

**FACTORS INFLUENCING POSTGRADUATE  
STUDENT SATISFACTION TOWARDS NON-  
ACADEMIC STAFF BEHAVIOUR IN UUM**

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**By**

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**Dissertation Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
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## **ABSTRACT**

This research examines the influence of responsiveness, reliability and assurance among non-academic staff behaviour in UUM on the outcomes of postgraduate student satisfaction. Few empirical studies have addressed the students satisfaction in UUM but most of the studies thus far only talks about student's satisfaction in general (regardless of undergraduate and postgraduate), thus this research looks into postgraduate student satisfaction (Dependent Variable) and aspects on Non-Academic Staff behaviour in specific. A total of 400 questionnaires was distributed to Postgraduate students in UUM, Sintok. Multiple regressions were applied on 271 completed questionnaires to the hypotheses listed in this research. The study has demonstrated that there exist a connection between non-academic staff behaviour and the level of satisfaction among the postgraduate students. The findings offer support for the value of right behaviour to achieve competitive advantage via upgrading of UUM's current service level.

**Keywords:** Postgraduate student satisfaction, responsiveness, reliability, assurance.

## **ABSTRAK**

Penyelidikan ini mengkaji pengaruh responsif, kebolehpercayaan dan jaminan antara tingkah laku kakitangan bukan akademik di UUM kepada hasil kepuasan pelajar pasca siswazah. Beberapa kajian empirikal telah dilakukan terhadap kepuasan pelajar di UUM tetapi kebanyakan kajian hanya berbincang mengenai kepuasan pelajar secara umum (tanpa mengira pelajar ijazah sarjana muda dan pascasiswazah). Kajian ini berbincang mengenai kepuasan pelajar pascasiswazah (sebagai Pembolehubah Bersandar) terhadap tingkah laku staff bukan akademik. Sebanyak 400 soal selidik telah diedarkan kepada pelajar pascasiswazah di UUM, Sintok. Analisis Regresi Berganda digunakan untuk mengkaji hipotesis terhadap 271 soal selidik. Kajian ini menunjukkan bahawa terdapat hubungan antara tingkah laku staff bukan akademik dan tahap kepuasan pelajar pascasiswazah. Hasil kajian membantu untuk meningkatkan nilai tingkah laku demi mencapai kelebihan daya saing melalui peningkatan tahap perkhidmatan semasa UUM.

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## **DEDICATION**

To my parents M. Sivalingam and K. Rethnambal and my sisters.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 About UUM**

Ministry of Education Malaysia announced the establishment of the sixth public university of the country in August 1983, that is Universiti Utara, Malaysia (UUM) in Kedah. UUM is one of Malaysian public universities which specialized in management education established on 16<sup>th</sup> February 1984.

The temporary UUM office was formally opened on 15<sup>th</sup> February 1984 in Jitra. After four months when the first phase of the project was completed, UUM moved to its temporary campus at Darul Aman Campus in Jitra. Darul Aman Campus located at 62-acre tract of land in Bandar Darulaman and 18 km north of Alor Setar and 4.8 km from Jitra.

15<sup>th</sup>, September 1990, a permanent campus was established on an area of 1,061 hectares in Sintok which situated about 48 km north of Alor Setar and 10 km east of Changlun, a small town along the North-South Highway, near the Malaysia-Thai border. Sintok campus is located in a previous tin mining area; it is entrenched in the lush tropical jungle valley, embraced by the blue hills, and watered by two rivers flowing through the centre of the campus. Sintok Campus was formally opened on 17<sup>th</sup> February 2004 by his Royal Highness and Chancellor Sultan Abdul Halim Mu'adzam Shah with the investment MYR580 million.



Besides, UUM has been built in an open campus where visitors are allowed to visit and use the facilities. An area surrounding 107 hectares of forest has been improved into diverse services; such as to entice tourists to the northern region, and it also fulfills the recreational needs of the members of the school community.

On January 2008, UUM planned to hoist flag in the international academic arena and to increase the number of postgraduate students, to achieve this, the university academic system was restructured. Additionally, the university prepared to be global in practice as contained in its establishment objectives. In this rearrangement exercise, 13 faculties were merged and streamed into three (3) main Academic Colleges.

In addition, this restructuring progress parallels with the authoritative enunciated in the statements of both the Prime Minister and the Minister of Higher Education that highlighted the need to raise the number of postgraduate students in the country by 2023. This primary strategy is entrenched in The National Higher Education Strategic Plan 2011-2015.

## **1.2 Background of the Study**

Postgraduate student satisfaction towards non-academic staff behaviour in UUM examined in this research. The attitude needs to be a high degree of compatibility between behaviour. Attitude presumed causation that related to the behaviour and attitudes people hold decide what they do in the initial research (Robbins & Judge, 2013). Behavioural elements can be described as a purpose to behave in a particular

way concerning someone or something. Behaviour is also defined as a response of a person or group to an act, nature, individual, or inducement. So, in organizations attitudes are essential for their behavioural element.

The education sector is one of the greatest essential sectors in the world economy. Sharabi (2013) and Centavo, Harked, Ibrahim, and Wang (2008) stated that postgraduate studies highly increase in the education market nowadays. Most countries are now moving their economies from manufacturing to services sector (Kunai, Khan, & Qurush, 2014). So, in the service sector the rivalry is now increasing within the industries. Currently, corporations are facing new challenges and the competitive business situation due to globalization.

Thus, as highlighted by Kundi et al., (2014), every institute needs to have exceptionally skilled, knowledgeable and experienced staffs that are capable of dealing with competitive business environment. The Higher Education Institution (HEI) is facing high competition in global education markets to increase the number of students. This is mainly due to the reduction of government funds to higher education institutions, and these forces the institution to find their own revenue to operate (Munteanu, Ceobanu, Boba<sup>l</sup>ca & Anton, 2010). Likewise, successful higher educational programs also depend on the contributions of effort, involvement, and most importantly on the administration service provided by non-academic staff.

Meanwhile, the origin of the administration service assessment was entrenched in the business community of early 1990s. An essential quality towards customer service raised with foreign rivalry and deregulation. Currently, service

quality is spreading from business to education sector. According to Ali and Mohamed (2014) and Calvo-Porrall, Le'vy-Mangin and Novo-Corti (2013) stated that many higher education institutions have been motivated and prompted by service quality both for administrative and teaching and service provided by staff.

However, customer satisfaction and loyalty are important to many businesses that recognized that their continued profitability and in turn resulted from the customer's perception of value received. Cubillo-Pinilla, Zuniga, Losantos, and Sanchez (2009) pointed that in today's competitive atmosphere, it is becoming more difficult for higher education to develop and maintain a competitive advantage based their business goal.

Furthermore, HEI need to search for new and creative approaches to attract, encourage and maintain good relationships with students to have a competitive edge in the future. Consequently, it is vital for higher education to monitor the quality of services and protect the interests of stakeholders, especially student through the realization of their actual needs and wants (Zeshan, 2010 and Al-alak, 2009). Abbasi, Malik, Chaudhry, and Imdadullah (2011) conducted a study that higher education focused on strategic issues such as delivering good customer service. It is essential because by doing so may create an excellent relationship with the customer and also help their future in the industry.

Malaysia is one of the most progressive and emerging countries in South East Asia acknowledges the challenges of globalization and internationalization of education. The Malaysian government realizes the essential need to involve

education services in the national economy sectors, thereby, pursuing to turn Malaysia into an international focus and centre of superiority in education (Rasli, Shekarchizadeh, & Iqbal, 2012).

Malaysia considered as a country with inexpensive education fees and cost of living, quality of postgraduate programs, and an excellent standard of living has made the international student interested in furthering their education in Malaysia, especially middle-class citizens of Iran and Iraq. Based on this, Malaysian Ministry of Higher Education succeeded to establish of the Malaysia Education Promotion Centre in North-African and Middle East countries by means of increasing the number of international students (Rasli et al., 2012).

Moreover, Rasli et al., (2012) mentioned that there has been a high growth in the number of international students continuing their higher education studies in Malaysian during the last decade. So, it is important to determine student satisfaction towards management services provided in higher education (Iro-Idoro, Ayodele, & Orija, 2014).

Apart from that, the SERVQUAL model proposed by Parasuraman, Zeithaml, and Berry (1988) used to measure postgraduate student satisfaction in this research. Two (2) SERVQUAL dimension used in the previous study by Yusop (2011) in UiTM Pahang campus was only focused on responsiveness and assurance. Besides that, the study was generic as all undergraduate and postgraduate students are the respondent of the study. In this current study, a new criteria as have been added on

which is reliability. Reliability is one of the critical success indicators in service quality satisfaction.

In addition, this study determined non-academic staff behaviour when dealing with students daily activities. This is because it will verify whether the service provided by non-academic staff will indicate student's satisfaction. Thus, as highlighted by Hanaysha, Abdullah, and Warokka (2011), the students can be motivated from both academic accomplishment and also administrative efficiency of their institution.

