



Factors Relating Student Satisfaction of Assumption  
University

By

PIMPHICHAYA JONGKAITTIKARN

A Survey Research Report for  
MS 7000 Research/IS project

Submitted in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Management

December 2008





Assumption University of Thailand  
COLLEGE OF INTERNET DISTANCE EDUCATION

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Submitted in Partial Fulfillment of the Requirements for the Degree of  
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## ABSTRACT

Research Project Title: FACTORS RELATING STUDENT SATISFACTION OF ASSUMPTION UNIVERSITY

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The objectives of this study were to determine the relationship between Tangibles, Reliability, Responsiveness, Course Environment and Lecturer competence with Student satisfaction over the Assumption University and to identify factor related to student satisfaction towards Assumption University.

This was a survey research. The population was unknown. The sample were 300 using non-probability sampling method. The data collecting instruments were questionnaire form. The data were analyzed using SPSS for Window Version 15.0.

The findings were as follows:

- 1) From descriptive analysis total 322 sets were returned. And, 300 sets of questionnaire were complete and valid. The data was collected from the volunteers who were studying in Assumption University. The researcher distributes the question area around Assumption University in term of convenience sampling to collect the information from the student directly and wait until they finish the questionnaire. In this research the researcher distributed questionnaires based on convenience. The majority of the respondents was female, income lower than 5,000 and average age was around 20 years old which was sophomore and belong to school of management in Assumption University.
- 2) It was found that all factors (tangibles, reliability, responsiveness, course environment and lecturer competence) had positive relationship with student satisfaction of Assumption University. There was a strong positive relationship between lecturer competence and student satisfaction towards Assumption University. There was moderate positive relationship between tangibles, reliability, and responsiveness and student satisfaction towards Assumption University. Finally, there was a weak positive relationship between course environment and student satisfaction in Assumption University.

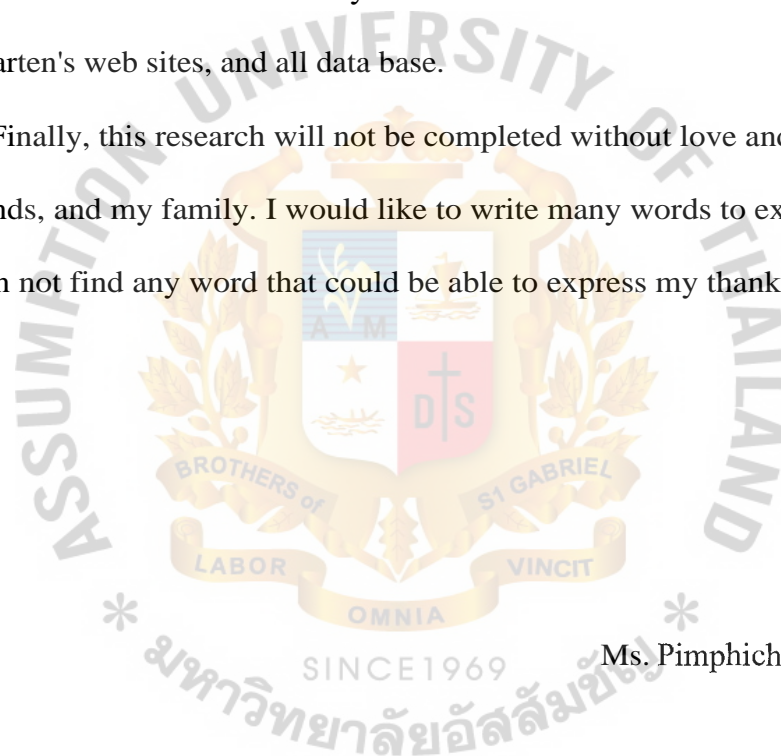
Keywords: Tangibles, Reliability, Responsiveness, Course Environment, Lecturer Competence, Student Satisfaction, Assumption University

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# CHAPTER 1

## INTRODUCTION

### 1. Background Information

In Thailand, the education program was set by the Ministry of Education which is a department of the government. Mostly, one's education starts with early study in the kindergarten level which is for the person aged from 3 years old and above. The educational level of Primary school and high school are set as the basic educational level of every people. Every year the government will send their staff to check the quality of the school and university in each area. This entire education program, from primary to high school, is the first step to prepare the student to be ready for their learning and knowledge they will gain in the university (<http://www.moe.go.th>).

The universities in Thailand were separated into two main types which are private and public universities. The difference of these two types is that the public universities are belonged to the government or bureaucratic organizations, but private university are belonged to the others organizations which are not under or manage by the government. Assumption University is classified as private university because it was belong to the Saint Gabriel of Assumption, Montfort in France. In Thailand, there are many school that belongs to the Saint Gabriel of Assumption, and students in those school will have a better chance to study in Assumption University because the schools they study are under the branch of the Saint Gabriel Community which will prepare their students to be ready for the international environment in Assumption University as they curriculum provides their students with the class of English language. The numbers of English classes of the



schools in the Saint Gabriel Community are much more than the numbers of English classes offer in the public or some private schools. For example, Assumption College Samutprakarn has an English class around 2 hours a day.

Even this university was a private university, but its quality of education is still need to be measure by the ministry of education department (<http://www.moe.go.th>).

## **2. Statement of the problem**

The Ministry of Education department has the duty to control and evaluate the universities in Thailand to have a good standard when compare with other countries. By the way, sometimes, the government was tried to evaluate the skills the university teach and the satisfaction of the student in the university towards these skills they acquired. Assumption University was the first international university in Thailand, and this university has also been classified as high class university in public's perception. For the student in the university from the previous study, it still has less study in the topic concern about the quality of the university.

In this research study, researcher would like to focus on the measurement of student satisfaction towards Assumption University. The independent variable of this research was tangibles, reliability, responsiveness, course environment, and lecturer competence

These independent variables were selected in order to measure the student satisfactions towards Assumption University.

### 3. Objective of the research

- 1 To investigate the relationship between university's tangibles dimension and student's satisfaction at Assumption University
- 2 To investigate the relationship between university's reliability dimension and student's satisfaction at Assumption University
- 3 To investigate the relationship between university's responsiveness dimension and student's satisfaction at Assumption University
- 4 To investigate the relationship between university's course environment method dimension and student's satisfaction at Assumption University
- 5 To investigate the relationship between university's lecturer competence dimension and student's satisfaction at Assumption University

### 4. Research question

- 1 What is the relationship between tangibles and student satisfaction at Assumption University?
- 2 What is the relationship between reliability and student satisfaction at Assumption University?
- 3 What is the relationship between responsiveness and student satisfaction at Assumption University?
- 4 What is the relationship between course environment and student satisfaction at Assumption University?

5 What is the relationship between lecturer competence and student satisfaction at Assumption University?

## **5. Significant of the research**

The result of this research will be a direct benefit to the Assumption University. The result of this research will explain how Assumption University need to develop itself not only for the student's satisfaction as shown in the topic, but also the reputation of the university that those graduated student will explain to the other people in the society as well. Moreover, other universities can also use this research to be as a case study as the result of the research can apply to other universities as an indirect correlation in Thailand. For the public readers, this research can be used in order to give reader a better understanding of Assumption University on how Assumption University's students think and perceive towards their University while they are studying in it. This research can be considered as a message from the university to the public. Therefore, the result of this research is very important to both the Assumption University and Thai society.

## **6. Limitation of the Research**

This research focused on the satisfaction of the student in the Assumption University only, therefore the research was come from this specific university. The specification in this research, Assumption University, may not appropriate to the other universities in Thailand and other countries if they want to directly apply or implement the result of this research. This research is also being conducted in a specific time period. The data was collected in the year 2008; therefore it might not be applicable in other

period of time after the year 2008 because the university might develop from the period that this research was conducted.

## **7. Scope of the Research**

### *Population*

The population of this study was the student who was studying in Assumption University. This group of the population will be the student who would be measure the factor to satisfy in Assumption University.

### *Content Issue*

The content of this research was the study on measuring student's satisfaction towards Assumption University which mainly focuses on the Bachelor degree students of the university. The independent variables of this research were tangibles, responsiveness, reliability, course environment, and lecturers' competence which may relate to the student satisfaction on Assumption University.

### *Time Issue*

Study period is from December 22 to December 27, 2008

## **8. Definition of Terms**

Course: In this research, the program of education which lasting for one academic semester.



**Lecturer Competencies:** Lecturer competencies in this research refer to the course of the process which resulted in the ability, skills and knowledge to perform interacting activities.

**Reliability:** In this research, probabilities that the measurement is free from random error and yield consistent results over the period of time.

**Responsiveness:** In this research, how quickly the university responds to its students' requests.

**Satisfaction:** In this research, a measure of how products or services supplied by a university meet or surpass students' level of expectations.

**Student:** A person other than a person in receipt of a training allowance

**Tangibles:** In this research, an appearance of Building, Equipment and Classroom environment in the university.

## **9. Organization of the Remaining Chapters**

**Chapter 1 Introduction:** The backgrounds of the study that led to problem statement and proposed study under constraint limitation.

**Chapter 2 Review of Related Literature:** There is the literature review, the theories that have been applied, other discussion regarding the theories applied and proposed of the conceptual framework.

**Chapter 3 Methodology of the Study:** There is the method that has been applied in the study including the measurement model.

**Chapter 4 Data Analysis and Results:** There are the results from distributed questionnaires and calculated by research application system reveal significant information.

**Chapter 5 Conclusions and Recommendations:** There are the discussion of the analysis results and their implications, states the limitations regarding interpretation of the results, recommendations, and suggestions for future research topics.



## CHAPTER 2

### LITERATURE REVIEW

#### 1. Introduction

Assumption University is the first international university in Thailand. Assumption University is a non-profit institution administered. In 1969, Assumption University was established from the idea of Assumption Commercial College as a higher education institution under the name of Assumption School of Business. In 1972, this commercial was approved by the Ministry of Education to be named as Assumption Business Administration College or ABAC. In May 1975, Assumption Business Administration College or ABAC was accepted to change again by the Ministry of University Affairs and became Assumption University until now. (<http://www.au.edu>).

Labor Omnia Vincit is a common Latin phrase, meaning "Work conquers all". The phrase appears in Virgil's *Georgics*, Book I, in the form *Labor omnia vincit improbus* ("uphill work overcame all things"). The poem was written in support of Augustus Caesar's "Back to the land" policy, aimed at encouraging more Romans to become farmers ([http://en.wikipedia.org/wiki/Labor\\_omnia\\_vincit](http://en.wikipedia.org/wiki/Labor_omnia_vincit)).

Assumption University used English language as the official medium in the University. Five courses are in the Thai language but only for Thai speaking students. Students whose native tongue is not Thai follow the same courses in English (<http://www.au.edu>).

## **2. Theoretical Foundations**

### *Service quality*

The origin of service quality was conceptualized in the service marketing literature centers on perceived quality, defined as a consumer's judgment about the overall excellence or success (Zeithaml, 1987). While the SERVQUAL instrument has been widely used, it has been subject to criticism (Asubonteng *et al.*, 1996; Buttle, 1996). Criticisms include the use of difference scores, dimensionality, applicability and the lack of validity of the model, especially with respect to the dependence or independence of the five main variables (Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992).

The criticism of note to this study is the point that SERVQUAL focuses on the service delivery process and does not address the service-encounter outcomes (Grönroos, 1990; Mangold and Babakus, 1991). It is interesting to note that the developers of SERVQUAL initially suggested that service quality consists of functional (process) and technical (outcome) dimensions (Parasuraman *et al.*, 1985). However, the SERVQUAL instrument does not include any measure of the technical quality dimension. Essentially, technical quality has been neglected in efforts to study and measure service quality.



