. H. (1990). The physical environment of the college classroom:
an instructional aid, *Campus Ecologist*, 11(4).
- Bansal, R. K., Gupta, V., and Malhotra, R. (2010). Performance Analysis of Wired and
Wireless LAN using soft Computing Technique – A review, 10(8), 67-17.
- Banwet, D. K., Datta, B. (2003). A study of the effect of perceived lecture quality
on post-lecture intentions, *Work Study*, 52(5).
- Bernhard, A. (2012). Quality assurance in an international higher education area: a case
study approach and comparative analysis. Germany: Springer Fachmedien.
- Berry, L. L., (1995). Relationship Marketing of Services-Growing Interest, Emerging
Perspectives, *Journal of The Academy Of Marketing Science*, 23(4), 236-245.
- Borden, V. M. (1995). Segmenting student markets with a student satisfaction and
priorities survey, *Research in Higher Education*, 36(1), 73-88.
- Brenders, D., Hope, P., and Ninnan, A. (1999). A systematic student-centered study of
University service, *Research in Higher Education*, 40, 665-685.
- Brewer, P. and Carnes, L. (2008). The perceived impact of physical facilities on the
student learning environment, *Business Education Digest*.

- Cadotte, E. R., and Turgeon, N. (1988). Dissatisfiers and satisfiers: suggestions for consumer complaints and compliments, *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 1, 74-79.
- Carlzon, J. (1989). *Moment of truth*, Harper Collins, New York, NY.
- Chandrasekar, K., & Murugathas, K. (2012). An assessment of user satisfaction on library services: a case study of undergraduate biology at the University of Jaffna, *Journal of the University Librarians' Association of Sri Lanka*, 16(1), 34-45.
- Chase, R. B. (1978). Where does the customer fit in a service operation?, *Harvard Business Review*, 56(6), 137-142.
- Coakes, S. J. (2013). *SPSS version 20.0 for windows: Analysis without anguish*, China: WILEY.
- Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences (3rd Ed)*, Mahwah, NJ: Lawrence Erlbaum Associates.
- Collins, A., and Halversonm R. (2009). *Rethinking education in the age of technology: The Digital Revolution and Schooling in America*. New York: Teachers College Press.

- Corts, D. P., Lounsbury, J. W., Saudargas, R. A., and Tatum, H. E. (2000). Assessing Undergraduate Satisfaction With An Academic Department: A Method and Case Study, *College Student Journal*, 34 (3), 399-410.
- Cuseo, J. (2003). Academic advisement and student retention empirical connections and Systematic interventions. Retrieved December 10, 2014 from http://www.nc-access.info/Advisement_Retention_Cuseo.pdf.
- Cuthbert, P. F. (1996). Managing service quality in HE: is SEVQUAL the answer? Part two, *Managing Service Quality*, 6(3), 31-35.
- Daisy, S. (2006). Measuring user satisfaction: a case study at the PDGM branch library at Peradeniya, *Journal of the University Librarians' Association*, 10, 40-53.
- Dale, B. G. (2003). *Managing Quality*. 4th Ed. Blackwell Publishing, Oxford.
- Davis, B. (1993). *Tools of teaching*. San Francisco: Jossey-Bass.
- Department of Statistic Malaysia. (2014). Principal of labor force Malaysia, October 2014. Retrieved on December 16, 2014 from <http://www.statistics.gov.my>.
- DeShields, O. W., Kara J. A., and Kaynak, E. (2005). Determinants of business students' satisfaction and retention in higher education: applying Herzberg's two factor theory, *International Journal of Educational Management*, 19(2), 128-139.

Disney, J. (1998). Competing through quality in transport services, *Managing Service Quality: An International Journal*, 8(2), 112-118.

Doris, U., Bolliger, & Oksana, W. (2009). Factor influencing faculty satisfaction with online teaching and learning in higher education, *Distance Education*, 30(1), 103-116.

Douglas, J., Douglas, A., and Barnes, B. (2006). Measuring student satisfaction at a UK University, *Quality Assurance in Education*, 14(3), 251-267.