### **1.3 Problem Statement**

The study, which was conducted by Yusop (2011) on student satisfaction towards services provided in Universiti Technology MARA (UiTM) Pahang campus; such as facility unit, car park, security unit, wifi, toilet and staff was dilated many areas. Table 1.1, shows that frequency of complaints during semester July to November 2010 in (UiTM) Pahang Campus. From the table 1.1, it shows that the student highly complains on staff, which are fifteen complaints made in that period. So, it shows complaining about admin staff is still at dissatisfying level. In other words, HEI students are highly not satisfied with the administration service provided by non-academic staff. This leads to students highly move from UiTM to another HEI. Therefore, the present study seeks to protect the movement of international and local student in UUM to another HEI.

Table 1.1

*Frequency Of Complaints During Semester July – November 2010 In Universiti Teknologi Mara (Uitm) Pahang.*

		ADMINISTRATION					
TYPES OF COMPLAINTS		FACILITY UNIT	CAR PARK	SECURITY UNIT	WIFI	TOILET	STAFF
STUDENT (RESIDENT & NON RESIDENT)	FREQUENCY	-	1	1	4	-	3
					1		2
					4		3
							2
							3
							2
	TOTAL	-	1	1	10	-	15

Previous study also shows that, foreign postgraduate students from HEI have negative perceptions of education services provided (Shekarchizadeh, Rasli, & Hon-Tat, 2011). University's management is unable to meet their expectations regarding

the performance of education services. In addition, a negative value is indicated by international students.

Moreover, measuring service quality rendered by administrative staff persists to be a challenging and troublesome in higher education institutions. If the institutions fail to meet student expectations towards service quality, they will lose their future prospect. Zainuddin, Kahmis, Muhamad, and Mamat (2014) stated that, some higher education may not be able to recruit new student and maintain the existing students. This is because; nowadays the students select the best quality higher education that suits their expectations.

Furthermore, according to Angell, Heffernan, and Magic's (2008), education is one of the services and the postgraduate studies becoming increasingly competitive. At the same moment, the service quality of undergraduate studies has been widely measured, but service quality of postgraduate research has been neglected.

Besides, of the most powerful marketing strategy of HEI is through positive word of mouth and also service based which is relying on students' perception (Hanaysha et al., 2011). Alves and Raposo (2010) suggest that the student satisfaction influence positivism perceptions of service provided by the administration and the more prominent satisfied student would attract more students through word-of-mouth interactions.

It acknowledged that the services offered by administrative staff at the UUM give a high impact on student satisfaction. High-level management service occurs

when the customer perceives that the service provider exceeded those prospects. During this term, both (local and international) postgraduate student satisfaction has to be necessarily considered. An international student regarded as ambassadors to their country. If UUM provides excellent service, they will spread good remark about UUM to their country's executives and prospective students.

Rasli et al. (2012) highlighted that Malaysia has been successful in raising access to higher education and significant emphasis on quality assurance of higher learning, especially with regards to postgraduate studies. Likewise, in today's competitive educational environment, students have many options available. Ilias, Rahman, and Razak (2008) stated that institutions should retain and foster stronger relationships with students besides searching the most efficient and creative ways to entice the student in the future. This is because, the education has not only become a primary element of the industry, but it is also an investment in the national economy in the competitive world (Kunai et al., 2014)

Meanwhile, the management services provided by UUM should meet student's expectation due to many international students from various countries around the world, especially from African countries, and the Middle East are pursuing postgraduate studies in UUM. They also have the right to practice and participate in their religion, culture, belief, taste, needs and background. That has an influence on student satisfaction regarding management services.

In addition, management services are an essential component of every university. As the interest in pursuing postgraduate programs are on a rising trend,



universities must portrait good quality, not only in academic but also the service provided. UUM should compete with other HEI to acquire student numbers and sustain in business.

#### **1.4 Research Question**

This study intends to determine postgraduate student satisfaction towards non-academic staff behaviour in UUM; thus, the following research questions are formed to guide the study:

- a) Is there any significant relationship between responsiveness and postgraduate student satisfaction?
- b) Is there any significant relationship between reliability and postgraduate student satisfaction?
- c) Is there any significant relationship between assurance and postgraduate student satisfaction?

#### **1.5 Research Objectives**

In general, the objective of this research is to examine aspects of postgraduate student satisfaction towards non-academic staff behaviour in UUM. The specific objectives of this study are as follows:

- a) To examine the relationship between responsiveness and postgraduate student satisfaction.
- b) To examine the relationship between reliability and postgraduate satisfaction.

- c) To examine the relationship between assurance and postgraduate student satisfaction.

### **1.6 Significance of Study**

The findings of this study will add valuable information to the body of knowledge to sustain and improve postgraduate student satisfaction in UUM. This study will also help UUM to achieve excellent management education and move towards eminent management university. Administration service cannot separate from human factor. Administration service satisfaction resulted from emotions and feelings that were born as a student and getting assistance from administration staff.

The high service quality is considered to achieve if excellent service provided by non-academic staff and high student satisfaction. However, poor services rendered can reduce the popularity of the department or unit and can affect the image as well as the reputation of UUM in the long term. Overall, all these findings can help in the management get a clear picture of students' perception regarding services provided by the non-academic staff. The findings of this study are beneficial UUM to improve the quality of non-academic staff services.

### **1.7 Scope of the Study**

This study contributes in identifying postgraduate student satisfaction towards non-academic staff behaviour in UUM. Therefore, the researcher analyse students' satisfaction based on SERVQUAL model considering three (3) main criteria which

are responsiveness, reliability and assurance that suitable to measure non-academic staff behaviour. Respondents of this study are UUM postgraduate students both local and international.

### **1.8 Limitations of the Study**

The findings of this study were limited to full-time postgraduate students and active in Sintok Campus. Most of them marital status is single. When conducting research, some information is private and confidential and therefore cannot be exposed to investigators for example e-complaint made by a student regarding non-academic staff behaviour in UUM. In addition, the data for this study were collected using self-reported survey questionnaire.

### **1.9 Organization of the Study**

This study consists of five chapters. Chapter one follows on from the Introduction by illustrating about UUM, background of the study, problem statement, research question, research objectives, significance of the study, then the scope and the limitations of the study, organization of study, conclusion. Chapter two discusses the literature review that is critical reviews of literature and theories associated with the subject matter. Chapter three discusses methodology that describes the methods and techniques of collecting and analysis of data. Chapter four brings out the results and discussion. Chapter five pin-point the findings, conclusions, and prospects for further inquiry.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter presents a review of related literature from the previous studies in the area of service delivery and customer satisfaction. The chapter begins with discussion student as a customer or stakeholder, student satisfaction, non-academic staff behaviour, support staff and front-line staff, definition of service, service encounter, dimension of non-academic behaviour or service quality and total quality management (TQM) in higher education.

#### **2.2 Student as Customer or Stakeholder**

The idea of student as customers is not a new issue nowadays since previous researchers used the same term (Douglas, McClelland, & Davies, 2008). According to Qurush, Shaukat, and Hijazi (2010) and Trivellas&Dargenidou (2009) students are considered as a primary service recipient or customers. Sultan and Wong (2012) and Sumaedi, Bakti, and Metasari (2011) stated that in higher education institution's student are considered as central and essential service recipient.

Based on this, the Higher Education Funding Council for England (HEFCE) introduces a survey that enables several students to read themselves as customers and shoppers (Brown & Mazzarol, 2008). The higher education also views students as their primary customer and seek to maximize their satisfaction based on educational and administrative services provided (Rasli, Shekarchizadeh, & Iqbal, 2012).

Besides, there are many stakeholders of higher education ranging from internal to external stakeholders. However, students are clearly more conceptualized as stakeholders to every institution instead of academic or non-academic staff. Students are also considered as a bridge of the relationship between higher institutions and other stakeholders; such as parents, employers, society (Khan, Ahmed, & Nawaz, 2011).

In addition, satisfaction of other stakeholders depends on the satisfaction of students. This is because, in today's world students are being measured as the primary customers in higher education, and their needs have to be satisfied with the administration staff in every institution (Alaba & Olanrewaju, 2012; Yunus, Ishak, & Razak, 2010).

### **2.3 Student Satisfaction**

Satisfaction is one of the functions of relative level of expectation and perceives a performance (Ilias, Rahman, & Razak, 2008). In past studies, it mentions that student (customer) satisfaction which is strongly associated with service quality in higher education (Jiewantoa, Laurensb, & Nellohc, 2012).

Kotler et al. (2011) stated that, satisfaction is an individual's feeling of excitement that results from evaluating the performance of a product or service based on their expectations. Thus highlighted by Schiffman and Kanuk (2010), satisfaction is the concept of a broad explanation stating that the comparison between expectations and customer's perceptions. Omar, Nazri, Abu, and Omar (2009)

mentioned that the most effective and inexpensive organization's communication policy is satisfaction. If the customer satisfied with the service provided they share their positive experience with others.

Furthermore, Malik, Danish, and Usman (2010) highlighted that an intentional performance, which is a person's contentment considered as satisfaction. Student satisfaction impacts on student efforts towards their studies (Khan et al., 2011). Students will put more efforts towards their studies if they are highly satisfied with the service provided. Naik, Gantasala, and Prabhakar (2010) illustrated that if organization performed excellent service, the customers would tend to make good behaviour in the future and maintain high relationship.