*Service quality Dimension*

Service quality was known as multiple dimensions (Grönroos, 1990; Parasuraman *et al.*, 1985), there was no general agreement as to the nature or content of the dimensions (Brady and Cronin, 2001). However, a review of the service quality studies to date explicitly shows that European scholars have exerted a great influence on the study of service quality dimensions. That is, the contemporary discussions on the dimensions of service quality have been initiated by European scholars. Lehtinen and Lehtinen (1982) defined service quality in terms of physical quality, interactive quality and corporate (image) quality. Physical quality relates to the tangibles aspects of the service. Interactive quality involves the interactive nature of services and refers to the two-way flow that occurs between the customer and the service provider, or his/her representative, including both automated and animated interactions. Corporate quality refers to the image attributed to a service provider by its current and potential customers, as well as other publics. They also suggest that when compared with the other two quality dimensions, corporate quality tended to be more stable over time.

With the suggestion that the "perceived service quality model" replace the product features of a physical product in the consumption of services, Grönroos (1982) identified two service quality dimensions, the technical aspect ("what" service is provided) and the functional aspect ("how" the service is provided). The customers perceive *what* s/he receives as the outcome of the process in which the resources are used, i.e. the *technical* or outcome quality of the process. But s/he also and often more importantly, perceives *how* the process itself functions, i.e. the *functional* or process quality dimension. For some services the "what" (or technical quality) might be difficult

to evaluate. For example, in health care the service providers' technical competence, as well as the immediate results from treatments, may be difficult for a patient (a customer) to evaluate. Lacking an ability to assess technical quality, consumers rely on other measures of quality attributes associated with the process (the "how") of health care delivery. For health care service, consumers would likely rely on attributes such as reliability and empathy to assess quality.

Grönroos also emphasized the importance of corporate image in the experience of service quality, similar to the idea proposed by Lehtinen and Lehtinen (1982). Customers bring their earlier experiences and overall perceptions of a service firm to each encounter because customers often have continuous contacts with the same service firm (Grönroos, 2001). Therefore, the *image* concept was introduced as yet another important component in the perceived service quality model, so that the dynamic aspect of the service perception process was considered as well. A favorable and well-known image is an asset for any firm because image has an impact on customer perceptions of the communication and operations of the firm in many respects. If a service provider has a positive image in the minds of customers, minor mistakes will be forgiven. If mistakes often occur, however, the image will be damaged. If a provider's image is negative, the impact of any mistake will often be magnified in the consumer's mind. In a word, image can be viewed as a filter in terms of a consumer's perception of quality.

For the Parasuraman *et al.* (1985) suggested that quality evaluations are not made solely on the outcome of service; they also involve evaluations of the service delivery process. While the dimensions are inter-correlated, the primary basis for the dichotomy rests with when the evaluation occurs. For process quality, the evaluation occurs while

the service is being performed. For outcome quality, evaluation happens after service performance and focuses on "what" service is delivered. However, their measurement of service quality (i.e. SERVQUAL) does not explicitly reflect both dimensions, but a functional dimension only. The focus on a functional dimension is one criticism of SERVQUAL (Baker and Lamb, 1993; Mangold and Babakus, 1991; Richard and Allaway, 1993).

#### *Service quality of school and student satisfaction*

Service quality was the difficult to study and measure, the study of the study from the recently two decades (Dale, 2003). It was because the agreement of perceived service quality was a first attitude related but not similar to satisfaction, and the relationship between the two constructs has also been the cause of considerable inside many literature topics. Some researches for example of the previous research from Bitner (1990); Bolton and Drew (1991); Parasuraman, explained that satisfaction was a result of service quality, examples can be taken from the research of Hoisington and Naumann (2003); as cited in the research of Lee, H., Lee, Y., Yoo, D. (2000) as they believed that service quality can lead to the satisfaction. From the previous research of "student's satisfaction with their experience in higher education" explained that service quality was a precursor of satisfaction, concurring with much of the empirical research, such as the research from Cronin and Taylor (1992); Dion, P.A., Javalgi, R. explained that the relationship between satisfaction and quality was important because service provider need to understand the objective of how to deliver satisfaction to their customer then develop a perception service quality to become better which will be benefit result back to the service provider

itself and satisfy more to the customer. The relationship was also given for further importance as one of the aims of the service provider is surely to also engender loyalty in order to better increase the value or at least maintain their market position in the business. Hill (1995) stated that perceived University service quality could be the product of a number of service encounter and evaluate by its students. Such encounters would be with administrators, teaching staff and managers as well as other university employee. Hill (1995) recognized that because of limited resources within university individual, thus an attention to students may be limited. This makes the focusing of resources on the critical areas more significant. However, given the continuing growth of university within the UK competition is becoming even more of an issue since Cuthbert (1996) commented that there was real competition between institutions. The previous research also explained that there should be a specific instrument devised for the evaluation of service quality within university that was beyond the more traditional questionnaires.

When translating this into a manner of university services, this includes an intention to study at a higher level within the same institution, how frequently and recently a student used services, such as the library, catering and IT services, student retention, and lastly the willingness to recommend the institution to friends, neighbors and fellow employees (Blackmore, J., Douglas, A., Barnes, B. 2006).

Service encounters or the service that need to meet the customer as face to face over the counter are recognized within the service quality research field as a key concept (Carlzon, 1989; Dale, 2003; ) and involve direct relationship between service quality and service customer. In some previous research, it also explained and gave the idea that the moment of truth can impacts on the service customer's overall impression and evaluation



of the service (Dale, 2003) and ultimately it was the most appropriate arbiters of service quality. From the previous research into satisfaction, it concerned with identifying the drivers of satisfaction/dissatisfaction, i.e. those critical incidents that are either Satisfiers or Dissatisfies.

According to the previous research study of Cadotte and Turgeon's (1988), this previous research study from compliments and complaints reported by restaurant owners in the USA. They found that a number of variable determinants could be classified as "Satisfiers", "Dissatisfies", "Critical" or "Neutrals". A Dissatisfies is some aspect or feature, the lack of which causes dissatisfaction, but the presence of which does not cause satisfaction. For example, the absence of a car park in a University may cause dissatisfaction but its presence may not necessarily create satisfaction. Conversely, a Satisfier is some aspect or feature the presence of which leads to satisfaction but the absence of which does not lead to dissatisfaction. Critical are those aspects that are both Satisfiers and Dissatisfies, i.e. presence leads to satisfaction and absence leads to dissatisfaction. And, Neutrals are those aspects whose presence does not cause satisfaction and absence does not cause dissatisfaction. From the previous research of Johnston (1995), he explained explain that the determinants of service quality as originally identified by Parasuraman *et al.* (1985) were not necessarily two sides of the same coin and that fixing all the dissatisfies does not necessarily create satisfied customers. This research also found that whilst a determinant may be classified as important to customers of a particular service it may cause satisfaction but not necessarily dissatisfaction. This mirrors Herzberg *et al.*'s (1959) seminal work on satisfaction at work. They found that certain factors tended to lead to job satisfaction while others lead

to lack of dissatisfaction. A key difference between the motivators and the hygiene factors was that whereas motivators brought about satisfaction the hygiene factors only served to prevent dissatisfaction.

Building on earlier work by Johnston and Silvestro (1990) cited in Johnston (1995) explain that 18 determinants of service quality within a Banking organization have now been identified by Johnston (1995) including redefining the original ten determinants and providing additional determinants that would have fallen within the scope of "Tangibles" (physical aspects). These determinants are cleanliness/tidiness, and comfort, and also including its functionality (usefulness). Parasuraman *et al.*'s (1985) SERVQUAL satisfaction/expectation survey instrument initially introduced the ten determinants of service quality and these were later evolved into five dimensions (Parasuraman *et al.*, 1994), these rated dimensions are Reliability, Assurance, Tangibles, Empathy, and Responsiveness. Their instrument has been widely used by organizations generally for measuring customer expectations and perceptions of its service quality. This study uses the original ten determinants together with Johnston's (1995) 18 redefined determinants as the basis for exploring whether the students' experiences within the university environment, i.e. the teaching, learning and assessment (TLA) environment and the support services (Ancillary) environment, could also be identified as specific Satisfiers, Dissatisfies, Critical and Neutrals and indeed whether there are any additional determinants specific to University.

Measuring the student satisfaction with their experience in university was now considered as a common study. Student opinions are sought on their programs of study as well as on the complete range of student activities that constitutes "academic life"

(Blackmore et al., 2006). However, academic life from the student perspective involves students experiencing a number of service offerings ranging from the quality of teaching and learning activities to the quality of on-campus support facilities. This makes the identification of a "one size model fits all" for the definition, monitoring and measurement of student satisfaction.

From the previous of literature service quality and student satisfaction are important issues for universities competing at undergraduate and postgraduate level for home-based and international students. A number of previous research studies Banwet and Datta, 2003; Galloway, 1998) into student perceptions of quality/satisfaction have utilized the SERVQUAL framework. However, Aldridge and Rowley (1998) found it was challenging to design an evaluation instrument that would take into account the diverse nature of the student body and indeed one that would have a high response rate. Using Critical Incident Technique as a research method may overcome the issue of student diversity as it would allow the students to contribute to the agenda rather than responding to questions that may not be relevant to them, as well as using a somewhat less theory approach than the more traditional methods of collecting student satisfaction data.

#### *Measuring service quality*

In terms of measurement methodologies, a review of literature provides plenty of service quality evaluation scales. Some stem from the realization of conceptual models produced to understand the evaluation process (Parasuraman *et al.*, 1985), and others come from empirical analysis and experimentation on different service sectors (Cronin

and Taylor, 1992; Franceschini and Rossetto, 1997; Parasuraman *et al.*, 1988). The most widely used methods applied to measure perceived quality can be characterized as primarily quantitative multi-attribute measurements. Within the attribute-based methods, a great number of variants exist and among these variants, the SERVQUAL and SERVPERF instruments have attracted the greatest attention.

Normally, most of the previous researchers acknowledge about the customers have expectations and these served as standards or reference points to evaluate the performance of an organization. However, the unresolved issues of expectations as a determinant of perceived service quality have resulted in two conflicting measurement paradigms: the disconfirmation paradigm (SERVQUAL) which compares the perceptions of the service received with expectations, and the perception paradigm (SERVPERF) which maintains only the perceptions of service quality. These instruments share the same concept of perceived quality. The main difference between these scales was in the formulation adopted for their calculation, and more concretely, the utilization of expectations and the type of expectations that should be used. Most research studies do not support the five-factor structure of SERVQUAL posited by Parasuraman *et al.* (1988), and administering expectation items is also considered unnecessary (Carman, 1990; Parasuraman *et al.*, 1990; Babakus and Boller, 1992). Cronin and Taylor (1992) were particularly vociferous in their critiques, thus developing their own performance-based measure, dubbed SERVPERF. In fact, the SERVPERF scale is the un-weighted perceptions components of SERVQUAL, which consists of 22 perception items thus excluding any consideration of expectations. In their empirical work in four industries, Cronin and Taylor (1992) found that un-weighted SERVPERF measure (performance-

only) performs better than any other measure of service quality, and that it has greater predictive power (ability to provide an accurate service quality score) than SERVQUAL. They argue that current performance best reflects a customer's perception of service quality, and that expectations are not part of this concept.

A review of service quality literature brings forward diverse arguments in relation to the advantages and disadvantages in the use of these instruments. In general, the arguments make reference to aspects related to the characteristics of these scales was reliability and validity. These results are consistent with earlier research that had compared these methods in the scope of service activities (Cronin and Taylor, 1992; Parasuraman *et al.*, 1994). In fact, the marketing literature appears to offer considerable support for the superiority of simple performance-based measures of service quality (Mazis, M.B., Ahtola, O.T., Klippel, R.E. (1975); Churchill and Surprenant, 1982; Carman, 1990; Bolton and Drew, 1991a, b; Boulding, W., Kalra, A., Staelin, R., Zeithaml, V.A., 1993; Teas, 1993a; Quester *et al.*, 1995).