Elliot, K. M., & Shin, D. (2002). Student satisfaction: an alternative approach to accessing this important concept, *Journal of Higher Education Policy & Management*, 24(2), 197-209.

Evans, J. R., & Collier, D. A. (2007). *Operation Management: An integrated goods and services approach*, Singapore: SOUTH-WESTERN.

Eyck, R., Tews, M., & Ballester, J. M. (2009). Improved Medical Student Satisfaction and Test Performance With a Simulation-Based Emergency Medicine Curriculum: A Randomized Controlled Trial, Paper presented at the ACEP 2008 *Research Forum*, October 2008, Chicago, IL.

- Fahad, N. A. (2012). Effectiveness of using information technology in higher education in Saudi Arabia, *Procedia Social and Behavioral Sciences* 46, 1268-1278.
- Farahiza, Z. A. (2010). Blended learning in higher education institution in Malaysia, *Proceedings of Regional Conference on Knowledge Integration in ICT*, 454-466.
- Fauzia, K., & Mahek, A. (2012). Student satisfaction with campus facilities, *Elixir Social Science*, 52, 11412-11416.
- Firdaus, A. (2005). The development of HEdPERF: a new measuring instrument of services quality of higher education sector. Paper presented at the Third Annual Discourse Power Resistance Conference: *Global Issues Local Solutions*, 5-7.
- Firdaus, A. (2006). Measuring service quality in higher education: HEdPERF versus SERVPERF, *Marketing Intelligence & Planning*, 24(1), 31-47.
- Galloway, L. (1998). Quality perceptions of internal and external customers: a case study in educational administration, *TQM Magazine*, 10, 20-26.
- Garver, M. S. (2009). A maximum difference scaling application for customer satisfaction researchers, *International Journal of Market Research*, 5(4), 481-500.

Giese, J. L., & Cote, J. A. (2000). Defining consumer satisfaction, *Academy of Marketing Science Review*.

Gosiff, P. (2009). Service system and requisite variety, Naples Forum on Service: SDL, ServiceScience, and Network Theory, 1-13.

Greenstein, D., & Healy, L. (2002). National survey documentation of internet use on libraries, *CLIR Issues*, 27, 4-12.

Greenwood, G. (2003). Benchmarking a Wireless Network, Master Thesis, Jacksonville State University. Retrieved on December 10, 2014 from <http://mcis.jsu.edu/studio/LiteratureReview.doc>.

Griffin, T. (1990). The physical environment of the college classroom and its affect on students, *Campus Ecologist*, 8(1).

Gronroos, C. (1989). Defining marketing: A market-oriented approach, *European Journal of Marketing*, 23(1), 52-60.

Gruber, T., Fub, S., Voss, R., and Glaser-Zikuda, M. (2010). Examining student satisfaction with higher education services: Using a new measurement tool, *International Journal of Public Sector Management*, 23(2), 105-123.

- Guolla, M. (1999). Assessing the teaching quality to student satisfaction relationship: applied customer satisfaction research in the classroom, *Journal of Marketing Theory and Practice*, 7(3), 87-96.
- Gunawardena, G. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences, *International Journal of Educational Telecommunication*, 1(2), 147-166.
- Hasnain, M. (2013). Measuring student satisfaction in public and private Universities in Pakistan, *Global Journal of Management and Business Research Interdisciplinary*, 13(3), 5-16.
- Helfert, G., Ritter, T., & Walter, A. (2002). Redefining market orientation from a relationship perspective: Theoretical consideration and empirical results, *European Journal of Marketing*, 36(9/10), 1119-1139.
- Hill, F. M. (1995). Managing service quality in higher education: the role of student as primary consumer, *Quality Assurance in Education*, 3, 10-21.
- Hill, M. C., and Epps, K. K. (2010). The impact of physical classroom environment on student satisfaction and student evaluation of teaching in the university environment, *Academy of Educational Leadership Journal*, 14(4), 65-79.