However, the institutes should know the way to manipulate the perceived wait time if they cannot control the actual period of the waiting. In past studies, it mentions that customer satisfaction; increase by reducing actual waiting time and through improving customer waiting skill (Kunai et al., 2014). Higher education should heeded student satisfaction due to intensive competition among universities, internationalization spirit and higher expectation from the customer towards greater educational institution (Ling, Chai, & Piew 2010).

According to Ahmed, Nawaz, Ahmad, and Ahmad, Shaukat, and Usman (2010), student satisfaction necessary in order to get best from students. Quality of students will be higher if excellent satisfaction is achieved. UUM management is responsible for providing better administrative service in order to satisfy all

stakeholders especially students. Because, the number of student admission is increasing year over year, therefore, Malaysia universities compete with one another in order to attract local and international students (Sani, Osman, & Daud, 2014).

Besides, it is expected that, students will further their education in institutions where good services are provided by staff, especially administrative services. Customer loyalty achieved when customer satisfied with the service provided by the organization (Negricea, Edu, & Avram, 2014). Bodet (2008) pointed that attract new student is difficult compare with maintaining existing student in an institution. Satisfaction in education system is the most vital towards learning goals (Ahmed et al., 2010).

In addition, student satisfaction is essential to attract and maintain student in higher education (Dib & Alnazer, 2013). According to Malik, Danish, and Usman (2010), student satisfaction helps in developing their skills, self-confidence and knowledge.

#### **2.4 Non-Academic Staff Behaviour**

According to Oxford dictionary behaviour, is the manner of doing something for a particular purpose or conducts oneself towards others. Based on business dictionary, behaviour is a response of the person or group towards some act. Robbins et al., (2013) mentioned that behaviour is one of the elements in attitude that defines a purpose to behave in a specific way toward something or someone. Attitude is vital to a behavioural element in every organization.

Attitudes have a strong relationship to staff behaviour. Several service analyses found that, customer perceptions of service quality are purposes of service supplier attitudes and action. Mainly positive attitude is shown by sound of a person's voice, appearance, body language and communication skills in telephone.

In addition, job satisfaction as a “satisfaction mirror” reflects job satisfaction that leads to customer satisfaction. Job satisfaction has to do with an employee's attitude. Currently, more frequently that job satisfaction of the service staff is at customer satisfaction. This is because job satisfaction became the most important reason for staffs to develop good service. Perhaps the staff received some compensation from top management in a particular time, or they are inspired to execute as well as organizations with concern on their well being.

However, the ethic is thought to be part of behaviour that is every person that has an ethical will behave politely. An attitude and behaviour relationship will be stronger if view attitude as to something that have direct own experience (Robbins et al., 2013). Bahadori et al. (2011) mentioned that, staff should have good behaviour by having good communication skills. A higher education institution's quality also evaluated based on staff behaviour towards student (Sultan & Wong, 2012).

## **2.5 Support Staff and Front-Line Staff**

Supporting staff and front-line staff behaviour is vital for student to achieve excellent satisfaction in higher education. Gallup (2013) highlighted that seventy percent (70%) of Frontline staff failed to achieve their full potential at a job. Staffs primarily



support staff, and front-line staff should interact with students friendly and provide excellent service. This is because previous researches show that, students always complain about getting the right information from staff, i.e. such information is scarce and difficult to obtain.

From that survey, students continue to criticise information being provided by staff that is scarce and considered inadequate. Some information is given in an unfriendly manner and without customization. All these examples should avoid because it has a negative impact on the institutions or organization, as the case may be. To project a great image of staffs, they ought to behave following to the customer-oriented angle.

Moreover, other researchers found that customer satisfaction concentrate on the interactions between front-line staff and customers to be pleasant experiences particularly for the customers. To behave on such approach, high level management should empower them such as making a choice on their own or offer them chance to grant any comments or suggestions. So when they are authorized, they will be happy doing their task and this result will give the most effective service to the student.

In the study of Brown and Mazzarol (2008), there are some strong drivers that create student satisfaction specifically improvement of the image, the availability of improved hardware and human as customer service whereby at a similar time satisfied student will have a tendency to be loyal with a similar institutes. Such as

working with similar institutions in the future. This is in line with the ideal human ware whereby there are two elements specifically responsiveness and assurance.

Additionally, to make student satisfied with the service provided by staff, they must consciously uphold good principle of quality customer service, be it front-line contact staff concerned teaching or administration, or non-contact staff in administrative roles (Banwet & Datta, 2003). According to Sohail and Shaikh (2004) as cited in Douglas, Douglas and Barnes (2006), student evaluation of service quality is more on personal communication that is face to face interaction with staff regarding their problem.

## **2.6 Definition of Service**

According to Zainuddin et al. (2014) service quality is considered as one of important concepts by practitioners and top management during last two decades. Naik et al. (2010) argued that in higher education service, quality is positively influenced student satisfaction. Agbor (2011) stated that service quality is significantly linked to customer satisfaction.

Furthermore, service quality impact behavioural intention (Naik et al., 2010). Meaning, the service provided by staff depends on the person or customer that has different senses. Kayastha (2011) and Archambault (2008), service performance and student satisfaction have a significant relationship in higher institutions.

Besides, Angell et al., (2008) highlighted that the educational aspects of service quality consider as the most critical issue to postgraduate students. Previous studies mentioned that when students got a positive opinion on excellent services provided, it will be positively impacted the entire university image (Jiewanto et al., 2012). Shekarchizadeh et al., (2011) stated that service quality in higher education sector needs to be measured from both the internal and external views.

Andrews, Boyne, and Walker (2011) highlighted that support services provided by higher institutions significantly influence education sector. Sandmaung and Khang (2013); Iro-Idoro et al., (2014) stated that service closely related to all stakeholders who provide services in higher education institutes based on student perception. Moreover, service cannot be kept or moves, but service will be given once a student needs it. There are various acceptable quality services, and one of them is the quality of performance expounded to the attitude of the staff. Staff should know about customer perceptions based on service provided whether to evaluate product quality or service quality.

According to Archambault (2008) service quality play an important role in measuring performance before customer purchase service in universities. In other terms, quality once requested for services is customer-centric, though the vague nature of services indicates that the search for worldwide, meaning of quality and a declaration of law-like relationships has been ineffective.

However, the array of potential services and service features will embody a varied range of measures, as well as the institution's importance of teaching students well and administration service that evaluated student satisfaction. Further, higher institution has variety of complementary and contradictory students. Thus, the assessment of market orientation on higher institution services is vital because it has potential in conducive to the development of service quality management in higher education. According to Kundi et al., (2014), higher education around the world provides excellent customer service in order satisfied customer.

In additional, Iro-Idoro et al., (2014) highlighted that services provided in HEI should be of high standard. This is because service quality closely related to student motivation. In past studies, it mentioned that Malaysia higher education approximately delivers same major service to student (Becket & Brookes, 2008). Hanaysha et al., (2011) highlighted that customer satisfaction highly related to service quality in an organization. Likewise, service quality considers as a vital parameter in order achieve an excellent education in higher education.

## **2.7 Service Encounter**

According to Carlzon (1989), Dale (2003), Edvarsson and Nilsson-Wittel (2004), Normann (1984), Zeithmal and Bitner (2000) as quoted in Douglas, McClelland, and Davies (2008), and Douglas, Douglas, and Barnes (2006) mentioned that service encounter as "moments of truth". Service encounter is an interaction between the

service provider and service user regarding service, which affect the overall thought of services every time.

Developing impressions about the service encounter in higher education occur when students come in a diversity of aspects each time. Service encounters in higher institutions evaluated based on criterion student perceptions. Although, the delivery of a higher education appears in various different service providers over many years, but administration services play an important role in student decision on either to continue with the current institution or change to another institution.

Service encounters are defined as high heterogeneous quality service experience which is personal interaction and labour intensive Jager and Gbadamosi (2010). In education sector, service delivery and student satisfaction relied on personal communication between administrative staff and students. Service encounters one of the important elements towards student satisfaction. This is because it will affect overall impression and the valuation of non-academic staff service.

Besides, students will assess the service provided by staff, can be discovered by the exploitation on crucial incident approach. Administrative staff will be assessed by classifying the behaviour of staff on service. By this, it can impact the success or failure of the service provided by them. Students outline service satisfaction based on their interaction with the service staff. Additionally, it might be determined that there is a relationship between the communications which takes

place or service encounter and student satisfaction (Gil, Berenguer, & Cervera, 2007).

## **2.8 Dimension of Non-academic Behaviour/ Service quality**

Zeithmal, Parasuraman and Berry (1991) mentioned that the SERVQUAL model was developed to measure postgraduate student satisfaction. The SERVQUAL model which developed by Parasuraman generic has five dimensions or factors that influence student satisfaction.

The five dimensions are tangibles, reliability, responsiveness, assurance, and empathy. Previous studies, mentions that the SERVQUAL tool is a valuable instrument for measuring service quality in higher education and is appropriate as an exploratory instrument for evaluating postgraduate student satisfaction (Alnsour, Tayeh, & Alzyadat, 2014; Barnes, 2007).