#### *Measuring service quality in University*

The concept of quality is still unclear from the previous study; there is a lack of consensus to its measurement (Cronin and Taylor, 1992). For instance, companies that claim to have successfully employed quality management programs have reported their achievements in terms of productivity, timeliness, competitive gains, financial improvement, job enrichment and employee well being (Krishnan, R., Shani, A.B., Grant, R.M., Baer, R. (1993)). Moreover, the rapid increase in the growth of the service sector, compared with the decline of the worldwide manufacturing sector, has promoted the need



to assess quality better than with these competing definitions, or the more broadly held view that quality is customer satisfaction. A greater delineation of the construct of quality has been accelerated by the need for organizations to deliver high quality service (e.g., hospitals - patient care). The competition and customer demand for excellence has encouraged many businesses to seek ways to not only make their operations more profitable, but to differentiate their outputs from those of competitors. Unlike the quality of goods, which can be measured objectively (e.g., tolerance, defects), service quality is more difficult to assess.

During the past decade the construct of service quality has attracted a great deal of interest. The inadequacy of procedures for measuring service quality is in part due to the abstract and elusive nature of the construct. Parasuraman, Zeithaml and Berry (1985) initially made a substantial contribution toward the understanding of the concept of service quality when they suggested there were ten dimensions to service quality.

#### *Collecting student feedback*

Rowley (2003b) identified four main reasons for collecting student feedback:

- To provide auditable evidence that students have had the opportunity to pass comment on their courses and that such information is used to bring about improvements
- To encourage student reflection on their learning
- To allow institutions to benchmark and to provide indicators that will contribute to the reputation of the university in the marketplace

- To provide students with an opportunity to express their level of satisfaction with their academic experience.

The last bullet point was the rationale for the main objective of this research study behind the survey undertaken for the particular research.

Keeping customers satisfied is what leads to customer loyalty. From the previous research conducted by Jones and Sasser Jr (1995) into thirty organizations from five different markets found that where customers have choices the link between satisfaction and loyalty is linear; as satisfaction rises, so too does loyalty. However, in markets where competition was intense they found a difference between the loyalty of satisfied and completely satisfied customers. Put simply, if satisfaction is ranked on a 1-5 scale from completely dissatisfied to completely satisfied, the 4's – though satisfied – were six times more likely to defect than the 5's.

Customer loyalty manifests itself in many forms of customer behavior. Jones and Sasser Jr (1995) grouped ways of measuring loyalty into three main categories:

- Intent to re-purchase;
- Primary behavior – organizations have access to information on various transactions at the customer level and can track five categories that show actual customer re-purchasing behavior
- Secondary behavior – e.g. customer referrals, endorsements and spreading the word are all extremely important forms of consumer behavior for an organization.

Translating this into university services, this covers intent to study at a higher level within the same institution, how frequently and recently a student used ancillary

services, such as the library, catering and IT services, and lastly the willingness to recommend the institution to friends, neighbors and employees.

*The reasons of selecting independent variables for this research*

Several papers have utilized five dimensions of SERVQUAL instrument developed by Parasuraman et al., (1988) to measure the service quality in service industry. The framework in this study proposed three dimensions of SERVQUAL instrument which consisted of tangibles, reliability and responsiveness to measure student's satisfaction at Assumption University.

Tangibles, reliability and responsiveness were selected to measure service satisfaction offered by lecturers in Assumption University. Appearance of Assumption's building, landscape or support materials, consistency of performance and willingness to help the student were used as the independents to measure student's satisfaction. Whereas, assurance and empathy dimension were excluded in this study because these two dimensions were inappropriate meaning to apply with university. Assurance factor was use to explain in term of gurantee the product or the quality of the service normally will be use in the service that needs to be in term of long live service between the service provider and customer such as life assurance or hospital. This business was university which was not appropriate to gurantee the knowledge of each student because each student would have the difference background which not appropriate to use this assurance factor to apply with this research study. Next was empathy, this factor was use to measure the perception of the customer to the service that service provider provide to the customer. This research was study the education business which consider focus on the

knowledge not the feeling in the study period. Therefore this empathy factor was not appropriate to apply in this research. Additionally, the lecturer competence and course environment variables were more appropriate and specific dimensions to measure student satisfaction in university.

Hence, the framework in this study purposed tangibles, reliability, responsiveness, lecturer competence and course environment as independents variables. Consequently, this framework presumed that these five independent variables will be related to overall student's satisfaction of service delivery in Assumption University.

### **3. Independent Variable**

#### *Tangibles*

Tangibles in this research was base on the theory of Parasuraman et al., 1985 which explain that tangibles in term of the service was the entire object around the service place that touchable or customer is able to perceive it to measure in satisfaction. In this case study to measure the student's satisfaction the tangibles of the university would be base on the previous study.

According to the previous study of Harvey, L. (1995) explains that the tangibles in the school that can lead to the student was appearance of building, equipment and classroom environment. This resulted come from the topic of tangibles affect the student satisfaction while learning in school. This previous study was tested from 400 students in high school from Newcastle of England. The method to collect the data in this previous was convenience sample with questionnaire. The result of this previous research study was appearance of building, equipment and classroom environment able to affect the

satisfaction of the student in high school therefore from this research the research decide to use it to test in topic of tangibles.

In this research study also adding the tangibles that may relate with the student satisfaction of Assumption University which was IT facilities and supplementary lecture materials e.g. handouts for more variable of the study to the University benefit.

### *Reliability*

Reliability in this research was also base on the theory of Parasuraman et al.,1985 which explain that reliability in term of the service was the consistent of the service that company serve the customer in each period of time which customer will use this reliability to measure the satisfaction. In this case study to measure the student satisfaction the reliability of the university would be base on the previous study.

From the previous study of Devlin, S.J., Dong, H.K., Brown, M. (1993) explained their research topic "teaching skill lead to the better quality of school". From this previous research study was study base on the performance of the teacher in the university of Taiwan national university. The studied was tested on the qualitative test by evaluating in virtual class room in front of five committees. This previous research was tested with 50 teachers from both local and international teachers. The result found that the consistent of teaching skill will come from the experience of the teaching and this teaching skill can affect the better quality of the university. In this case study of the research the research decides to develop this variable to match with this research as consistency of teaching and assessment within and across subject, consistency of teaching



and assessment within and across subject, lecture performing right first time and every time and accuracy in checking examination and grading by lecturer

### *Responsiveness*

Responsiveness in this research was also base on the theory of Parasuraman et al., 1985 which explained that responsiveness in term of the service was willingness or readiness to provide service to the customer toward the quality of the service to measure the satisfaction. In this case study to measure the student satisfaction the responsiveness of the university would be also base on the previous study.

According to the previous study of Sasser, W.E., Olsen, R.P., Wyckoff, D.D. (1978) was study the responsive of the staff in the hotel service business in Manhattan. The method of this previous research was observation by the manager of human recourse on each staff from all of department which including kitchen, cleaning, doorman, reception and etc. The method to observation would be measure from the behavior in the working period from security camera in the hotel. The result of the observation was explained that willing to service was important as the best factor to the customer satisfaction follow by speedy respond to the customer. From this previous of the research can apply to the question in this case study as willingness of lecturer to provide prompt service to the student and responding to student's request quickly may be able to affect the student satisfaction.

In additional of other previous also explained that for the school business the respond of the teacher also including in the responsiveness variable Pariseau, S.E., McDaniel, J.R. (1997). Therefore this research decide to adding one more question which

was returning the assignment, project or feedback quickly according to the previous study of Pariseau, S.E., McDaniel, J.R. (1997).

### *Course environment*

Course was the outline of the planning activity that normally use for some kind of program such as study course, training course, and so on (Parasuraman et al., 1994). In this research study course environment was the surrounding of the study program in Assumption university that student would be met when study in Assumption University.

According to the previous study of Cleary, B.A. (1997) explains from their research study under the topic of "improvement of the course study program" this previous research was using the exploratory research as a research method to classify the criteria of the course in the University to be better for the student. The result of this previous study explains that easy to pass was the first student expect from the course in the University follow by the fairness of grading from the lecturer. This fairness was come from each difference lecturer therefore if student who grade easily that lecturer would be booking at first. The next criteria were cooperating with the student in the study.

In addition, the components that should be included in the teacher effectiveness module in order to generalize the idea Medley, D.M. (1982), from this previous study was tested the relationship between the teachers effective with student learning in the classroom. The method to test this previous study was tested by the questionnaire and analyze with SPSS for window. The amount of respondent in this test was 350 students. The result showed that cooperating of student in the classroom can affect the teacher effective therefore if student had a chance to work together it will help the teacher to

teach more effectively in the classroom. Moreover in the conclusion of this previous research also explain that work experience in the job also can lead to the effective classroom performance and student satisfaction in the classroom. From this previous research, the researcher decided to develop this previous result to become question in the questionnaire as cooperate of student and contain work in the industry. The researcher also developed one more item that was 'give opportunity of creative thinking' to measure the course environment that may relate to the student satisfaction on Assumption University.

#### *Lecturer competence*

Researchers have conducted the research regarding the teaching and learning in various manners and objectives. Therefore, there are many elements that can be categorized in the group of Teaching and Learning. Thus, researcher would like to select only some following elements to study in this research.

The first element to be studied in this research is Teacher Effectiveness. Teacher effectiveness can be defined differently for each individual. Hence, researchers who conducted the research on this matter have proposed their idea differently as well. Some researchers focused on teacher personalities, traits, behaviors, attitudes, values, abilities, competences and many other personal characteristics. Some other researchers are more concerned about the teaching processes which include the factors such as teaching styles, teacher-student interaction and classroom climate, etc. Some other researchers concerned differently on the teaching outcome such as students' academic achievement (Yin and Kwok, 1996).

According to these differences, researcher would like to implement the idea of Medley (1982) on the components that should be included in the teacher effectiveness module in order to generalize the idea of teaching and learning environment. One of the components of 'Teacher Effectiveness' that most relevant to this research is 'Teacher Competence'. Teacher Competence is the set of knowledge, abilities, and beliefs that a teacher possesses and brings to the actual teaching environment on completion of the teacher training program.

Under the lecturer in the University in this case study was the teacher in front of the class in Assumption University. Teacher or Lecturer competencies in this research refer to the course of the process which resulted in the ability, skills and knowledge to perform interacting activities (Banwet and Datta, 2003). In this research this lecturer competence would be use as independent to measure the student satisfaction on Assumption University base on the development of previous study.

According to the previous study of Morrison, J.L. (2003) explained the skill of the lecturer in the Swedish class. The performance or competence of the lecturer should be experienced from their teaching skill and theoretical understand from the text book. This previous study was base on the survey from the student in the class room who was selected from the cumulative GPA above 3.00 which mean that study was pay attention to the class and be able to measure the competence of the lecturer. This previous study was tested from 400 students. The result of the research showed that the experience and knowledge of the lecturer was important to the competence of lecturer to teacher the student. From this previous research study the research decided to develop it to use in questionnaire as 3 questions which were Practical experience of lecturer, Theoretical

knowledge of lecturer and the required subject knowledge and skills to perform the service as three items to test the lecturer competence variable.

#### **4. Dependent Variable**

##### *Customer Satisfaction*

Service quality and satisfaction have traditionally been conceptualized and measured as a cognitive disconfirmation of some comparison standard (Liljander, 1995). Recent research suggests that perceived service quality and satisfaction can be seen as distinct concepts and that perceived service quality toward satisfaction, which is closely related to the customers' behavioral responses (Cronin and Taylor, 1992; Liljander and Strandvik, 1995; Oliver, 1993a; Parasuraman *et al.*, 1994a). Customers' evaluation of service quality can be described as a cognitive process where customers consider the good/bad of different components of the service, either by evaluating the perceived service performance only, or by comparing the service performance with some predetermined standard. Satisfaction, on the other hand, is believed to contain an affective dimension too, without customer responses cannot be fully accounted for. While the comparison processes in disconfirmation judgments require deliberate processing of information, the affective processes are thought to be partly outside the customer's conscious control. Cognitive and affective responses can thus be seen as distinct, and having a separate influence on satisfaction formation (Oliver, 1993a). Although affect has emerged as an important research theme in satisfaction research, where it has also been studied in service contexts (Evrard and Aurier, 1994 ;), its importance has not been fully



recognized in service quality models or in empirical research on service quality and service satisfaction.