- Holley, R. P., & Powell R. R. (2004). Student satisfaction with electronic library resources at Wayne State University, *Journal of Access Services*, 2(1), 41-62.
- Holmes, B., and Gardner, J. E-learning : Concepts and practice. Retrieved on December 10, 2014 from blog.files.wordpress.com/2013/02/e_learning_concepts-chap2.pdf.
- Jamelske, E. (2009). Measuring the impact of a university first-year experiences program on student GPA and retention, *Higher Education*, 57(3), 373-391.
- Johns, N. (1999). What is think call service?, *European Journal of Marketing*, 33(9/10), 958-974.
- Joppe, M. (2000). The research process. Retrieved December 10, 2014 from <http://www.ryerson.ca/~mjoppe/rp.htm>.
- Jubb, M., and Green, R. (2007). Researchers' use of Academic Libraries and their Services. Retrieved December 10, 2014 from <http://www.rin.ac.uk/system/files/.../Researchers-libraries-services-report.pdf>.
- Kaminski, K., Switzer, J., and Gloeckner, G. (2009). Workforce readiness: A study of university students' fluency with information technology, *Computers and Education*, 53, 228-233.

- Karlin, R. A., Rosen, L.S., & Epstein, Y. M. (1979). Three into two doesn't go: A follow-up on the effects of overcrowded dormitory rooms, *Personality and Social Psychology Bulletin*, 5(3), 391-395.
- Kellogg, D. L. and Nie, W. (1995). A framework for strategic service management, *Journal of Operations Management*, 13(4), 323-337.
- Kim, W. (2007). Towards a definition and methodology for blended learning
- Koprowski, G. J. (2006). Third generation wireless technology generates massive global growth, *TechNew World*. Retrieved on December 15, 2014 from <http://www.technewsworld.com/story/51493.html>.
- Kostakis, A. P. (2009). Measuring customer satisfaction in public transportation: An Empirical study based in urban buses in the city of Larissa (Greece) – The MUSA Methodology, 260-275.
- Kosto, J. A. (2010). Assessment of library use by the lecturers of college of Education Akwanga, *The Information Manager*, 10(1&2), 48-54.
- Kotler, P., Armstrong, G., Ang, S.H., Leong, S. M., Tan, C. T., & Hon-Ming, O.Y. (2009). *Principle of marketing: A global perspective*, Singapore: PEARSON.

Kotler, P., and Fox, K. F. A. (1995). Strategic marketing for educational institutions (2nd ed.), Englewood Cliffs, NJ: Prentice-Hall

Kotler, P. and Keller, K. L. (2009). *Marketing management* (13thed). New Jersey. Pearson Education Inc, Upper Saddle River.

Kotler, P., Keller, K. L., Ang, S. H., Leong, S. M., & Tan, C. T. (2012). *Marketing Management: An Asian Perspective* (6th ed), Singapore: PEARSON.

Kroenke, D. M. (2013). *Using MIS* (5thed), England: PEARSON.

Kuo, Y. C., Walker, A., Belland, B. R., & Schroder, K. E.E. (2013). A predictive study of student satisfaction in online education programs, *The International Review of Research in Open and Distance Learning*, 14(1), 17-39.

Kuuskorpi, K., and Gonzales, N. C. (2011). The future of the physical learning environment: School facilities that support user. Retrieved on December 10, 2014 from <http://www.oecd.org/edu/innovation-education/centreforeffectivelearningenvironmentscele/49167890.pdf>.

LeBlanc, G., and Nguyen, N. (1997). Searching for excellence in business education: an exploratory study of customer impressions of service quality. *International Journal of Educational Management*, 11(2), 72-79.

Library University Utara Malaysia (UUM).Library facilities. Retrieved on December 15,

2014 from

<http://cmslib.uum.edu.my/new/index.php/en/all-about-library/library-facilities>.

Lindvall, M., & Russ, I. (2003). Knowledge management for software organization,

Managing Software Engineering Knowledge.

Long, C. S., Zaiton, I., and Kowang, T. O. (2013). An analysis on the relationship

Betweenlecturers' competencies and student satisfaction, *International*

Education Studies, 7(1),37-46.