In this study, the researcher chooses three main dimensions for measuring non-academic staff behaviour towards postgraduate student satisfaction. Responsiveness, reliability and assurance suitable for measuring non-academic staff behaviour (Waugh, 2001). Pointed by Gao and Wei (2004), research conducted on Chinese business faculties, found that tangibles and empathy are not having a relationship with satisfaction in higher education. The outcome showed that only reliability and responsiveness have vital correlation with the satisfaction of students.

### **2.8.1 Responsiveness**

Responsiveness one of essential dimension to measure postgraduate student satisfaction towards non-academic staff behaviour. Responsiveness is a more suitable element to be tested in service firm or people-based industry (Lee, Lee, & Yoo, 2000). Kundi et al. (2014); Alnsour, Tayeh, & Alzyadat (2014); Pantouvakis (2010) stated that responsiveness define as willingness to help customers and deliver prompt service by staff.

Staff should have the capability to respond efficiently to customer needs, although they are busy (Tsinidou, Gerogiannis, & Fitsilis, 2010; Munteanu, Ceobanu, Boba<sup>^</sup>lca, & Anton, 2010; Asree, Zain & Razalli, 2010). In this dimension, favourable services provided by administrative staff to students in order to achieve higher satisfaction level. Iro-Idoro et al., (2014) highlighted that the services provided by administrative staff are considered to have a negative impact if not perceived well by the students.

Moreover, students frequently evaluate responsiveness as the basic factor for satisfaction. Responsiveness also attentiveness or helpfulness outlined as willingness and readiness of staff to deliver punctual service, fixing meetings quickly, responding to requests speedily via oral, or electronic mail (e-mail) or telephone (Douglas et al., 2008).

Staff in addition, should be ready to help students and respond their demand and give them appropriate notice when the service is provided. Meaning, staff should help students and not neglect them by saying busy. The capability to recover rapidly and professionally can generate good perceptions of quality when the time service fails to occur.

### **2.8.2 Reliability**

Reliability is also one of the important factors contributing in measure PG student satisfaction towards non-academic staff behaviour. Zeithaml and Bitner (2000) highlighted that reliability is one of the most vital dimension in SERVQUAL model. Reliability describes as ability to execute the promised services with regard and precision (Kundi et al., 2014).

Besides, reliability also classified as the capability to perform the service accurately and dependably (Munteanu, Ceobanu, Boba<sup>l</sup>ca, & Anton, 2010). The knowledge and information delivered by staff should be correct, accurate and up-to-date (Alnsour et al., 2014). Referred to Iro-Idoroet al., (2014), students will give a negative result if the information provided by staff is wrong, imprecise and not up-to-date. So, it also will affect higher education prospects in future.

However, previous studies conducted by Zainuddin et al., (2014) mentioned that students are not satisfied with the service provided if unclear perception regarding the ability of the staff to perform the promised services. The student also



doubts that administrative staff could not manage to perform the services right the first time.

Parasuraman et al., (1991) highlighted that customer expectations through reliability is one of the service outcomes. The exceeding customer expectations largely achieve through responsiveness and assurance which is service processes. Customer satisfaction also depends on the experience of customers with the service delivery process besides reliability of service provided.

Furthermore, the organization should provide a service without creating any errors and the more important deliver service accurately and punctually based on agreed upon (Tsinidou et al., and Pantouvakis 2010). According to Stodnick and Rogers (2008); Chowdhary and Prakash (2007) mentioned that the SERVQUAL instrument which is reliability element more appropriate to the education sector.

### **2.8.3 Assurance**

Assurance dimension also considered as vital to measure PG student satisfaction. Assurance is the knowledge and courtesy of staff and their ability to convey trust and confidence. According to Kundi et al., (2014) and Pantouvakis (2010), assurance describes as the staff's ability to transmit their trust and knowledge. Pointed by Iro-Idoro et al., (2014) and Tsinidou et al., (2010) assurance also outlines the ability of administrative staff to deliver trust and confidence to students.

In other terms, assurance involves courtesy, competence, credibility and protection. Assurance describes as students feel safe with the information, courtesy of employees and capability to express trust and confidence (Alnsour et al., 2014). This element includes competence to operate the service, politeness and respect to the students and make effective communication with students (Munteanu, Ceobanu, Boba<sup>^</sup>lca, & Anton, 2010). Staff behaviour influences student's satisfaction by feel safe and confident in that higher education institution.

Besides, highlighted by Douglas et al., (2008) and Lagrosen, Hashemi, and Leitner (2004), staff should take into account courtesy, politeness, respect, consideration and friendliness of contact personnel when communicate with students. Friendliness defines as smart interpersonal talents which are warm and personal accessibility and joyful attitude (Douglas et al., 2008).EL-refae (2012) stated that assurance plays important role in measure customer satisfaction.

In additional, top management of the corporation must perform an essential function in providing excellent services to the students (Sakthivel, Rajendran, & Raju, 2005). This is because; top management should ensure that their staffs always communicate courteously, politely with students. Further, students will be delighted and comfortable when dealing with employees, which lead to student satisfaction.

## **2.9 Summary of the Related Previous Researches**

Table 2.1

*Summary of Previous Researches*

<b>AUTHOR'S</b>	<b>YEAR</b>	<b>VARIABLE</b>	<b>OUTPUT</b>
Ilias, Rahman, &Razak	2008	Postgraduate Student Satisfaction	-Satisfaction is a function of relative level of expectation and perceives a performance.
Jiewantoa, Laurensb, &Nellohc	2012		-Student satisfaction strongly associated with the service quality in HEI.
Khan et al.,	2011		- Student satisfaction impacts on student efforts towards their studies.
Kundi et al.,	2014		- Customer satisfaction is increase by reducing actual waiting time and through improving customer waiting skill.
Ling, Chai, &Piew	2010		-HEI should heeded student satisfaction due to intensive competition among universities, internationalization spirit and higher expectation from the customer towards greater educational institution.
Ahmed, Nawaz, Ahmad, Ahmad, Shaukat, and Usman	2011		- Student satisfaction important to get best from students.
Sani, Osman, &Daud	2014		- Malaysia universities compete with one another in order to attract local

Bodet	2008		<p>and international students due to the increasing number of students.</p> <p>-Attract new student is difficult compare with maintaining existing student in an institution.</p>
Ahmed et al.,	2010		<p>- Satisfaction in education system is the most vital towards learning goals.</p>
Dib &Alnazer	2013		<p>-Student satisfaction is important to attract and maintain student in higher education.</p>
Malik, Danish, and Usman	2010		<p>- Student satisfaction helps in developing their skills, self-confidence and knowledge.</p>
Banwet&Datta	2003		<p>- Staff must consciously with principle of quality customer service to make student satisfied with the service provided.</p>
Waugh	2001	Responsiveness	<p>-Responsiveness is suitable for measuring non-academic staff behaviour.</p>

Gao and Wei	2004		- Tangibles and empathy are not having a relationship with satisfaction in HEI.
Lee, Lee, & Yoo	2000		- Responsiveness more suitable implement in service firm or people-based industry.
Tsinidou, Gerogiannis, & Fitsilis; Munteanu, Ceobanu, Boba <sup>^</sup> lca, & Anton; Asree, Zain & Razalli.	2010		- Staff should have the capability to respond efficiently customer needs, although they busy.
Iro-Idoro et al.,	2014		- Services provided by administrative staff are considered to have a negative impact if not perceived by the students.
Douglas et al.,	2008		- Responsiveness is attentiveness or helpfulness outlined as the willingness and readiness of staff to deliver punctual service.
Zeithaml and Bitner	2000	Reliability	- Reliability is most vital dimension in SERVQUAL model.
Munteanu, Ceobanu, Boba <sup>^</sup> lca, & Anton	2010		- Reliability also classified as the capability to perform

Alnsour et al.,	2014		the service accurately and dependably. -The knowledge and information delivered by staff should be correct, accurate and up-to-date.
Iro-Idoro et al.,	2014		- Students will give a negative result if the information provided by staff is wrong, imprecise and not up-to-date
Zainuddin et al.,	2014		- Students are not satisfied with the service provided if unclear perception regarding the ability of the staff to perform the promised services.
Parasuraman et al.,	1991		- Customer expectations through reliability are service outcomes.
Tsinidou et al., and Pantouvakis	2010		- The organization should provide a service without creating any errors and deliver service accurately and punctually based on agreed upon.
Stodnick and Rogers; Chowdhary and	2008 & 2007		- Reliability element more appropriate to the HEI.