### *The impact of student satisfaction*

Agahi, H. (2003) recently reported on the impact of facilities on undergraduate student choice of university. They surveyed a number of universities over two years in order to determine student reasons for selecting a particular university. The average results for the two years were fairly similar the top eight reasons being; it had the right course, availability of computers, quality of library facilities, good teaching reputation, availability of quiet areas, availability of areas for self-study, quality of public transport in the town/city and a friendly attitude towards students. Clearly, student perceptions of a university's facilities are one of the main influences on their decision to enroll.

Coles (2002) found that student satisfaction was decreased when class sizes are larger in earlier cohorts, and when students are taking compulsory core modules rather than optional modules.

The quality of any of the service encounters, or "moments of truth" (Carlzon, 1989) 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.

As Deming (1982) commented, most people form their opinions based on the people that they see, and they are either dissatisfied or delighted, or some other point on the continuum in between. In order to deliver high quality services to students, universities must manage every aspect of the student's interaction with all of their service

offerings and in particular those involving its people. Services are delivered to people by people, and the moments of truth can make or break a university's image (Banwet and Datta, 2003). In order to deliver total student satisfaction, all employees of a university should adhere to the principles of quality customer service, whether they be 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).

In a recent survey conducted with 310 all male Saudi Arabian students attending the King Fahd University of Petroleum and Minerals, Sohail and Shaikh (2004) found that "contact personnel" was the most influencing factor in student evaluation of service quality. However, physical environment, layout, lighting, classrooms, appearance of buildings and grounds and the overall cleanliness also significantly contributed to students' concepts of service quality.

Galloway (1998) studied the role of the faculty administration office in one UK University on student perceptions of service quality. This researcher found that it impacted directly on students and influenced their perceptions of the quality of the whole institution. The office performance also had a direct impact on academic and technical staff within the faculty. These front-line staff in their turn had a direct impact on students, potential students and other clients. The main predictors of quality for students were found to be:

- office has a professional appearance;
- staff dress smartly;
- never too busy to help; and
- opening hours are personally convenient.

Banwet and Datta (2003) believed that satisfied customers were loyal, and that satisfied students were likely to attend another lecture delivered by the same lecturer or another module or course taught by her/him. In their survey of 168 students who attended four lectures delivered by the same lecturer, covering perceived service quality, importance and post-visit intentions, the previous research found that students placed more importance on the outcome of the lecture (knowledge and skills gained, availability of class notes and reading material, coverage and depth of the lecture and teacher's feedback on assessed work) than any other dimension. This supports the findings of Schneider and Bowen (1995) who deduced that the quality of the core service influences the overall quality of the service perception. For universities the core service delivery method is still the lecture. Overall Banwet and Datta (2003) found that student intentions to re-attend or recommend lectures was dependent on their perceptions of quality and the satisfaction they got from attending previous lectures. This was supported by the research of Hill, Y., Lomas, L., MacGregor, J. (2003) who utilized focus groups to determine what quality education meant to students. The most important theme was the quality of the lecturer including classroom delivery, feedback to students during the session and on assignments, and the relationship with students in the classroom.

Research by Tam (2002) to measure the impact of Higher Education on student's academic, social and personal growth at a Hong Kong university found that as a result of their university experience students had changed intellectually, socially, emotionally and culturally. This growth was evidenced as students progressed from one year to another as their university career developed. A number of researchers have suggested that this might indeed be the case (Hill, 1995; O'Neil, 2003) although obtaining valid and reliability data

to support such a stance is difficult. This study aims to determine if there are differences in those aspects of a university service that students consider important, as well as their satisfaction levels, associated with their year/level of study

### 5. Conceptual Framework

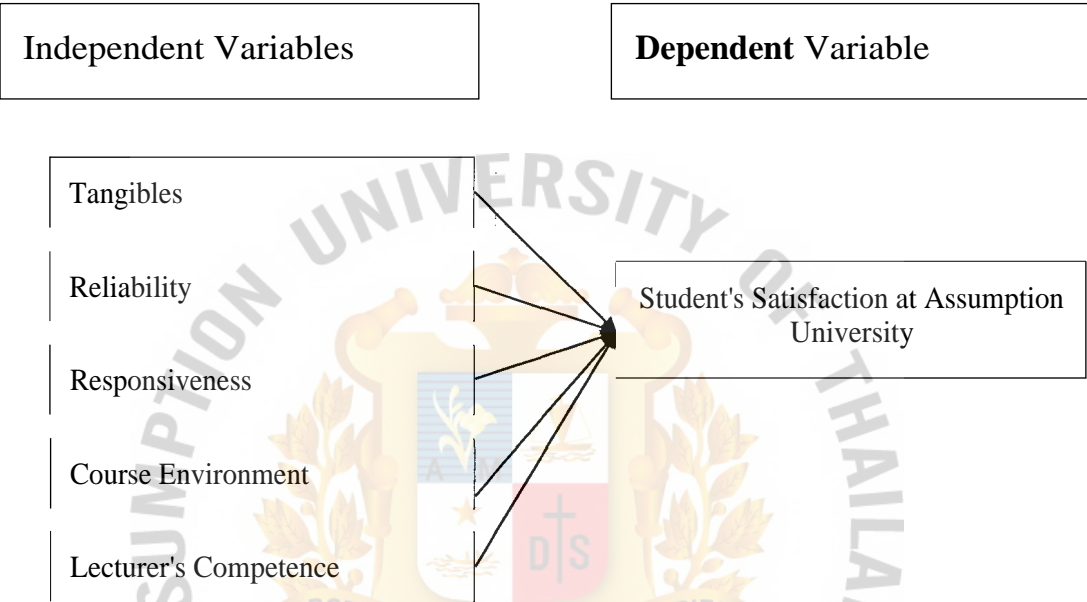


Figure 2.1: Framework of the Study

### 6. Hypothesis

The main objective of this study is to examine the relationship between tangibles, reliability, responsiveness, course environment, lecturer competence toward student satisfaction on Assumption University. According to conceptual framework, the hypotheses for this research are constructed as follows:

H<sub>0</sub>1: There is no relationship between tangibles and student satisfaction on Assumption University.

H<sub>a1</sub>: There is relationship between tangibles and student satisfaction on Assumption University.

H<sub>02</sub>: There is no relationship between reliability and student satisfaction on Assumption University.

H<sub>a2</sub>: There is relationship between reliability and student satisfaction on Assumption University.

H<sub>03</sub>: There is no relationship between responsiveness and student satisfaction on Assumption University.

H<sub>a3</sub>: There is relationship between responsiveness and student satisfaction on Assumption University.

H<sub>04</sub>: There is no relationship between course environment and student satisfaction on Assumption University.

H<sub>a4</sub>: There is relationship between course environment and student satisfaction on Assumption University.

H<sub>05</sub>: There is no relationship between lecturer competence and student satisfaction on Assumption University.

H<sub>a5</sub>: There is relationship between lecturer competence and student satisfaction on Assumption University.



## CHAPTER 3

### RESEARCH METHODOLOGY

#### 1. Introduction

This study aimed to investigate the relationship between tangibles, reliability, responsiveness, lecturer performance, course environment and student's satisfaction at Assumption University. A questionnaire survey would be used to collect quantitative data from the student at Assumption University

A survey was a positivistic methodology whereby a sample of subjects is drawn from a population and studied to make inferences about the population on aspects of the environment of which they are a part (Hussey and Hussey, 1997). The population in this study was the student at Assumption University. In this chapter, the population, sample, sampling procedure were demonstrated. Moreover, the questionnaire development, and statistics method would be proposed in this chapter.

#### 2. General Procedures

A quantitative survey would be used to investigate the relationship among tangibles, reliability, responsiveness dimension, lecture competence, course environment and student' satisfaction at Assumption University. The questionnaire would be use to collect the information from undergraduate students.

### 3. Concept Measurement

Five constructs, tangibles, reliability, responsiveness, lecturer performance, and course environment student satisfaction, would be operationalized in order to test research model.

#### Tangibles, Reliability, Responsiveness dimension

The three dimensions from SERVQUAL Model from Parasuraman et al., (1994) are modified and used to measure the service delivery by the lecturer at Assumption University. The respondents would be asked to rate their satisfaction level by using a 5-point Likert Scale. Scores of student satisfaction would be range from "Very satisfied" (5) to "Very Dissatisfied" (1)

#### Lecturer Performance dimension

Researcher used the idea from the research of Banwet and Datta (2003), and modified it to measure the lecturer of Assumption University. The respondents would be asked to rate their satisfaction level by using a 5-point Likert Scale. Scores of student satisfaction would be range from "Very satisfied" (5) to "Very Dissatisfied" (1)

#### Course environment dimension

Researcher implemented the concept the course environment from the research of Medley, D.M. (1982), and modified it to suit the course environment of Assumption University. The respondents would be asked to rate their satisfaction level by using a 5-

point Likert Scale. Scores of student satisfaction would be range from "Very satisfied" (5) to "Very Dissatisfied" (1)

#### Student satisfaction

The instrument to measure student satisfaction was adapted from the work of Oliver and Swan (1989). All items were measured using 5-point likert scales anchored by "Strongly Agree (5) and strongly Disagree (1)

Table 3.1: Operationalization of Main Variables

Variables	Operational concepts	Operational Components
Tangibles	Physical aspects of the service. (Parasuraman et al.,1994)	<ul style="list-style-type: none"> <li>- Appearance of ABAC building</li> <li>- Equipment used to aid teaching and learning room</li> <li>- Classroom environment</li> <li>- IT facilities</li> <li>- Supplementary lecture materials e.g. handout or textbook</li> <li>- Projects, case studies and assignments</li> <li>- Examination papers</li> </ul>
Reliability	Consistency of performance and dependability (Parasuraman et al., 1994)	<ul style="list-style-type: none"> <li>- Consistency of teaching and assessment within and across subject</li> <li>- Lecture performing right first time and every time</li> <li>- Accuracy in checking examination and grading by lecturer</li> </ul>

Determinants	Description	Items
Responsiveness	Willingness or readiness to provide service (Parasuraman et al., 1994)	<ul style="list-style-type: none"> <li>- Willingness of lecturer to provide prompt service to the student</li> <li>- Responding to student's request quickly</li> <li>- Returning the assignment, project or feedback quickly</li> </ul>
Course Environment	The components that should be included in course environment module in order affect the student satisfaction Medley, D.M. (1982)	<p>Medley, D.M. (1982)</p> <ul style="list-style-type: none"> <li>- Cooperative between student</li> <li>- Contains work in industry</li> <li>- Give opportunity of creative thinking</li> </ul>
Lecturer Competence	The course of the process which result in the ability, skills and knowledge to perform interacting activities (Banwet and Datta, 2003).	<p>Morrison, 2003</p> <ul style="list-style-type: none"> <li>- Practical experience of lecturer</li> <li>- Theoretical knowledge of lecturer</li> <li>- The required subject knowledge and skills to perform the service</li> </ul>
Student Satisfaction	The student perception to the university from variety of categories such as tangibles, responsiveness, reliability, course environment and lecturer competence	<p>Oliver and Swan, 1989</p> <ul style="list-style-type: none"> <li>- Happiness of the student</li> <li>- Satisfaction of selection</li> <li>- Overall Satisfaction</li> </ul>

#### 4. Research Design

This investigation used a survey research approach incorporating quantitative method. A pilot study used a quantitative method to create the construct for measuring the relationship between tangibles, reliability, responsiveness, course environment and lecturer competence of Assumption University toward student's satisfaction. The questionnaire is pre-tested on thirty students before the data collection would be undertaken. Student in this research study was the student who was studying in the Assumption University would be the sample in this study. After finalizing the questionnaire, a questionnaire survey would be conducted with the student in Assumption University who were selected through the convenience sampling. Descriptive research designs were used for the controlled testing. The general procedure was when one or more independent variables were manipulated to determine their effect on a dependent variable.