Lovelock, C. H. (1983).Classifying services to gains strategic marketing insights, *Journal*

of Marketing, 47(3), 9-20.

Lovelock, C. H., &Gummesson, E. (2004). Whither services marketing?: In search of a

newparadigm and fresh perspective, *Journal of Service Research*, 7(1), 20-3,

20-41.

Lovelock, C. H, & Wright, L. (1999).Principles of Services Management and Marketing.

London: Prentice Hall.

- Mamus, M. Z., and Das, S. (1999). Total quality management for Non-Government Universities of Bangladesh, *Proceedings of Annual Convention of Bangladesh Society for Total Quality Management in Association with Department of Industrial and Production Engineering, BUET, December 3-4, 23-29.*
- Marinakou, E. (2014). An investigation of Factors That Contribute to Student Satisfaction From Online Courses: An Example of an Online Accounting Course, *US-China Education Review*, 4(8), 536-547.
- Marmolejo, F. Gonzales, R., Gersberg, N., Nenonen, S., and Calvo-Sotelo, P. C. (2007). Higher education facilities: issues and trends, *PEB Exchange, Programme on Educational Building*, 2007/01, OECD Publishing.
- Mason, J. C. (1992). Business schools: striving to meet customer demand, *Management Review*, 81(9), 10-14.
- McRoy, L., and Ginns, P. (2009). Leading change in higher education, *Educational Management Administration & Leadership*, 37(5), 687-704.
- Michael, S. O. (1997). American higher education system: consumerism versus professorialism, *The International Journal of Educational Management*, 11(3), 117.

- Mohamad, I. R., Asliza, Y., Wan, N. S., Wan, E. J., & Adi, H. T. (2014). Factors influencing unemployment among graduates in Malaysia – An overview, *Journal of Economics and Sustainable Development*, 5(11), 168-173.
- Mohr, L. R., and Bitner, M. J. (1995). The role of employee effort in satisfaction with servicetransactions, *Journal of Business research*, 32(2), 239-252.
- Moore, M. G., & Kearsley, G. (1996). Distance education: A systems view. New York, NY: Wardsworth.
- Muhammed, E. M., Rizwan Q. D., & Ali, U. (2010). The impact of service quality on student's satisfaction in higher education institute of Punjab, *Journal of Management Research*, 2(2), 1-11.
- Munawar, K. M., Ahmed, I., and Musarrat, N. M. (2011). Students' perspective of servicequality in Higher Learning Institution: An evidence based approach, *International Journal of Business and Social Science*, 2(11), 159-160.
- Nauman, A., Ali, M., Imran, S. C., & Muhammad, I. (2011). A study on students' satisfaction in Pakistani Universities: The case of Bahauddin Zakariya University, Pakistan, *Asian Social Science*, 7(7), 209-219.

- Narasimhan, K. (2001). Improving the climate of teaching sessions: the use of evaluations by students and instructors, *Quality in Higher Education*, 7(3), 179-190.
- Neumann, F. (1994). Course work characteristics and students' satisfaction with instruction, *Journal of Instructional Psychology*, 21(1), 14-24.
- Nurita, Shaharudin & Ainon. (2004). *Perceived employability skills of graduating students Implications for SMEs*.
- Nwalo, K. I. N. (2003). *Fundamentals of library practice: A manual on library routines*. Ibadan: StirlingHorden Publishers.
- Nyakudya, M. N. (2012). Wireless technology diffusion within higher education institutions: Determining the levels of student satisfaction, *International Journal of Engineering and Management Sciences*, 3(1), 13-23.
- Oblinger, D. (2005). Leading the transition from classrooms to learning spaces, *Educause Quarterly*, 1, 14-18.
- Oldfield, B. M., & Baron, S. (2000). Student perceptions of services quality in a UK University business and management faculty, *Quality Assurance in Education*, 8(2), 85-95.