Prakash			
Kundi et al., and Pantouvakis	2014 & 2010	Assurance	-Assurance is the staff's ability to transmit their trust and knowledge.
Iro-Idoro et al., and Tsiniidou et al.,	2014 & 2010		- Assurance also the ability of administrative staff to deliver trust and confidence to students.
Alnsour et al.,	2014		-Students feel safe with the information, courtesy of employees and capability to express trust and confidence.
Munteanu, Ceobanu, Boba <sup>^</sup> lca, & Anton	2010		-Competence to operate the service, politeness and respect of the students and make effective communication with students.
Douglas et al., and Lagrosen, Hashemi, and Leitner	2008 & 2004		- Staff should take into account courtesy, politeness, respect, consideration and friendliness of contact personnel when communicate with students.
Douglas et al.,	2008		-Friendliness defines as smart interpersonal talents which is warm and personal



EL-refae	2012		accessibility and joyful attitude.
Sakthivel, Rajendran, &Raju,	2005		<ul style="list-style-type: none"> <li>- Assurance is important in measuring customer satisfaction.</li> <li>- Top management of the corporation must perform an essential function in providing excellent services to the students.</li> </ul>

## **2.10 TQM in Higher Education**

TQM is one of the important concepts to provide excellent performance in HEI. Service quality element was introduced by father of quality Joseph M. Juran in quality management. At the same time, he also invented total quality management (TQM). According to Juran & Godfrey (1999), outlined quality as product options that meet the needs of customers and thereby deliver satisfaction. His ideas about the interior customer service, the Pareto principle and manufacturing products or services that meet the customer's necessities were well received by Japanese firms. Likewise, Juran's principles of quality successfully infused the voice of the customer in all aspects of production and service.

Besides, Bansal, Narwat, and Kumar (2014) stated that TQM is one of universal management philosophy and a set of instruments which allow organizations to achieve a definition of quality. In other term, TQM is one of the tools to achieve quality based on customer needs. Many institutions around the world appreciated the benefits of TQM and achieve excellent success. Sudha (2013) stated that TQM principles are suitable to implement in the education sector.

Meanwhile, TQM concepts, where utilizes to revolutionize higher education system (Bansal et al., 2014). In higher education, TQM is one of the unavoidably common factors to shape the strategies. Previous studies, like Al- Khatib (2011) mentioned that TQM in universities should get participation of all stakeholders to ensure survival and continuity of universities. According to Bansal et al., (2014)

higher education TQM helps to increase staff morale, build teamwork among departments, linking staff functions and continuous improvement of all stakeholders.

Moreover, TQM also allows administrative staff to understand and continuously improve the task they manage (Abdulraheem, 2013). According to Campatelli et al., (2011), TQM defined as the way the institution is expected to operate in order to attain excellent performance. In another word, in higher education TQM is an unavoidable element aim to form the strategies capable to satisfy various stakeholders (Ali & Shastri, 2010); such as students, parents, industry and society. TQM is described as a management approach that aims to achieve and maintain long-term organizational success by encouraging staff to satisfy customers' needs and expectations. (Abdulraheem, 2013)

Furthermore, TQM is concerned attaining excellence in service, and it should make the proper attitudes in giving service to students because it can have influence on their satisfaction in the future (Lakhe & Mohanty, 1995). Thus, as highlighted in Lakhe and Mohanty (1995), TQM should get a commitment from each single staff within the organization, in order that the potency and effectiveness of the organization can be attained. Abdulraheem (2013) stated that the staffs are given the chance to exploit the possible way of producing quality outputs in TQM concepts.

TQM should implement in higher education. This is because, the improvement required stakeholders, especially top management in organizing (Sudha, 2013). TQM concern with continuous improvement of the organization in

order to ensure that the quality of services is delivered effortlessly to students. In this service system, TQM concepts help to solve all regular issues. Additionally, by doing so, HEI can improve their administration service on a daily in accordance to student expectation.

In the studies conducted by Beaver (1994) and Wiklund (1999) as cited in Sakthivel et al., (2005), TQM are crucial aspects of higher institutions to validate that students are being well served and consequently the central focus of TQM is evaluating student satisfaction. TQM concerned with the quality of management strategy accepted throughout the university, it concerned non-academic workforce and academic workforce that focus on all interacted tasks. Such as administration, teaching and researching. This implies that TQM is a method that encourages practices on the principal activities of universities when attempting to cultivate quality in organizational culture.

In addition, staff will feel inspired as they can contribute something to the institution when TQM is totally adopted. For example, employees provide opinions and generated improvement regarding in the institution. At the same time, when staff is inspire, it will impact their attitude towards task given and consequently they will feel happy and revel to execute their task.

## **2.11 Conclusion**

From the literature review, it concludes that non-academic staff behaviour impacts PG student satisfaction and also highly influence university image. If non-academic staff provides high quality service, students will be highly satisfied. So, non-academic staff behaviour plays an important role towards postgraduate student satisfaction. The research design of this study is explained in the next chapter.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the methodology used by the researcher in collecting valuable information for this study. According to Zikmund (1988), researchers should develop research design, after formulating a research problem. Research design is one of the strategies for choosing the sources and kinds of knowledge to apply in answering research questions (Mahmud, 2008). Overall, this chapter provides descriptions analysis of the research framework, hypotheses, research design, measurement of variables, data collection method, population of the study, unit of analysis, sample size and sampling, data collection procedures, techniques of data analysis and conclusion.

#### **3.2 Research Framework**

This research utilizes four variables inclusive of three independent and one dependent variable as shown in Figure 3.1. The dependent variable in this study is PG student satisfaction in order to measure overall satisfaction towards non-academic staff behaviour in UUM. Parasuraman's SERVQUAL dimensions were adopted as an independent variable in this study. Furthermore, the adopted three main SERVQUAL dimensions were applied in this research are suitable to measure non-academic staff behaviour in UUM. Figure 3.1, presents those adopted dimensions in this study, which are responsiveness, reliability and assurance.

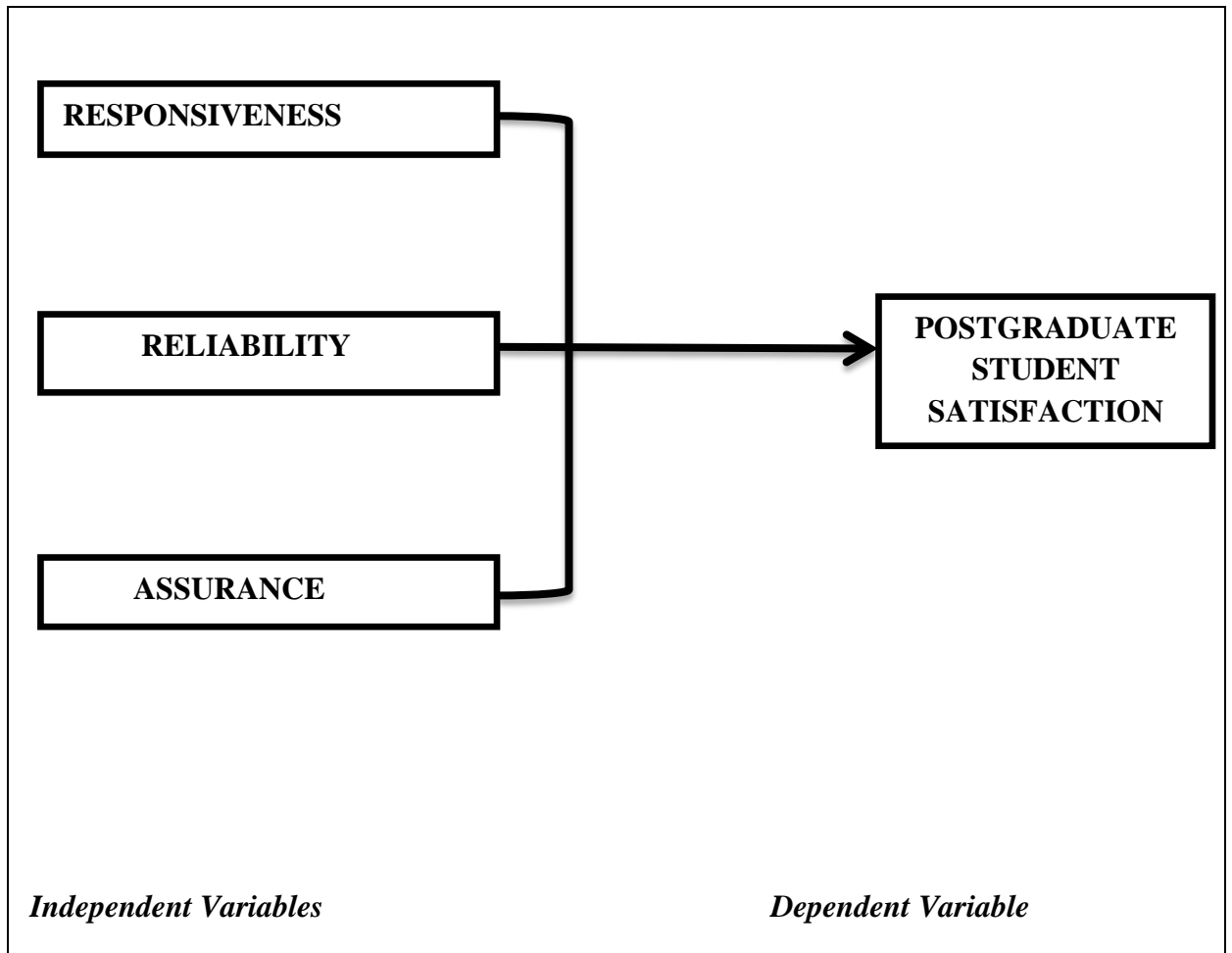


Figure 3.1

*Research Framework*

### **3.3 Hypotheses**

There are four variables in this study, namely, postgraduate student satisfaction (dependent variable), responsiveness, reliability and assurance as independent variables. Three hypotheses were developed for testing and validation.