*There are two steps for data collection*

Pretest study: the research distributed 30 sets of questionnaires to the 30 respondents to check questionnaire understanding. After that the researchers collected their comments and corrected the questionnaire.

Questionnaire survey: after correcting the questionnaire, the 450 questionnaires would distribute to the respondents.



## 5. Respondents and Sampling Procedure

### Population

The population of this study was the student who was studying in Assumption University. This group of the population would be the student who would be measure the factor to satisfy in Assumption University.

The research was conducted among student who was studying in Assumption University. Non-probability sampling would be used in this study, 450 sets questionnaires would be distributed to the respondents of student in Assumption University. The researcher would select the sample based on convenience sampling. The respondents who a convenience available were contacted in a face to face encounter at the University in Suvannaphumi campus that respondent went to study. The respondents were asked to fill the self-administered questionnaire.

### Sample Size

In this study the research used Cochran's sample size formula to calculate the sample size in this study. This formula was appropriate for continuous data (Cochran, 1997) A 5 point-Likert scale was developed to collect the data in this study. In this study the level of statistical significance is at  $\alpha = 0.05$ , with 95% confidence. Based on Cochran (1997) formula, the sample in this study was calculated as follows;

$$\begin{aligned} n_o &= (t)^2 (s) / (d)^2 &= ((1.96)^2 (0.83)^2 / (5)(0.03)^2 \\ & &= 117.62 = 117 \end{aligned}$$

Where;

$n_o$  = Sample size without considering finite population correction factor

$t =$  Value for selected alpha level of 0.25 = 1.96

$s =$  the estimated of in the standard deviation in the population calculated from dividing variance of the scale with the possible number of standard deviation  $(6) = 5i6 = 0.83$

$d =$  an acceptable sample error, which is estimated from the number of primary scale (5) times the acceptable error which is set at .03  $=(5*0.03)= 0.15$

Therefore, the sample of student use in this study is 117 students

#### Sampling Procedure

The researcher would use non-probability sampling in the form of convenience sampling method, which can save energy, time and money. Then the researcher would distribute 450 questionnaires, which more than sample size calculation for avoiding some error to target population to gather real information from the students.

The researcher would collect information from Assumption University student who register undergraduate status. The bachelor degree student who located around Center Point and Plaza at Assumption University Suvarnaphumi Campus would be sampling unit in this study. Researcher would be invited the student who convenience available at Center point, and Plaza to be the sample in this study.

## 6. Pretest

A pilot test was administered to thirty students before data collection. The pilot test was used to determine if the order of appearance of question had any effect on the results. The pilot was also used to measure the reliability and validity of the scales used in the study.

The result of pretest from 30 sets of questionnaires

Categories	Cronbach Alpha
Tangibles	0.8300
Reliability	0.6933
Responsiveness	0.7940
Course environment	0.8753
Lecturer competence	0.7066
Student Satisfaction	0.8020

From the above table, all the variables from the questionnaire show a score over 0.65 on the Cronbach's Alpha column, which means that this questionnaire data was reliability and could be usable to analyze according to Sekaran (1992). Under of this result of Pretest study of 30 respondent it show that all of categories was reliability to study in the fully amount of 450 sets of questionnaire.

## 7. Data Collection

This research was collecting the information from both secondary and primary data. From the secondary data the researcher search the information from varieties of sources such as website data base, magazine, newspaper and previous research. Researcher needed to find information such as the currently information of Assumption University, The variable in this research which was tangibles, reliability, responsiveness,

course environment, and lecturer competence toward student's satisfaction at Assumption university base on external secondary data. The purpose of the secondary data was developed in the literature review and more understand in the topic that researcher was studying. These secondary data also helped the research to save time and cost to use all primary data. But they also had the negative side such as less relevance, and insufficiently accurate. Therefore, before using them, the researcher needed to evaluate and judge their accuracy carefully.

For the primary data of this research, the researcher used questionnaire as a tool to collect the primary data from student who was currently study in Assumption University. The method to collect the data was collected from the volunteers who were studying in Assumption University. The researcher distributes the question area around Assumption University in term of convenience sampling to collect the information from the student directly and wait until they finish the questionnaire. Moreover in term of respond rate, these 450 sets of questionnaire would solve the problem of response return in a lower minimum rate at 117 sets. Collection the primary information source, answer of questionnaire. Then checked the accurate and reliability of the information before analyzing.

## **8. Data Processing and Analysis**

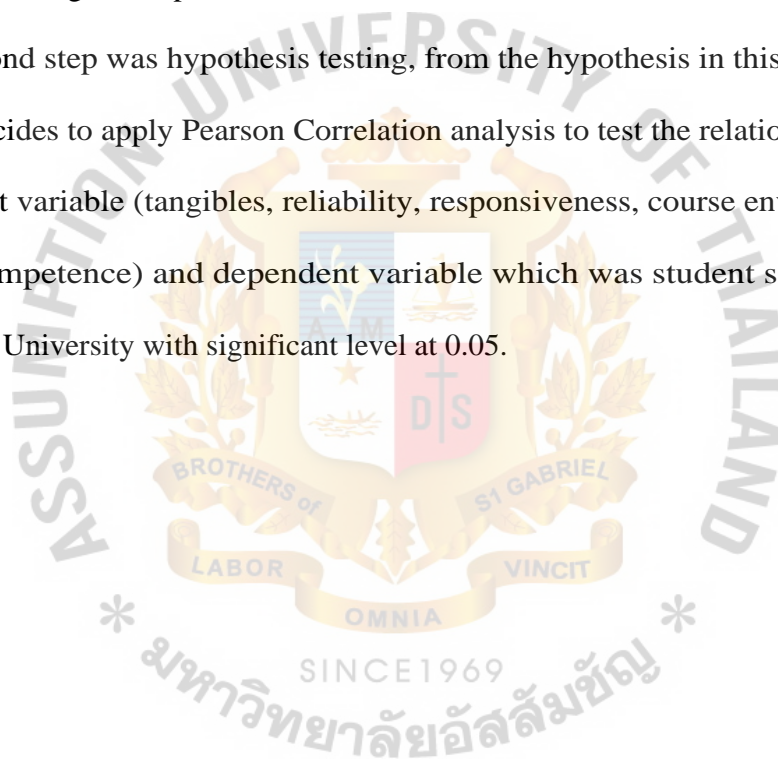
### **Statistical method for data analysis**

The voluntary nature and anonymity of the questionnaires would be completed and returned to the researcher. The quantitative data produced by the survey would be

analyzed using SPSS for Windows. In order to generate the relevant tabulations, descriptive statistics and statistical tests (e.g. Pearson) would be used

The first step was analyzed the descriptive of each independent variable (tangibles, reliability, responsiveness, course environment and lecturer competence) and dependent variable which was student's satisfaction at Assumption University to find mean and standard deviation of each variable. The result would be set in the table for easy understanding and explain.

Second step was hypothesis testing, from the hypothesis in this research. The research decides to apply Pearson Correlation analysis to test the relationship between independent variable (tangibles, reliability, responsiveness, course environment and lecturer competence) and dependent variable which was student satisfaction on Assumption University with significant level at 0.05.





## CHAPTER 4

### DATA ANALYSIS AND RESULT

This chapter is the data analysis which mean will present all of the data into easy form. The analysis will focus on analyze of the data gathered from the sample of 450 respondents. Total of data collection is 322 sets but the researcher used 300 complete sets of questionnaire to analyze. Because other 22 sets of questionnaire had some error soothe research decide to erase it and use only 300 sets in this analysis. The entire respondent is gathering from questionnaire and sampling. The analysis is divided into 2 main categorized. First part is tested of hypothesis by Pearson correlation analysis and finds the mean of each item under the independent and dependent variable. The second part is the Descriptive statistics test of personal information.

#### 1. Test of Hypothesis

This following part will present the information by analysis of data By SPSS. The research will test the relationship between each factor of tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University.

In the study, a Correlation analysis was used to test the relationship between tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University with 95% confidence level at significant value of less than 0.05.

The Pearson Correlation range scale based on Sekaran (2000) categorizes the range into three levels. The weak relationship has the correlation value less than 0.30. The moderate correlation is in the range between 0.30 – 0.70. The strong relationship has the correlation value more than 0.70.

**Table 4.1:** The Pearson Correlation Range

The Pearson Correlation Range	
Range	Pearson Correlation number
Weak relationship	Less than 0.30
Moderate relationship	Between 0.30 to 0.70
Strong relationship	More than 0.70

**Source:** Sekaran, U., (2000), *Research Methods for Business: A Skill-Buildings Approach* 3<sup>rd</sup> Edition, Chichester: John Wiley & Son, Inc.

Hypothesis 1 to 5 stated that there is a relationship between tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University.

Hypothesis1 : There is relationship between tangibles dimension and student satisfaction. If student satisfy with appearance of ABAC building, equipment used to aid teaching and learning room, classroom environment, IT facilities, supplementary lecture materials e.g. handout or textbook, projects, case studies and assignments, examination papers.

The student it will result to increase overall satisfaction of the student therefore hypothesis was supported. It is significant at 0.05 or confident interval at 95%

Table 4.2: Correlations between tangibles and student satisfaction

Correlations			
		tangible	student_satisfaction
tangible	Pearson Correlation	1	.468
	Sig. (2-tailed)		.037
	N	300	300
student_satisfaction	Pearson Correlation	.468	1
	Sig. (2-tailed)	.037	
	N	300	300

The correlation of both factors is significant at 0.037 which less than 0.05 therefore null hypotheses is rejected and accept alternative hypothesis. There is relationship between student satisfaction and tangibles. The Correlation coefficient is 0.468, which means there is moderate correlation between tangibles and student satisfaction towards Assumption University. From the result of correlation was positive relationship therefore if Assumption University can improve the tangibles item it would relate to increases student satisfaction in the University.

Hypothesis2 : There is relationship between reliability dimension and student satisfaction. If student satisfy with consistency of teaching and assessment within and across subject; lecture performing right first time and every time, accuracy in checking examination and grading by lecturer. The student it will result to increase overall satisfaction of the

student therefore hypothesis was supported. It is significant at 0.05 or confident interval at 95%

Table 4.3: Correlations between reliability and student satisfaction

Correlations			
		reliability	student_satisfaction
reliability	Pearson Correlation	1	.305
	Sig. (2-tailed)		.013
	N	300	300
student_satisfaction	Pearson Correlation	.305	1
	Sig. (2-tailed)	.013	
	N	300	300

The correlation of both factors is significant at 0.013 which less than 0.05 therefore null hypotheses is rejected and accept alternative hypothesis. There is relationship between student satisfaction and reliability. The Correlation coefficient is 0.305, which means there is moderate correlation between reliability and student satisfaction towards Assumption University. From the result of correlation was positive relationship therefore if Assumption University cans improve the reliability item it would relate to increases student satisfaction in the University.

Hypothesis3 : There is relationship between responsiveness dimension and student satisfaction. If student satisfy with willingness of lecturer to provide prompt service to the student, responding to student's request quickly, returning the assignment, project or feedback quickly. The student it will

result to increase overall satisfaction of the student therefore hypothesis was supported. It is significant at 0.05 or confident interval at 95%

Table 4.4: Correlations between responsiveness and student satisfaction

Correlations		responsiveness	student_satisfaction
responsiveness	Pearson Correlation	1	.434
	Sig. (2-tailed)		.041
	N	300	300
student_satisfaction	Pearson Correlation	.434	1
	Sig. (2-tailed)	.041	
	N	300	300

The correlation of both factors is significant at 0.041 which less than 0.05 therefore null hypotheses is rejected and accept alternative hypothesis. There is relationship between student satisfaction and responsiveness. The Correlation coefficient is 0.434, which means there is moderate correlation between responsiveness and student satisfaction towards Assumption University. From the result of correlation was positive relationship therefore if Assumption University cans improve the responsiveness item it would relate to increases student satisfaction in the University.