- Oliver, R., and Desarbo, W. S. (1989). Processing of the satisfaction response in a suggested framework and research proposition, *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2, 1-16.
- Ortega, M. (2000). Computers in education: The near future. Boston, MA: Kluwer Academic Publishers.
- Owlia, M. S. and Aspinwall, E. M. (1997). TQM in higher education – a review, *International Journal of Quality & Reliability Management*, 14(5), 527-543.
- Palacio, A. B., Meneses, G.D., and Perez, P. J. P. (2002). The configuration of the university image and its relationship with the satisfaction of students, *Journal of Educational Administration*, 40(5), 486-505.
- Palmer, A. (2011). Principles of services marketing (6th ed.). Maidenhead: McGraw-Hill.
- Parsad, B., & Lewis, L. (2008). Distance education at degree-granting postsecondary institutions: 2006-07 (NCES 2009-004). Washington, DC: U.S. Department of Education, National Center for Education Statistics, Institute of Education Sciences.

Patterson, P. G., and Johnson, L. W. (1993). Disconfirmation of expectations and the model of service quality: An integrated paradigm, *Journal of Satisfaction, Dissatisfaction, and Complaining Behavior*, 6, 90-99.

Perkins, D. (2005). The case for a cooperative studio classroom: Teaching Petrology in a Different Way, *Journal of Geoscience Education*, 53(1), 101-109.

Petry, M. (1996). Marketing, 2000: myth or reality? An analysis of the evolution of modern marketing and of the latest developments in theoretical and practical marketing both in business and in European MBA programmes: a functional and terminological study, Doctoral thesis, Vienna University of Economics and Business Administration.

Pillai, S. (2009). University Industry Partnership – ASAIHL 2009, University of Kelaniya, Sri Lanka.

Ponsignon, F. Service delivery system: a business process perspective. Retrieved on December 10, 2014 from <http://www.poms.org/conferences/cso2007/talks/44.pdf>.

Popoola, S. O. (2001). Faculty awareness about information products and services in Nigerian Universities, *Gateway Library Journal*, 4(1&2), 1-10.

Porturak, M. (2014). Private universities service quality and students satisfaction, *Global Business and Economics Research Journal*, 3(2), 33-49.

Puzziferro, M. (2008). Online technologies self efficacy and self-regulated learning as predictors of final grade and satisfaction in college-level online courses, *American Journal of Distance Education*, 22(2), 72-89.

Reid, S. (2002). The integration of information and communication technology into classroom teaching, *Alberta Journal of Educational Research*, 48(1), 30-46.

Report to the European commission on: Improving the quality of teaching and learning in Europe's higher education institutions. (2013). Retrieved on December 10, 2014 from www.c.europa.eu/education/library/reports/modernisation_en.pdf.

Rhema, A., Miliszewska, I., & Sztendur, E. M. (2013). Attitudes towards e-learning and satisfaction with technology among Engineering Students and Instructors in Libya, *Proceedings of Informing Science & IT Education Conference (InSITE)*, 158-171.

Richards, J. C. (2006). *Communicative language teaching today* (1st ed.). Singapore: University Press.

Riha, C. (2006). Growth of wireless technology in healthcare institutions, *Biomedical InstrumentTechnology*, 43-45.

Rodie, A. R., & Klein, S. S. (2000). Customer participation in services production and delivery. In T. A. Swartz & D. Iacobucci (Eds.), *Handbook of service marketing and management*, 111-126. Thousand Oaks, CA: Sage Publications, Inc.

Rogers, G. and Edwards, J. (2003). Introduction to wireless technology, Upper Saddle River, NJ:Prentice Hall.

Roscoe, J. T. (1975). Fundamental research statistics for the behavioral sciences, 2nded. New York: Holt, Rinehart and Winston.

Rossett, A., Douglass, F., & Frazee, R. V. (2003). Strategies for building blended learning. Learning Circuits.

Sasser, E. W., Olsen, P. R., and Wyckoff, D. D. (1978). Management of service operations: Textcases, and readings. Allyn& Bacon: Boston, MA.

Scout, S. V. (1999). The academic as service provider: as the customer “always right”?, *Journal of Higher Education Policy and Management*, 21(2), 193-202.