### **3.3.1 Responsiveness and postgraduate student satisfaction**

Kundi et al., (2014); Iro-Idoro et al. (2014) Beaumont and Goatman (2012); Khan et al. (2011); Gao and Wei (2004) stated that responsiveness is significantly related to student satisfaction. Alnsour et al., (2014) also highlighted that responsiveness is positively correlated with student satisfaction. Accordingly, this study observed a significant relationship between responsiveness and postgraduate student satisfaction. The following section discusses on the developed hypotheses:

**H 1:** There is a significant relationship between responsiveness and postgraduate student satisfaction.

### **3.3.2 Reliability and Postgraduate Student Satisfaction**

Prior research supports that responsiveness is positively related to the student satisfaction (Iro-Idoro et al., 2014; Zainuddin et al., 2014; Beaumont & Goatman, 2012; Hanaysha et al., 2011; Khan et al., 2011). Zeithaml et al., (2000) stated that, reliability is one of the important dimensions used to measure service quality and student satisfaction. Consistent with the previous studies, the following hypothesis was developed:



**H 2:** There is a significant relationship between reliability and postgraduate student satisfaction.

### **3.3.3 Assurance and Postgraduate Student Satisfaction**

According to Kundi et al., (2014); Iro-Idoro et al., (2014); Beaumont & Goatman, (2012); Douglas et al., (2008); Sakthivel (2005) as well as Rajendran and Raju (2005), applied assurance as an independent variable. The result indicates that, assurance affects the student satisfaction. This is in line with the statement of Ilias and Hasan (2008) that the assurance significantly related to student satisfaction. Therefore, the following hypothesis was constructed:

**H 3:** There is a significant relationship between assurance and postgraduate student satisfaction.

### **3.4 Research Design**

The purpose of this study is to examine the relationship between independent variables which are, responsiveness, reliability, assurance while the dependent variable is PG student satisfaction. Quantitative approach was applied in this study by distributing questionnaires to participants. Cross-sectional research design was implemented in this study to determine data collection result. According to Sekaran

& Bougie (2010), the suitable data collection result should be in a single point in time. A survey technique was used in this study by distributing the questionnaire to collect data. Besides that, questionnaires were distributed among selected higher education's students, who were UUM PG students in this study.

### **3.5 Operational Definition**

#### **3.5.1 Postgraduate Student Satisfaction**

Satisfaction is defined as a state of feel a human who has experienced performance or an outcome that fulfill his or her expectation. Kotler et al. (2011) mentioned that the satisfaction is an individual's feeling of excitement that results from evaluating the performance of a product or service based on their expectations. Jiewantoa et al., (2012) stated that student's satisfaction strongly related to service quality in higher education. Moreover, student satisfaction also impacts on student's efforts towards their studies (Khan et al., 2011). Student satisfaction is one of the improvement of the image, the availability of improved hardware and human as customer service whereby, at the same time, satisfied student will have a tendency to be loyal with a similar institution (Brown and Mazzarol, 2008).

#### **3.5.2 Responsiveness**

Responsiveness is personnel space to provide services for customers and solve customer complains or queries. Generally, responsiveness described as a willingness and readiness of staff to deliver punctual service, fixing meetings quickly,

responding to requests speedily via oral, or electronic mail (e-mail) or telephone (Douglas et al., 2008).

### **3.5.3 Reliability**

Reliability defined as the ability to perform the promised service in a dependable and accurate manner. The service is performed correctly on the first occasion; the accounting is correct, records are up to date and schedules are kept. Reliability describes as ability to execute the promised services with regard and precision (Kunai et al., 2014). The capability to perform the service accurately and dependably classified as reliability (Munteanu, Ceobanu, Boba<sup>^</sup>lca, & Anton, 2010).

### **3.5.4 Assurance**

Assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence. Assurance involves courtesy, competence, credibility and protection. Assurance also describes as students feel safe with the information, courtesy of employees and capability to express trust and confidence (Alnsour et al., 2014).

## **3.6 Measurement of Variables/Instrumentation**

Questionnaire is used to obtain necessary data in this research. This questionnaire adopted from Parasuraman's SERVQUAL. However, some of the questionnaire items were adopted from previous studies, which were from Rasli et al., (2012) and Yusop (2012). The questionnaire contains two sections; namely Section A and

Section B. Section A contains personal information of the respondent's i.e. demographic variable such as gender, age, marital status, citizenship, religion, current educational level and current year of study. Meanwhile, section B consists of postgraduate student's perception towards staff behaviour and overall student satisfaction. Likert scale ranging from "1" (strongly disagree) to "5" (strongly agree) is used to measure PG student satisfaction towards non-academic staff behaviour.

### **3.7 Data Collection Method**

According to Zikmund (1988), primary data are data collected or gathered directly from targeted respondents. In this research, questionnaires were distributed by the researcher as a medium to get information. A questionnaire was a suitable approach for data collection since researcher able to gain information from the participants in a short period. Chauvel and Depres (2002) stated that questionnaire consist a huge coverage of participants in the sample of the study and provided clear information. The researcher distributed questionnaires to PG students in UUM, Sintok Campus in this study. The questionnaires are collected directly from the students immediately once it is completed. Besides, secondary datas were refered from some previous studies which is related to the present study field, for example suggested by the previous researchers; information from websites, various journal literatures and books as guideline to conduct the study.

### 3.8 Population of the Study

The population of the study consists of 6,618 local and international postgraduate students in UUM, Sintok Campus. Table 3.1 depicts the current total number of PG student in UUM. PG student in UUM divided into the PhD, D.Mgmt, DBA, Master and PG Diploma. Master PG student occupies the highest number in UUM.

Table 3.1

*Total number of Postgraduate Students in UUM*

	<b>CURRENT POSTGRADUATE STUDENT IN UUM</b>		
<b>Category</b>	International	Malaysian	Total
<b>PhD</b>	941	885	1826
<b>D.Mgmt</b>	-	71	71
<b>DBA</b>	32	414	446
<b>Master</b>	469	3664	4133
<b>PG Diploma</b>	-	142	142
<b>Total</b>	1442	5176	6618

**Source:** HEA UUM (July 2, 2014)

### **3.9 Unit of Analysis**

Unit of analysis of this study is the postgraduate student of University Utara Malaysia, main campus in Sintok, Kedah.

### **3.10 Sample Size**

Zikmund (1988), mentioned that size of the sample identified by the estimated variance of the population, the significance of the appropriate error and the confidence level. The sample is part of the population element chosen to represent the whole population. Therefore, it is a subset of the population (Bryman & Bell, 1988). In this research, since the population elements consist of 6618 postgraduate students in UUM, Sintok Campus. Krejcie and Morgan (1970) stated that if the population element range between 6000 to 7000, then the sample size of 363 is to be used.

The researcher distributed 400 questionnaires in this study. Upon collecting back from the respondents, 271 questionnaires are usable and valid out of these 400 questionnaires. The present study applies convenience sampling (i.e., a non-probability sampling technique). Convenience sampling is a way to get the respondent that self- selection of respondent who is willing to take part in the study (Spector, 2008). According to Canvana, Delahaye and Sekaran (2010), convenience sampling is the most suitable method for collecting the basic data or information within a short period and efficiently to complete the research.

### **3.11 Data Collection Procedures**

Current study collects data by distributing self-administered questionnaire to members of the study (postgraduate students) while a cover letter was provided indicating research topic thereby motivating participants to answer the questions objectively. The questionnaires were adopted, as such, considered to be an appropriate one, and organized in such a way that respondents will study and answer within a short period (Sekaran, & Bougie, 2010). The data collection process was conducted from 13<sup>th</sup> September until 21<sup>st</sup> September 2014.

### **3.12 Techniques of Data Analysis**

The data analysis was performed through ‘Statistical Software Package’ of SPSS version 19. The pilot test was not conducted for this study due to time constraint. Firstly, descriptive test was conducted to recognize the information about the means, standard deviation and frequency of variables. Descriptive analysis used to illustrate levels of customer satisfaction based on their experience. Next, in testing the relationship between the dependent and independent variable reliability test was conducted in this study. According to Hayes (1998), reliability test helps to identify respondent feedback in the questionnaire and make sure all items included in the questionnaire are correlated with measurements. The reliability test measured to identify Cronbach Alpha coefficient value. Cronbach Alpha is considered as probability if the value is 0.70 (Sekaran, 2005 & Nunally, 1978). Furthermore,

correlation analysis illustrates the relationship between independent variables (responsiveness, reliability and assurance) and dependent variable (postgraduate student satisfaction). Cavana, Delahaye & Sekaran (2000) mentioned that regression test used to analyse hypothesis and the value accepted as significant if the  $p\text{-value} < 0.05$ . Regression analysis determines the impacts of independent variables regarding dependent variable. However, multiple regression analysis is used in this study. Wahid (2011) stated two or more independent variables can interact with dependent variable. Multiple regression analysis is more suitable to measure the relationship between dependent and independent variables accurately.