Hypothesis4 : There is relationship between course environment dimension and student satisfaction. If student satisfy with cooperative between students contains work in industry, give opportunity of creative thinking. The student it will



result to increase overall satisfaction of the student therefore hypothesis was supported. It is significant at 0.05 or confident interval at 95%.

Table 4.5: Correlations between course environment and student satisfaction

Correlations		course_ environment	student_ satisfaction
course_environment	Pearson Correlation	1	.252
	Sig. (2-tailed)		.043
	N	300	300
student satisfaction	Pearson Correlation	.252	1
	Sig. (2-tailed)	.043	
	N	300	300

The correlation of both factors is significant at 0.043 which less than 0.05 therefore null hypotheses is rejected and accept alternative hypothesis. There is relationship between student satisfaction and course environment. The Correlation coefficient is 0.252, which means there is weak correlation between course environment and student satisfaction towards Assumption University. From the result of correlation was positive relationship therefore if Assumption University cans improve the course environment item it would relate to increases student satisfaction in the University.

Hypothesis5 : There is relationship between lecturer competence dimension and student satisfaction. If student satisfy with practical experience of lecturer, theoretical knowledge of lecturer, the required subject knowledge and skills to perform the service. The student it will result to increase overall

satisfaction of the student therefore hypothesis was supported. It is significant at 0.05 or confident interval at 95%.

Table 4.6: Correlations between lecturer competence and student satisfaction

Correlations		lecturer_ competence	student_ satisfaction
lecturer_competence	Pearson Correlation	1	.707
	Sig. (2-tailed)		.001
	N	300	300
student_satisfaction	Pearson Correlation	.707	1
	Sig. (2-tailed)	.001	
	N	300	300

The correlation of both factors is significant at 0.001 which less than 0.05 therefore null hypotheses is rejected and accept alternative hypothesis. There is relationship between student satisfaction and lecturer competence. The correlation coefficient is 0.707, which means there is strong correlation between lecturer competence and student satisfaction towards Assumption University. From the result of correlation was positive relationship therefore if Assumption University cans improve the course lecturer competence item it would relate to increases student satisfaction in the University.

Table 4.7: Conclusion of correlation analysis for relationship between tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University

Correlation analysis for relationship between tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University. (N=300)			
		Sig.	Pearson Correlation
Student Satisfaction	Tangibles	0.037	0.468
	Reliability	0.013	0.305
	Responsiveness	0.041	0.434
	Course Environment	0.043	0.252
	Lecturer Competence	0.001	0.707

In conclusion, based on the correlation coefficient analysis, all of between tangibles, reliability, responsiveness, course environment and lecturer competence has a relationship with student satisfaction over the Assumption University. lecturer competence is an only factor has strong relationship with student satisfaction towards Assumption University. Tangibles, reliability and responsiveness have moderate relationship with student satisfaction towards Assumption University. Course environment is an only factor has weak relationship with student satisfaction towards Assumption University.

### Mean Evaluation of Main Variables

The level of arbitrary was explained by Yamane, Taro 1993 showed which how satisfied or the satisfied of the information from the analysis. The range of arbitrary was shown below:

**Table 4.8:** The Arbitrary Level

The Arbitrary Level	
Level	Range
Strongly satisfied	4.20-5.00
Satisfied	3.40-4.19
Neutral	2.60-3.39
Dissatisfied	1.80 —2.59
Strongly dissatisfied	0.00-1.79

**Source:** Yamane, Taro. 1993. Statistics, an Introduction Analysis. 3rd ed., New York: Harper & Row

Range scale of arbitrary level in the strongly satisfied level is between 4.20-5.00. Then 3.40-4.19 as satisfied level, 2.60-3.39 as neutral level, 1.80-2.59 as dissatisfied level and 0.00-1.79 as Strongly dissatisfied level.

**Table 4.9:** Descriptive Statistics of tangibles

Descriptive statistics of tangibles				
	N	Mean	Standard deviation	Arbitrary Level
Appearance of ABAC building	300	4.51	.513	Strongly satisfied
Equipment used to aid teaching and learning room	300	4.02	.562	Satisfied
Classroom environment	300	3.85	.813	Satisfied
IT facilities	300	3.83	.933	Satisfied
Supplementary lecture	300	3.73	.571	Satisfied

materials e.g. handout or textbook				
Projects, case studies and assignments	300	3.32	.536	Neutral
Examination papers	300	3.21	.625	Neutral
Mean neutral	300	3.77		Satisfied

Mean of tangibles factor is 3.77 which is satisfied factor. Under descriptive statistics of the mean value of tangibles, the top three mean value of the item start with the appearance of ABAC building was the highest with the mean of 4.50 and standard deviation of .513 which is the strongly satisfied item follow by equipment used to aid teaching and learning room with the mean of 4.02 and standard deviation of .562 which is the satisfied item and classroom environment with the mean of 3.85 and standard deviation of .813 which is the satisfied item. The least satisfied item are IT facilities with 3.83 and standard deviation of .933 is satisfied item. Next is a supplementary lecture material e.g. handout or textbook with 3.73 and standard deviation of .571 is satisfied item. Then projects, case studies and assignments with 3.32 and standard deviation of .536 was neutral item. The last one was the examination papers with 3.21 in mean and standard deviation at .625 which is neutral item.

**Table4.10:** Descriptive Statistics of reliability

Descriptive statistics of Reliability				
	N	Mean	Standard deviation	Arbitrary Level
Consistency of teaching and assessment within and across	300	3.74	.426	Satisfied



subject				
Lecture performing right first time and every time	300	3.52	.759	Satisfied
Accuracy in checking examination and grading by lecturer	300	3.61	.516	Satisfied
Mean neutral	300	3.62		Satisfied

Mean of reliability factor is 3.62 which is satisfied factor. Under descriptive statistics of the mean value of reliability, the top two mean value of the item start with consistency of teaching and assessment within and across subject with the mean of 3.74 and standard deviation of .426 which is an satisfied item follow by accuracy in checking examination and grading by lecturer with the mean of 3.61 and standard deviation of .516 which is an satisfied item. The last item was lecture performing right first time and every time with the mean of 3.52 and standard deviation of .759 which is a satisfied item.

**Table4.11:** Descriptive Statistics of responsiveness

Descriptive statistics of Responsiveness				
	N	Mean	Standard deviation	Arbitrary Level
Willingness of lecturer to provide service to the student	300	3.95	.826	Satisfied
Responding of lecturer to the student's request	300	3.91	.718	Satisfied
Returning period of assignment or project feedback	300	3.64	.813	Satisfied
Warmth and personal approach with a cheerful attitude as	300	3.53	.554	Satisfied

appropriate of lecturer to the student				
Mean neutral	300	3.76		Satisfied

Mean of responsiveness factor is 3.76 which is satisfied factor. Under descriptive statistics of the mean value of responsiveness, the top two mean value of the item start with willingness of lecturer to provide service to the student with the mean of 3.95 and standard deviation of .826 which is satisfied item follow by responding of lecturer to the student's request with the mean of 3.91 and standard deviation of .718 which is satisfied item. The third one was returning period of assignment or project feedback with mean at 3.64 and standard deviation of .813 which is satisfied item. The last one is warmth and personal approach with a cheerful attitude as appropriate of lecturer to the student with mean at 3.53 and standard deviation of .554 which is satisfied item.

**Table4.12:** Descriptive Statistics of course environment

Descriptive statistics of Course environment				
	N	Mean	Standard deviation	Arbitrary Level
Corporative between student	300	3.76	.461	Satisfied
Contains work in industry	300	3.55	.605	Satisfied
Give opportunity of creative thinking	300	3.72	.716	Satisfied
Mean neutral	300	3.67		Satisfied

Mean of course environment factor is 3.67 which is satisfied factor. Under descriptive statistics of the mean value of course environment, the top two mean value of the item start with corporative between student with the mean of 3.76 and standard

deviation of .461 which is an satisfied item follow by give opportunity of creative thinking with the mean of 3.72 and standard deviation of .716 which is an satisfied item. The last item was contains work in industry with the mean of 3.55 and standard deviation of .605 which is a satisfied item.

**Table4.13:** Descriptive Statistics of Lecturer competence

Descriptive statistics of Lecturer competence				
	N	Mean	Standard deviation	Arbitrary Level
Skill and knowledge of the lecturer	300	4.24	.583	Strongly satisfied
Practical experience of the lecturer	300	4.38	.822	Strongly satisfied
Theoretical knowledge of the lecturer	300	4.46	.518	Strongly satisfied
Mean neutral	300	4.36		Strongly satisfied

Mean of course environment factor is 4.36 which is strongly satisfied factor. Under descriptive statistics of the mean value of lecturer competence, the top two mean value of the item start with theoretical knowledge of the lecturer with the mean of 4.46 and standard deviation of .518 which is strongly satisfied item follow by practical experience of the lecturer with the mean of 4.38 and standard deviation of .822 which is strongly satisfied item. The last item was skill and knowledge of the lecturer with the mean of 4.24 and standard deviation of .583 which is strongly satisfied item.

**Table 4.14:** Summary of the hypothesis results

Hypothesis	Level of Significant	Correlation	Result	Relationship
H <sub>1</sub> : There is no relationship between tangibles and student satisfaction on Assumption University.	0.037	0.468	Reject H <sub>0</sub>	Moderate relationship
H <sub>2</sub> : There is no relationship between reliability and student satisfaction on Assumption University.	0.013	0.305	Reject H <sub>0</sub>	Moderate relationship
H <sub>3</sub> : There is no relationship between responsiveness and student satisfaction on Assumption University.	0.041	0.434	Reject H <sub>0</sub>	Moderate relationship
H <sub>4</sub> : There is no relationship between course environment and student satisfaction on	0.043	0.252	Reject H <sub>0</sub>	Weak relationship

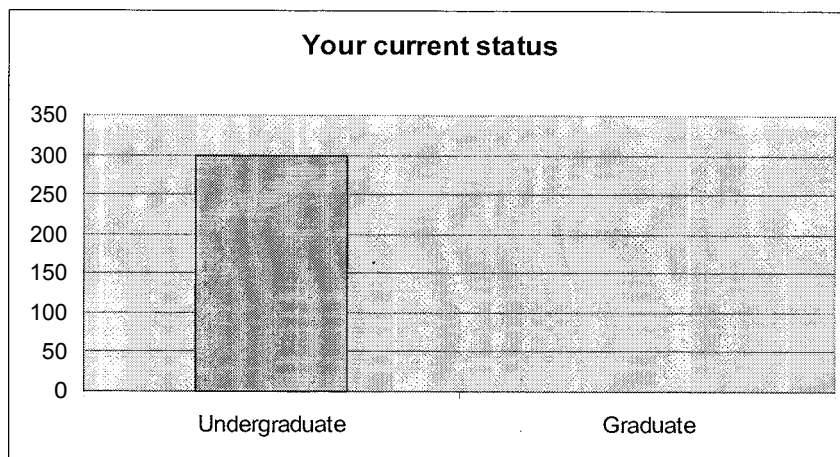
Assumption University.				
<b>H<sub>05</sub>:</b> There is no relationship between lecturer competence and student satisfaction on Assumption University.	0.001	0.707	Reject <b>H<sub>0</sub></b>	Strong relationship

## 2. Descriptive Statistics

This descriptive statistics is used for analyze the data into an easier form of information but all of the information still being not to compare or testing any relationship with the other data. The descriptive statistics will present the data into matrix form such a way as to portray the typical respondent and to reveal the general pattern of responses. The analysis will using normally on counting, calculates the neutral of data and percentage (Zikmund, 1991).