- Seaberry, B. J. (2008). A case study of student and faculty satisfaction with online courses at a community college (Unpublished doctoral dissertation, University of California, AAT3329585).
- Sekaran, U., & Bougie, R. (2013). *Research Methods for Business: A skill-building approach* (6th ed), Italy: WILEY.
- Selnes, F. (1993). An examination of the effect of product performance on brand reputation, satisfaction, and loyalty, *European Journal of Marketing*, 27(9), 19-35
- Shank, M. D., Walker, M., and Hayes, T. (1995). Understanding professional service expectations: do we know what our students expect in a quality education?, *Journal of Professional Services Marketing*, 13(1), 71-83.
- Shea, P. J., Pickett, A. M., and Pelz, W. E. (2003). A follow-up investigation of “teaching presence” in the SUNY learning network, *Journal of Asynchronous Learning Networks*, 7(2), 61-80.
- Shin, N, Jonassenm D., and Mcgee, S. (2003). Predictors of well-structured and ill-structured problem solving in an astronomy simulation, *Journal of Research in Science Teaching*, 40(1), 6-33.

Shostack, G. L. (1982). How to design a service, *European Journal of Marketing*, 16(1), 49-63.

Shostack, G. L. (1987). Service positioning through structural change, *Journal of Marketing*, 51(1).

Silvestro, R., Fitzgerald, L., Johnston, R., and Voss, C. (1992). Towards a classification of service processes, *International Journal of Service Industry Management*, 3(3), 62-75.

Singh, M. R. P. Concept and nature of service. Retrieved on December 10, 2014 from <http://www.ddegjust.ac.in/studymaterial/mba/mm-411.pdf>.

Sivathaasan, N. (2013). Satisfactory level of undergraduate students with academic library: A case study of faculty of Management Studies and Commerce, University of Jaffna, Sri Lanka, *Global Journal of Management and Business Research Administration and Management*, 13(5), 63-69.

Slack, N., Lewis, M., and Bates, H. (2004). The two worlds of operations management Research and practice: Can they meet, should they meet?, *International Journal of Operation & Production Management*, 24(4), 372-387.

- Soria, K. M., Fransen, J., & Nackerud, S. N. (2013). Library use and undergraduate outcomes: New evidence for students' retention and academic success, *Libraries and the Academy*, 13(2), 147-164.
- Stukalina, Y. (2012). Identifying predictors of students satisfaction and student motivation in the framework of assuring quality in the delivery of higher education services, *Business Management and Education*, 12(1), 127-132.
- Swan, K., Shea, P., Fredericksen, E., Pickett, A., Pelz, W., and Maher, G. (2000). Building knowledge building communities: Consistency, contact, and communication in the virtual classroom, *Journal of Educational Computing Research*, 23(4), 389-413.
- Swan, K. (2001). Building learning communities in online courses: the important of interaction, *Distance Education*, 2(1), 25-29.
- Tang, S. F., and Hussin, S. (2011). Quality in Higher Education: A variety of stakeholder perspectives, *International Journal of Social Science and Humanities*, 1(2).
- Tax, S. S., and Stuart, I. (1997). Designing and implementing new services: The challenges of integrating service systems, *Journal of Retailing*, 73(1), 105-134.

- Taylor, B. D, Miller, D., Iseki, H., & Fink, C. (2008). Nature and/or nurture? Analyzing the determinants of transit ridership across US urbanized areas, *Transportation Research Part A*, Article in Press, 1-18.
- Tessema, M. T., Ready, K., & Yu, W. C. W. (2012). Factors Affecting College Students' Satisfaction with Major Curriculum: Evidence from Nine Years of Data, *International Journal of Humanities and Social Science*, 2(2), 34-44.
- Theall, M., and Franklin. (2001). *Looking for bias in all the wrong places – A search for truth or a witch hunt in student ratings of instruction?* In the student ratings debate: Are they valid? How can we best use them? Theall, P., Abrami, L., and Lisa, M. (Eds) *New Directions in Educational research*, no. 109. San Francisco: Jossey-Bass.
- Thomas, E. C. (2005). No strings attached: The benefits of choosing a wireless LAN for today's for today's University, *Journal of Applied Business Research*, 20(4).
- Tonks, D., and Farr, M. (1995). Market segments for higher education: using geodemographics, *Marketing Intelligence & Planning*, 13(4), 24-37.
- Tyrinopoulos, Y., and Antoniou, C. (2008). Public transit user satisfaction: Variability and policy implications, *Transport Policy*, 15(4), 260-272.