### **3.13 Conclusion**

In conclusion, this chapter outlines the research design in detail. The study used both methods of data collection, i.e. primary and secondary data sources as specified in the sample frame. The measurement for each variable discussed in detail, data collection and analysis methods also presented. The next chapter will analyse the collected data and interpret the result in an accurate and significant way of measuring postgraduate student satisfaction towards non-academic staff behaviour.



## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter discusses the findings of data analysis, which obtained from respondents. This chapter consists of descriptive statistics, correlation and regression analysis for variables. A reliability test performed as internal consistency of measurement before the analysis. A summary of the findings is also included in this chapter.

#### **4.2 Response Rate**

For this research purpose, questionnaires were distributed randomly among UUM postgraduate students as respondents. The sample size of this study is three hundred and sixty-three. A total of four hundred questionnaires were distributed to PG students of UUM. Two hundred and seventy-one usable questionnaires returned, and unusable questionnaires were returned with blank responses. The valid respondent's rate is 67.75%, which are 271 usable and returned questionnaires out of 400 questionnaires. Sekaran (2003) stated that 30% response rate can consider as suitable for cross-sectional study. So, 67.75% response rate in this study can be considered as valid and sufficient.

### 4.3 Respondents Profile

Table 4.1 depicts the demographic profile of the respondents which describe overall respondent's details. In this study, 135 of respondents were male presenting 49.80 percentage and 136 equivalent to 50.20 percentage of respondents were female. In terms of age, 152 respondents (56.10%) are between 20-30 years old, and 80 respondents (29.5%) are between 31 to 40 years old. Lastly, 39 of the respondents (14.40%) were among 41 and above in age.

The marital status of the participant shows that majority respondents are single, 160 respondents (59.00%), followed by married participants of 100 (36.90%) and 11 (4.1%) are in other categories. Moreover, 139 (51.30%) respondents were Malaysian students and followed by international participants of 132 (48.70%) students involved in this evaluation.

Table 4.1 shows that, 104 (38.40%) of the respondents were Malay, whereas, 27 (10.00%) of the respondents were Indians. In addition, 17 respondent (6.30%) of the respondents were Chinese, and finally 123 (45.40%) of respondents fall under other categories of race. On the other hand, in religion category, there were 212 respondents who are Islam (78.20%), 27 respondents were Hindu (10.00%), 20 respondents were Christian (7.40%), 9 respondents were Buddhist (3.30%) and finally remaining 3 respondents were categorised under others (1.1%).

As for the educational level of the respondents, 181 participants were Master students (66.80%), and 90 participants were Ph.D./DBA students (33.20%). The

majority of the respondents in this study are second year students, totalling to 106 students (39.10%), meanwhile students in third year and above were 89 students which is equal to 32.80% and first year participants were 76 students (28.00%).

Table 4.1

*Respondent Profile*

	Frequency	Percentage
<b>Gender</b>		
Male	135	49.80
Female	136	50.20
<b>Age</b>		
20-30	152	56.10
31-40	80	29.50
41 and above	39	14.40
<b>Marital Status</b>		
Single	160	59.00
Married	100	36.90
Others	11	4.10
<b>Citizen</b>		
Malaysian	139	51.30
International	132	48.70

<b>Race</b>		
Malay	104	38.40
Chinese	17	6.30
Indian	27	10.00
Others	123	45.40
<b>Religion</b>		
Islam	212	78.20
Christian	20	7.40
Buddhist	9	3.30
Hindu	27	10.00
Others	3	1.10
<b>Current Education Level</b>		
Master	181	66.80
PhD/DBA	90	33.20
<b>Current Year of Study</b>		
First	76	28.00
Second	106	39.10
Third and Above	89	32.80

#### 4.4 Descriptive Statistics of the Study's Variables

Table 4.2 below explains the mean and standard deviation computed for each variables. In this analysis five point Likert scales were used to measure four variables (student satisfaction, responsiveness, reliability, and assurance). The mean values ranged from 3.48 to 3.59 and the standard deviation values ranged from .71 to .85.

Table 4.2

*Descriptive Statistics of the Study Variables*

Variable	Mean	Std. Deviation
Student satisfaction	3.59	.85
Responsiveness	3.48	.71
Reliability	3.57	.72
Assurance	3.57	.77

#### 4.5 Reliability

A reliability test was conducted in this research to determine the internal consistency and usability of the measurement. Shekarchizadeh et al., (2011) highlighted that reliability test is suitable to measure postgraduate student satisfaction in HEI. According to Nunally (1978); Hair, Black, Babin, Anderson and Tatham (2006) the minimum acceptable Cronbach's Alpha value is .70 and the data considered as reliable in terms of the internal consistency reliabilities. The result obtains from table 4.3 below shows that, Cronbach's Alpha ranged between .83 to .90.

Table 4.3

*Reliability Statistics of the Study Variables*

Variable	No. of Items	Cronbach Alpha
<b>Student Satisfaction</b>	<b>3</b>	<b>.88</b>
<b>Responsiveness</b>	<b>6</b>	<b>.83</b>
<b>Reliability</b>	<b>7</b>	<b>.88</b>
<b>Assurance</b>	<b>6</b>	<b>.90</b>

#### **4.6 Hypotheses Testing**

Sekaran (2003) stated that Pearson correlation matrix is one of the tools to determine the relationship, direction and strength of variables. Pearson correlation and multiple regression tests computed in this research. Pallant (2002) stated that Pearson correlation analysis is one of the basic assumptions of multiple regressions and also used to determine the relationship between each independent variable and dependent variable.

Multiple regression analysis is one of the important measurements used to identify significant levels of dependent and independent variables. According to Pallant (2002) multiple regressions is categorized into three types, namely standard or simultaneous, hierarchical or sequential and stepwise. The current study used standard multiple regression to measure the relationship between independent and dependent variables.

#### **4.7 Correlation Analyses**

Pearson Correlation used to identify the relationship between dependent and independent variables. Table 4.4 is adopted from Davis (1971) explained correlation coefficient outcomes. As shown in table 4.4, very strong correlation coefficient result show if 0.70 and greater. Then followed by strong result when correlation coefficient between 0.50 to 0.69 whereas, 0.30 to 0.49 shows medium correlation coefficient result. Finally, (0.10 – 0.29) shows weak correlation coefficient results and not existence when correlation coefficient is 0.01 to 0.09.

Table 4.4

*Correlation Coefficient (Adopted From Davis, 1971)*

<b>Correlation Coefficient</b>	<b>Strength of Linear Relationship</b>
<b>0.70 and greater</b>	Very strong
<b>0.50 – 0.69</b>	Strong
<b>0.30 – 0.49</b>	Medium
<b>0.10 – 0.29</b>	Weak
<b>0.01 – 0.09</b>	Not existence

Result obtains from table 4.5 explain the correlation analysis between four variables (student satisfaction, responsiveness, reliability and assurance). Firstly, responsiveness, reliability and assurance are positively and significantly correlated with student satisfaction ( $r = .73, .78$  and  $.79, p < .01$ , respectively). Moreover, reliability and assurance were positive and significantly correlated with responsiveness ( $r = .81$  and  $.76, p < .01$ , respectively). Lastly, assurance also positively and significantly correlated with reliability ( $r = .77, p < .01$ ).



Table 4.5

*Correlations for Study Variables*

	<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>1</b>	Student satisfaction	1			
<b>2</b>	Responsiveness	.73**	1		
<b>3</b>	Reliability	.78**	.81**	1	
<b>4</b>	Assurance	.79**	.76**	.77**	1

Note. \*p <.05. \*\*p <.01 (one tailed test)

**4.8 Data Screening**

Regression analysis was conducted to determine validity and reliability of data. There were no missing data found when all data screened using SPSS and it showed good outcome (Appendix c). The data for the current study also tested for violation of multicollinearity assumption. The variance inflation factor (VIF) and tolerance were used to detect whether one or two independent variables are highly correlated. Hair, Sarstedt, Ringle and Mena (2012) provide the guidelines for testing multi collinearity in their studies (VIF < 5 / tolerance > 0.20; condition index <30). From the table 4.6 result, the VIF value ranged from 2.81 (assurance) to 3.44 (reliability) and the tolerance value ranged from .29 (reliability) to .36 (assurance). Consequently, it shows that the study passes the problem of multicollinearity.

Table 4.6

*Multicollinearity Statistics*

<b>VARIABLE</b>	<b>COLLINEARITY STATISTICS</b>	
	Tolerance	VIF
<b>Responsiveness</b>	.30	3.33
<b>Reliability</b>	.29	3.44
<b>Assurance</b>	.36	2.81

**4.9 Regression Analyses**

Regression analyses was conducted to identify the relationship between the variables.

Table 4.7 shows that, three independent variables (responsiveness, reliability and assurance) are contributing to postgraduate student satisfaction. In other word, the independent variable considering  $R^2$  value of 0.696 explain, 69.60% changes on postgraduate student satisfaction.

Table 4.7

*Model Summary*

<b>Model</b>	<b>R</b>	<b>R Square</b>
<b>1</b>	.836	.696

Furthermore, the relationship between the variables is measured using one tailed test to verify the hypothesis. The significant level identified by utilizing t-value of this study. The hypothesis is accepted if the t-value > 1.645 and relationship among variables also show significant results (Lind, Marchal and Wathen, 2013; Kumar, Talib and Ramyah, 2013).