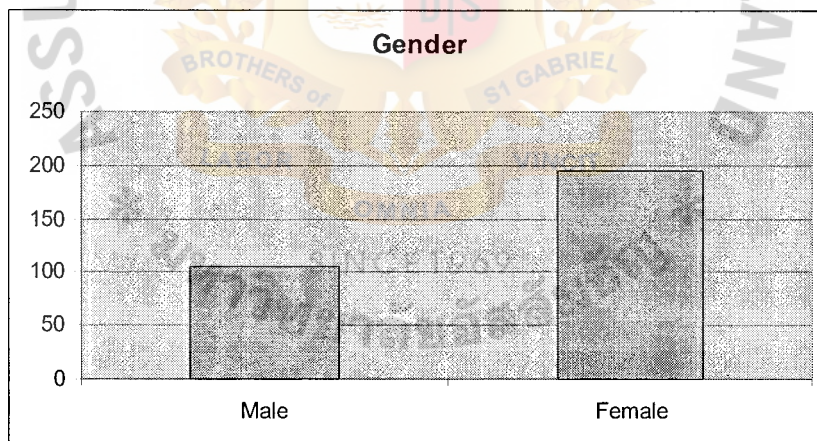
In this first part will interpret the data in the first part of questionnaire which is profile of the respondent. The following are including general data and personal information of respondents.

**Figure4.1:** Your current status



From Figure 4.1 the 100% of total respondent was an undergraduate with 300 respondents.

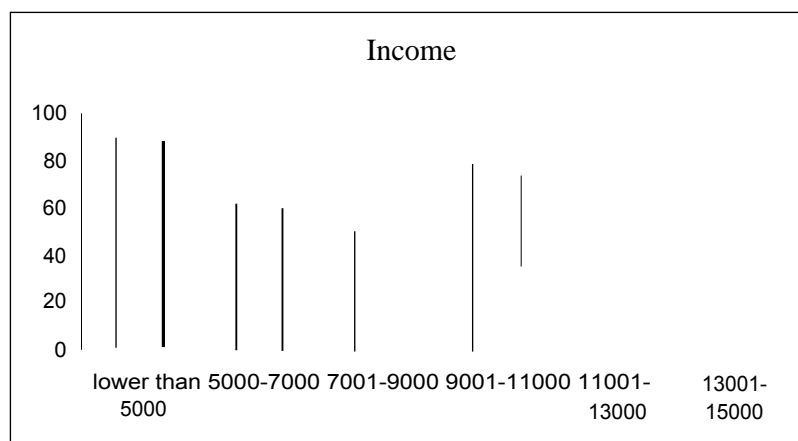
**Figure4.2: Gender**



From Figure 4.2 majority of respondent is female with 195 respondents or 65.3% and the least of respondents is male with 105 respondents or 34.7%.

**Figure4.3: Income**





From Figure 4.3 the majority of the respondent had an income level per month lower than 5000 with 90 respondent or 30% of total respondent. Follow by income 9,001-11,000 baht per month with 75 respondent or 25% of total respondent then income 5,000-5,000 baht per month with 50 respondent or 20% of total respondent. The least three income range per month start with 7,001-9,000 and 11,001-13,001 per month at the same level with 30 respondent or 10% of total respondent. The last income range was 13,001-15,000 baht per month with 15 respondent or 5% of total respondent.

**Table 4.15:** Age

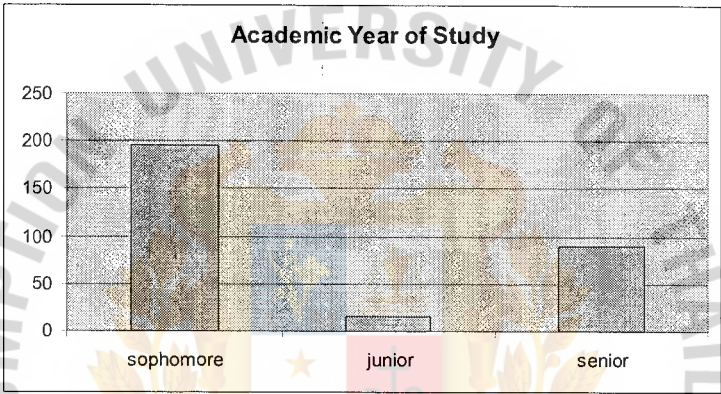
Age of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 17	2	.7	.7	.7
18	46	15.3	15.3	16.0
19	63	21.0	21.0	37.0
20	68	22.7	22.7	59.7
21	65	21.7	21.7	81.3
22	34	11.3	11.3	92.7
23	16	5.3	5.3	98.0
24	4	1.3	1.3	99.3
25	1	.3	.3	99.7
26	1	.3	.3	100.0

Total I	300	100.0	100.0
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The majority of the respondent in this research was belong to 20 years old with 68 respondents or 22.7% follow by 21 years old with 65 respondents or 21.7% and the third position was belong to 19 years old with 63 respondents or 21%.

**Figure4.4:** Academic Year of Study



From table 4.4 the total respondents are divided into 3 academic years. The majority was sophomore with 195 respondents or 65%. Follow by Senior with 90 respondents or 30%. Next was junior with 15 respondents or 5%.

**Table4.16:** The neutral GPAC

Descriptive Statistics (GPAC)			
	N	Mean	Std. Deviation
GPAC	300	2.9230	.50864

The neutral GPAC of respondent in this study was 2.92 as a mean with standard deviation at .5086. From the previous research study explained that GPAC of the

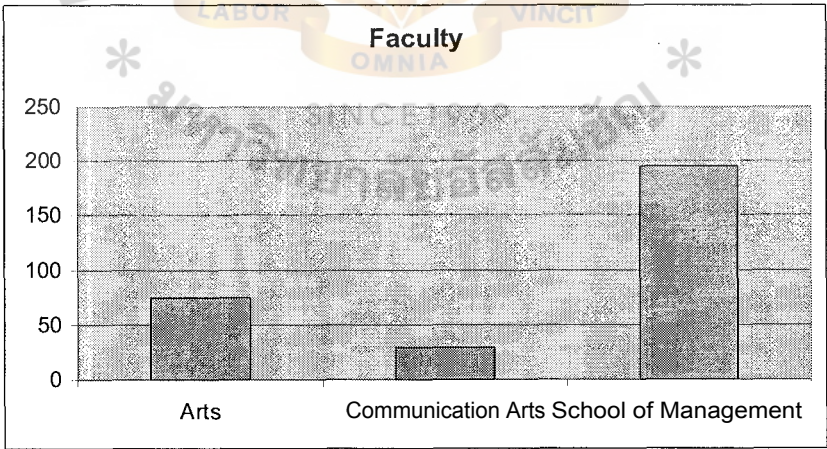
respondent should be 3.00 and above. In this research study GAPC was 2.92 with standard deviation 0.51 which mean its range of GPAC of the respondent also belong to the previous research support therefore this respondent ground be able to be tested in this research study.

**Table4.17:** The neutral of Cumulative credit

Descriptive Statistics (cumulative credit)			
	N	Mean	Std. Deviation
Cumulative Credits	300	75.45	35.402

The neutral of cumulative credit of respondent in this study was 75.45 as a mean with standard deviation at 35.402.

**Figure4.5:** Faculty



From table 4.5 the total respondents are divided into 3 faculties. The majority was school of management with 195 respondents or 65%. Follow by Art with 75 respondents or 25%. The least was communication art with 30 respondents or 10%.

#### Conclusion of Personal information

All of 300 respondents were undergraduate level and most of them were female with income level lower than 5,000 baht per month. The neutral of age of the respondent was around 20 years old and most of them were sophomore in the Assumption University. The neutral GPAC of the student in this study was 2.92 with the neutral cumulative credit at around 75 credits of the study and most of them were belonging in school of management department of Assumption University faculty follow by Art and communication art faculty.

The watermark logo of Assumption University of Thailand is centered on the page. It features a circular emblem with a shield in the center. The shield is divided into four quadrants: top-left (blue with a white star), top-right (white with a blue cross), bottom-left (red with a white star), and bottom-right (white with a blue cross). Above the shield is a crown. Below the shield is a banner with the text "LABOR OMNIA VINCIT". The outer ring of the emblem contains the text "ASSUMPTION UNIVERSITY OF THAILAND" at the top and "มหาวิทยาลัยอัสสัมชัญ" at the bottom, separated by two stars. The year "SINCE 1969" is also visible at the bottom of the emblem.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

This chapter is including 2 types of analyzed from the existing part. The first part is the summary of findings and the summary results of each hypothesis testing. The second part is the explanation of recommendation from the study and suggestions for the further research.

## 1. Summary of the Research Finding

A total of 450 sets of questionnaires were distributed to collect data but only 322 sets were returned. And these research used 300 complete sets were to code and analyze in this research. Because the other 22 sets had some error so they were deleted to code and analyze. The questionnaires were distributed under method to collect the data was collected from the volunteers who were studying in Assumption University. The researcher distributes the question area around Assumption University in term of convenience sampling to collect the information from the student directly and wait until they finish the questionnaire. All the questionnaires were calculated, tabulated and summarized by SPSS program. The results of the survey were separate into 2 parts:

The first part is to study correlation of tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University being analyzed to solve the hypothesis of the research.

The second part was interpreted by descriptive analysis for the profile of the respondent of the respondents.

From descriptive statistic on profile of the respondent of a total 300 questionnaires, all of them were undergraduate student (100%) and most of them were female with 65% with income level lower than 5,000 baht per month (30%). The neutral of age of the respondent was around 20 years old with standard deviation at around 1 year old and most of them were sophomore (65%) in the Assumption University. The neutral GPAC of the student in this study was 2.92 with standard deviation around 0.5. The neutral cumulative credit at around 75 credits of the study and most of them were

belonging in school of management department (65%) of Assumption University faculty follow by Art (25%) and communication art (10%) faculty.

Table 5.1: Summary of the Correlation Analysis

Hypothesis	Level of Significant	Correlation	Result
H1: There is no relationship between tangibles and student satisfaction on Assumption University.	0.037	0.468	Reject $H_0$
H2: There is no relationship between reliability and student satisfaction on Assumption University.	0.013	0.305	Reject $H_0$



H3: There is no relationship between responsiveness and student satisfaction on Assumption University.	0.041	0.434	Reject $H_0$
H4: There is no relationship between course environment and student satisfaction on Assumption University.	0.043	0.252	Reject $H_0$
H5: There is no relationship between lecturer competence and student satisfaction on Assumption University.	0.001	0.707	Reject $H_0$

#### Remarks:

Reject  $H_0$  means significant level less than 0.05, so null hypothesis is rejected and the alternative hypothesis is accepted, which means that there is relationship between independent variable and dependent variable in each hypothesis.

Fail to reject  $H_0$  means significant level more than 0.05, so null hypothesis is failed to reject and the alternative hypothesis is rejected, which means that there is no relationship between independent variable and dependent variable in each hypothesis.

The main objective of this research study is to understand the measuring the relationship between tangibles, reliability, responsiveness, course environment and

lecturer competence with student satisfaction over the Assumption University. The results from the hypothesis testing show that every factor in this study has relationship with the student satisfaction even it is being in a different of relationship. The strong relationship was lecturer competence of Assumption University. Moderate relationships were tangibles, reliability, and responsiveness of Assumption University. Weak relation was course environment of Assumption University.

## 2. Discussion of the Research Finding

This study of the student satisfaction to examine the factors from tangibles, reliability, responsiveness, course environment and lecturer competence with Student satisfaction over the Assumption University. Thus, this study tested five hypothesizes of tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University. The finding revealed that all these hypotheses were supported.

Overall, tangibles, reliability, responsiveness, course environment and lecturer competence variable of Assumption University helped explain the student satisfaction in the University. Moreover, this study also added the specific profile of the respondent to explain the student satisfaction in Assumption University.