- Wan, N. M., Mohamad, R. M. D., and Kairul, A. M. A. (2014). Investigating students' satisfaction level on implicit services of Malaysia Public Higher Education Institutions, *Gading Business and Management Journal*, 18(1), 41-59.
- Wang, Q. Y., Cheung W.S. (2008). Student-facilitators' roles of moderation online discussions. *British Journal of Educational Technology*, 39(5), 859-874.
- Wall, G., and McDonald, M. (2007). Improving bus service quality and information in Winchester, *Transport Policy*, 14(2), 165-179.
- Warkentin, M. E., Sayeed, L., and Hightower, R. (1997). Virtual teams versus face-to-face teams: An exploratory study of a Web-based conference system, *Decision Science* 28, (4), 975-996.
- Watson, S. (2003). Closing the feedback loop: ensuring effective action from student feedback, *Tertiary Education and management*, 9, 145-157.
- Weaver, T. (1976). What is good of higher education?, *Higher Education Review*, 8, 3-14.
- Wentzel, P., Lammeren, V., Molendijk, M., DeBruin, S., & wagtendonk, A. (2005). Using Mobile Technology to Enhance Students Educational Experiences, Case study from EDUCAUSE Center for Applied Research.

- Wei, S. L. (2011). Proceeding of the International Conference on Social Science, Economics, and Art 201. Hotel Equatorial Bangi-Putrajaya, Malaysia, 14-15 January 2011 ISBN978-983-42366-5-6.
- Wiers-Jenssen, J., Stensaker, B., & Groggaard, J. B. (2002). Student satisfaction: towards an empirical deconstruction of the concept, *Quality in Higher Education*, 8(2), 183-195.
- Witowaki, L. (2008). The relationship between instructional delivery methods and Students learning preferences: What contributes to students' satisfaction in an online learning environment? Ph.D Dissertation, Cappel University.
- Yang, Y., & Cornelius, L. F. (2004). Student's perceptions towards the quality of online education: A qualitative approach. *Paper presented at the Association for Education Communications and Technology 27th Conference*, USA.
- Yasmin, A., Nasir, D., Anuar, A., and Muhammad, N. R. (2012). Importance of soft skills for graduates in the Real Estate Programmes in Malaysia, *Journal of Surveying & Property*, 3(2), 1-13.

Yousef, M., and Hamideh, Z. (2013). Student satisfaction at Osmania University,

International Journal of Advancements in Research & Technology, 2(6),

233-240.

Zahayu, M. Y., Masnita, M., Pei, L. P., & Tian, H. T. (2014). Factors affecting students'

satisfaction towards bus services in University, *Research Journal of Applied*

Sciences, Engineering and Technology, 8(7), 817-822.

Zeithaml, V. A. (1988). Consumer perception of price, quality and value: a means-end

model and synthesis of evidence, *Journal of Marketing*, 52(3), 2-22.

Zeithaml, V. A., Parasurman, A., and Berry, L. L. (1985). Problems and strategies in

service marketing, *Journal of Marketing*, 49(2), 33-36.

Zeithaml, V. A., Berry, L. L., & Parasurman, A. (1993). The nature and determinants of

customer expectations of service, *Journal of Academy of Marketing Science*,

21(1), 1-12.

Zeithaml, V. A., Gremler, D. D., & Bitner, M. J. (2009). Services marketing: integrating

customer focus across the firm (5th ed.). London: McGraw-Hill.

Zeng, W. Y., and Perris, K. (2004). Researching the efficacy of online learning:

A collaborative effort amongst scholars in Asian open universities, *Open*

Learning, 193, 247-264.