Table 4.8

*Result of the Multiple Regression Analysis (Postgraduate Student Satisfaction as Dependent Variable)*

<i>Hypotheses</i>	<i>Variable</i>	<i>Beta</i>	<i>SE</i>	<i>t-value</i>	<i>p-value</i>	<i>Findings</i>
<b>H1</b>	Responsiveness	.13	.07	2.14	.03	Supported
<b>H2</b>	Reliability	.34	.07	5.48	.00	Supported
<b>H3</b>	Assurance	.43	.06	7.64	.00	Supported

Note: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

First of all, **Hypothesis 1** illustrated that responsiveness is positively correlated to student satisfaction. As shown in table 4.8 above, there is a significant and positive relationship between responsiveness and student satisfaction ( $\beta = .13$ ;  $t = 2.14$ ;  $p < .05$ ). Therefore, this finding supported Hypothesis 1 which indicates that high levels of non-academic staff responsiveness lead to increase in postgraduate student satisfaction.

In addition, **Hypothesis 2** stated that, reliability is positively correlated to postgraduate student satisfaction. Table 4.8 shows that, reliability is significantly and positively correlated with postgraduate student satisfaction ( $\beta = .34$ ;  $t = 5.48$ ;  $p < .01$ ). This result supported Hypothesis 2, which indicates that high level of non-academic staff reliability leads to increase in postgraduate student satisfaction.

Lastly, **Hypothesis 3** proposed that an assurance be positively correlated to postgraduate student satisfaction. The result obtained from table 4.8 indicated that, the assurance is significantly and positively correlated with postgraduate student satisfaction ( $\beta = .43$ ;  $t = 7.64$ ;  $p < .01$ ). Thus, Hypothesis 3 is supported and the study equally concludes that high level of a non-academic staff assurance will lead to greater postgraduate student satisfaction.

#### **4.10 Summary of Findings**

Table 4.9 reveals the summary of the hypothesis result. The findings show that all the independent variables (responsiveness, reliability, assurance) are significantly and positively related to postgraduate student satisfaction. The following chapter will discuss the conclusion and recommendation of this research.

Table 4.9

*Summary of Hypotheses Testing*

<i>Hypotheses</i>	<i>Statement</i>	<i>Findings</i>
<b>H1:</b>	Responsiveness	Supported
<b>H2:</b>	Reliability	Supported
<b>H3:</b>	Assurance	Supported

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

The purpose of this study is to examine the relationship between non-academic staff behaviour (responsiveness, reliability, assurance) and postgraduate student satisfaction in UUM. In overall, this chapter discusses and concludes the findings of empirical studies. The chapter presents the descriptive analysis and the findings of the study. Meanwhile, hypothesis testing and outcomes also considered. The variables are discussed further from the results obtained. Furthermore, the implication and limitation of the study were discussed in this chapter. Lastly, recommendations for future researches as well as the study's conclusion were stated at the end of this chapter.

#### **5.2 Discussion**

The study discusses the relationship between the independent variables (responsiveness, reliability, assurance) and the dependent variable (PG student satisfaction UUM) among postgraduate students. A self-administrated questionnaire designed and distributed to respondents as a data collection technique for this study. The questionnaire contains two sections, namely Section A and Section B.

Section A covers demographic description of the respondents such as gender, age, marital status, citizenship, religion, current educational level and current year of study. Section B consists of dependent variable measurements (PG student

satisfaction) and independent variable measurements (responsiveness, reliability, assurance).

### **5.2.1 Responsiveness and Postgraduate Student Satisfaction**

Kundi et al., (2014); Iro-Idoro et al. (2014) Beaumont and Goatman (2012); Khan et al. (2011); Gao and Wei (2004) stated that responsiveness is significantly related to student satisfaction. Alnsour et al., (2014) highlighted that responsiveness positively correlated with student satisfaction. The results of the current study also showed that there is a significant and positive relationship between responsiveness and postgraduate student satisfaction. Table 4.3 provides the relationship between responsiveness and postgraduate student satisfaction measured using reliability statistics test. The results shows a strong relationship between two variables ( $r = .83$ ,  $n = 271$ ,  $p < .01$ ). The hypothesis 1 is accepted as shows in table 4.9.

### **5.2.2 Reliability and Postgraduate Student Satisfaction**

Previous studies indicated that, responsiveness is positively related to student satisfaction (Iro-Idoro et al., 2014; Zainuddin et al., 2014; Beaumont & Goatman, 2012; Hanaysha et al., 2011; Khan et al., 2011;). Zeithaml et al., (2000) pointed that, reliability is one of the important dimensions used to measure service quality and student satisfaction. The reliability test used to investigate the relationship between reliability and PG student satisfaction as shown in Table 4.3. Hypothesis 2 is



accepted as stated in table 4.9. Thus, there is a strong relationship between two variables ( $r = .88$ ,  $n = 271$ ,  $p < .01$ ).

### **5.2.3 Assurance and Postgraduate Student Satisfaction**

Previous studies of Kundi et al., (2014); Iro-Idoro et al., (2014); Beaumont & Goatman, (2012); Douglas et al., (2008); Sakthivel as well as Rajendran and Raju (2005) uses assurance as an independent variable. The result indicates that assurance affects the student satisfaction. This has been further proved by the present study as shown in Table 4.3 that is assurance positively related to PG student satisfaction. Ilias and Hasan (2008) stated that the assurance is significantly related to student satisfaction. As shown in table 4.9, hypothesis 3 is accepted and concludes that there is a strong relationship between two variables ( $r = .90$ ,  $n = 271$ ,  $p < .01$ ).

### **5.3 Theoretical Implication of Study**

The current study result also noticed that, high-level service rendered by non-academic staff has an influence on PG student satisfaction in a positive direction. Therefore, it is recommended that, non-academic staff should always provide excellent service to the student.

In summary, previous study stated that, student satisfaction is highly important in higher education institution (Dib & Alnazer, 2013; Jiewantoa, Laurensb & Nellohc, 2012; Naik, Gantasala & Prabhakar, 2010; Ahmed, Nawaz, Ahmad, Ahmad, Shaukat & Usman, 2010; Ahmed et al., 2010). Responsiveness, reliability

and assurance are positively influenced student satisfaction as indicated by previous literatures (Kundi et al., 2014; Iro-Idoro et al., 2014; Zainuddin et al., 2014; Beaumont & Goatman, 2012; Hanaysha et al., 2011; Khan et al., 2011; Douglas et al., 2008; Sakthivel, Rajendran & Raju 2005; Gao & Wei, 2004; Zeithaml et al., 2000), it is evident that, the literatures are in line with the findings from this present study in UUM.

#### **5.4 Practical Implication of Study**

This study mentioned that non-academic staff behaviour influence postgraduate student satisfaction. The PG student satisfaction findings contributed to strengthen and validate the literature of student satisfaction as well as variables utilized in this study. The independent variables are important to student satisfaction as proved in this study. The findings supported previous studies which stated that student satisfaction influenced by the independent variables (responsiveness, reliability and assurance).

Firstly, student satisfaction is strongly influenced by non-academic staff responsiveness. The current study also illustrated that responsiveness is positively affecting student satisfaction and further supported the literature on responsiveness. PG student satisfaction increases when non-academic staff responsiveness is high. Then again, reliability and PG student satisfaction is positively related to student satisfaction as stated in previous studies. Lastly, assurance is also positively related to PG student satisfaction and further validates the literature of both variables.

In overall, this study shows that PG are satisfied with the service provided by non-academic staff in UUM. The results show that  $R^2$  value is 0.696. Based on the results, a non-academic staff should not be complacent with this service level. They should continue to improve their services to achieve the goal of UUM to be the “Eminent Management University”. Continuous improvement will help improve product and services based on customer needs with efficient and flexibility. From this, the researcher strongly believes that more students will choose UUM as their preferred institution to further their postgraduate studies if non-academic staff could provide excellent services.

### **5.5 Limitation and Recommendation for Future Research**

There are several limitations identified in this study. First and foremost, the study was only conducted at UUM Sintok, whereas, UUM PG student are also in other campuses such as UUM KL, ATC Ipoh, Kajang, Shah Alam, Sabah and Penang. Future study should consider the overall population. Secondly, future research can look into other variables; such as empathy and tangible. Besides, the same variables can be also utilized (student satisfaction, responsiveness, reliability, assurance) for future research, but can be further enhanced by introducing mediator and moderator.

### **5.6 Conclusion**

Postgraduate student satisfaction was measured and analysed in this chapter. Student satisfaction, especially PG student considered as a prominent element to measure efficiency and effectiveness of non-academic staff. The result shows a significant

relationship between independent variables (responsiveness, reliability, assurance) and dependent variables, which is, PG student satisfaction quantified by the service provided by non-academic staff in UUM. The study measures student satisfaction with their academic experiences, which is definitely a challenging task. However, once done it will help higher education to upgrade their services based on student comments. This is mainly due to the HEI considered student as primary stakeholders in the global competitive arena.

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