### Strong relationship

The result of hypothesis shows that it is a significant positive strong relationship between lecturer competence and student satisfaction. This finding supports the result of Banwet and Datta (2003). Lecturer competencies in the previous research refer to the course of the process which resulted in the ability, skills and knowledge to perform

interacting activities in the classroom. Moreover according to Morrison, J.L. (2003) explain that the skill of the lecturer in the class. The performance or competence of the lecturer should be experienced from their teaching skill and theoretical understand from the text book. From the result of this research study show that the strongly satisfied item that can lead to the student satisfaction in Assumption University was Theoretical knowledge of the lecturer. Follow by Practical experience of the lecturer and Skill and knowledge of the lecturer. Under this research finding the researcher recommend that Assumption University should measure the knowledge of the lecturer bas on the theoretical understanding and develop it to all lecturers under the same standard which mean that every lecturer would know all the same think from the theory. Moreover in order to be the lecturer in the University the lecturer should had an experience from the real world in the working place which relate to the knowledge in the theory. The last one was skill and knowledge of the lecturer. A good lecturer should be skillful to explain and understanding not only on the theory but also under the student mind for understanding how to explain to understand the theory in the classroom of Assumption University.

#### Moderate relationship

The result of hypothesis shows that it was significant positive moderate relationship between tangibles, reliability and responsiveness toward student satisfaction in Assumption University. It indicates that tangibles, reliability and responsiveness was positively correlate with student satisfaction in university. This finding supports the result of Parasuraman et al. (1985). That tangibles, reliability and responsiveness should be considered after lecturer competence factor when understanding to student satisfaction.

According to the previous study of Harvey, L. (1995) explains that the tangibles in the school that can lead to the student was appearance of building, equipment and classroom environment. Under this research study tangibles was significant moderate positive toward student satisfaction in Assumption University. The satisfied item in this factor was Appearance of ABAC building, equipment used to aid teaching and learning room, classroom environment, IT facilities, and supplementary lecture materials e.g. handout or textbook.

Under the reliability was significant moderate positive toward student satisfaction in Assumption University. The satisfied item in this factor was consistency of teaching and assessment within and across subject, lecture performing right first time and every time, and accuracy in checking examination and grading by lecturer.

Under the responsiveness was significant moderate positive toward student satisfaction in Assumption University. The satisfied item in this factor was willingness of lecturer to provide service to the student, responding of lecturer to the student's request, returning period of assignment or project feedback, and warmth and personal approach with a cheerful attitude as appropriate of lecturer to the student.

Under all of significant moderate positive relationship factor with student satisfaction in Assumption University the researcher recommend that. In term of tangibles of the Assumption University was already good in the outside university and in the society. Under the building of ABAC may need to maintain the security that would be gone with each year similar to the equipment and aid teaching in the classroom also need to maintain the quality to make it prompt to the study. Classroom environment may need to focus on the amount of the student in each section should not be too many which will

not convenience and environment which maybe temperature, light and space also need to be concern. The last one was supplement of the lecturer material which was handout and textbook.

In term of reliability of the Assumption University, the highest satisfied of this factor was consistency of teaching and assessment within and across subject which mean that the lecturer in the classroom should to be able to understand their own subject and relating subject to answer the student in the classroom. In order to develop this skill the university should evaluate the lecturer with committee as a test to measure lecturer knowledge from their own subject and across subject. Moreover lecture should perform right first time and every time this mean lecturer should to explain similar to the first time. In order to develop this skill the lecturer need an experience in the classroom to remember their step to explain their student to understand the subject. The last one was Accuracy in checking examination and grading by lecturer. The lecturer should to grade in a standard measurement especially to the essay question. The suitable method to measure this standard was rearranged with other lecturer in a similar subject to grade the student from their class to avoid bias.

The last moderate relationship was responsiveness of the Assumption University. The highest satisfied was willingness of lecturer to provide service to the student. The skill that lecturer or the teacher need to have been willingness to tech therefore this willing can measure by questionnaire to the student in order to evaluate their lecturer in the classroom. Responding of lecturer to the student's request also satisfied in the responsiveness factor, the lecturer should to active to respond the student request normally it was question in the subject. The returning period of assignment or project

feedback also can explain the responsiveness of the lecturer in the classroom. After sending an assignment or report, student would like to know the feedback and lecturer comment from their work therefore the speed of return and gave comment over the assignment was satisfied to the student satisfaction in the University also. The last item under responsiveness was warmth and personal approach with a cheerful attitude as appropriate of lecturer to the student. This cheerful was the support duty of the lecturer to the student to make the closer relationship between lecturer and student.

#### Weak relationship

The result of hypothesis shows that it has a weak relationship between course environment and student satisfaction. This finding supports the result of Parasuraman et al., (1994), from this research the result of the study in this factor show that the highest satisfied factor was corporative between students. In the classroom the friendship was satisfied therefore university should provide the opportunity to let the student work together or share their idea together. Moreover give opportunity of creative thinking also satisfied in the course environment factor because opportunity to create thinking will help the student pound themselves that can affect their ability to present in front of the people in the future. Next was contains work in industry that university should offer the opportunity to the student to work in the study period in the university.

### 3. Conclusion and recommendation

The research is focused to study the relationship between each factors tangibles, reliability, responsiveness, and course environment and lecturer competence with student satisfaction over the Assumption University. Furthermore, the research also considers the



characteristic in topic from personal information of respondents (Gender, Income per month, Age, Academic year, GPAC, and Faculty in Assumption University) in order to test student satisfaction.

The majority in this study was undergraduate level and most of them were female with income level lower than 5,000 baht per month. The neutral of age of the respondent was around 20 years old and most of them were sophomore in the Assumption University. The neutral GPAC of the student in this study was 2.92 and most of them were belonging in school of management department of Assumption University faculty follow by Art and communication art faculty.

#### Strong relationship

After consideration of the analysis of hypothesis it's mean that lecturer competence is the strong relationship factor toward student satisfaction over Assumption University. This research recommends that lecturer should be the person who understand the theory or the textbook as the expert as preparation before the class moreover the perfect knowledge should be able to apply the theory to the real world working and leaving in the society. In order to develop this ability of lecturer it would be the duty of the committee of the faculty to measure the skill of knowledge and understanding from the theory. The method to measure was the similar to the teaching in the normally class but in change from student to be the committee to listen the lecturer. The result of evaluation will be use as a guideline to develop the lecturer skill.

#### Moderate relationship

Tangibles, reliability, responsiveness are moderate relationship factor toward student satisfaction over Assumption University. The researcher recommends that, Under

the tangibles factor the maintaining process was the satisfied to the university because all of their tangibles such as building, equipment, and classroom facility need to maintain the quality to prompt for the student to use. The supplement material for the classroom such as hand out and textbook also need to available in variety format to help the student to select the material to use in the classroom that match with their characteristic

Under the reliability factor the recommendation of the researcher of this research was start with skill to explain the theory to the student. This skill to explain for understanding was not easy therefore each lecturer need to be prepare and practice to explain their own understand to the other person to the similar understanding. Moreover the skill to explain similar as the first time also satisfied because it will show the standard of the lecturer to explain their knowledge. The last one was the standard to grade the student the suitable method was exchange with other lecturer in the similar subject to avoid the bias from some student in the classroom.

From the responsiveness factor also relate to the student satisfaction in moderate relationship. According to the result of the research study the researcher recommends that lecturer need to be willing to teach and explain their knowledge to the student. The method to evaluate the willingness was questionnaire by let the student in the classroom of each lecturer to evaluate their lecturer behavior in the classroom. The result will be use as a guideline to develop the lecturer skill. The responsiveness of the lecturer was satisfied to the student satisfaction therefore it should be focus to be developed for more satisfaction to Assumption University.

Weak relationship

This weak relationship could be used as supportive idea to improve student satisfaction over Assumption University. The weak relationship factor was course environment. The researcher recommend this course environment that should offer the opportunity to let the student know and work together in the classroom because human can not live alone therefore in the classroom should provide situation or activity to let them know each others. Moreover university also needs to offer the opportunity for the student to learn from the real working place by offer their student to practice with well-known company in the society.

#### **4. Implication for Practice**

As the results from research finding, it can help Assumption University to develop themselves for more satisfaction from their student in the university.

The results of this study can be applied to Assumption University for meet the student satisfaction. This study result focuses on the fact that the lecturer competence was the strong relationship factor to student satisfaction. Therefore, Assumption University should to develop their lecturer to understand clearly over the theory before explain to the student and lecturer also need to have and experience to apply the theory to the real working to use it as case study for the student in the classroom. Moreover the moderating relationship also needs to be consideration. In term of tangibles of Assumption University that had a lot of building and tools for the student therefore all of these facilities need to be maintaining for the prompt in the study period from both lecturer and student and university also need to offer variety of supplementary lecture materials not only textbook in the bookstore that quite expensive to some student such as PowerPoint lecture or

summary from the text book. In term of reliability it will come from the skill of the lecturer to teach in the class therefore all of lecturers should be evaluate from committee to test their skill and use that comment as a guideline to develop themselves for next time committee evaluation. Responsiveness of the university was also come from the lecturer. Each lecturer should had a willingness to teach therefore to evaluate this willingness Assumption University can use questionnaire to let the student evaluate their lecturer behavior in the classroom. Moreover the responsiveness also refers to the active to return or comment student work which needs to be base on fairness and proper time period. Under the course environment which was weak relationship toward student satisfaction in the university. The researcher commend that university should offer the opportunity to let the student know and work together in the classroom. Moreover university also needs to offer the opportunity for the student to learn from the real working place by offer their student to practice with well-known company in the society.

The information show that majority student of the respondent was female, income lower than 5,000 and neutral age was around 20 years old which was sophomore and belong to school of management in Assumption University.

An overall finding of this study is how tangibles, reliability, responsiveness, course environment and lecturer competence with student satisfaction over the Assumption University. If combined with the findings of student profile, tangibles, reliability, responsiveness, course environment and lecturer competence, Assumption University will understand the how to evaluate and develop in order to improve their student satisfaction while study in the university.

## 5. Suggestion for Further Research

This research is focus on the specific university which was Assumption University therefore it maybe not properly to develop this research to the other university. This research could be used as a guideline to the next researcher to use as previous study and develop for broader proper to other university in Thailand and other country. This further will help other university develop their university to attractive student to elect to study and more satisfaction in the university.

Next is the factor of study in this research. This research focus on the perception of customer by applies from tangibles, reliability, responsiveness, course environment and lecturer competence of University in order to understand student satisfaction. This study may not include all of student preference in the university. For next further research may apply with consumer behavior or theory of Maslow to understand to the deeper satisfaction of the student in the university.



## Questionnaire

### Factors Relating Student of Assumption University

This questionnaire has been developed by Assumption University Master of Science in Management student to be part of Individual Research subject. All information will be treated with high confidentiality and used for educational purposes only. Please complete this questionnaire by marking (X) in the spaces provided according to your fact and opinion.

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#### Part I: Profile of Respondents.

*Directions:* This part seeks information regarding your personal background. For each question, please indicate (V) the response that applies to you.

1 Your Current status

☐ Undergraduate

☐ Graduate (Finished the question)

2 Gender

☐ Male

☐ Female

3 Income per month

☐ Lower than 5000

☐ 5,000-7,000 Baht

☐ 7,001-9,000 Baht

☐ 9,001-11,000 Baht

☐ 11,001-13,000

☐ 13,001-15,000 Baht

☐ Higher than 15,000 Baht

4 Age..... years

Nationality

5 Academic Year of Study

☐ Freshman

☐ Sophomore

☐ Junior

☐ Senior

6 GPAC..... Cumulative Credits..... credits

7 Faculty

☐ School of Management (BBA and Business Economics)

☐ School of Arts



O School of Communication Arts

☐ School of Law

E School of Engineering

E School of Science and Technology

O School of Nursing Science

☐ School of Architecture

O School of Music

E School of Biotechnology

**Part II: Satisfaction of Assumption University Services**

This section asks your opinion of how you satisfy each attribute of services provided by Assumption University. Please indicate the extent to which you think that it is the performance of service provided by Assumption University

Please indicate (V) your satisfaction level toward Assumption University Services.

Please rated satisfaction level of the statements below on the following dimensions:	Satisfaction Level				
	Strongly Satisfied	Satisfied	Neutral	Dissatisfied	Strongly Dissatisfied
1 Tangibles					
1.1 Appearance of ABAC building	5	4	3	2	1
1.2. Equipment used to aid teaching and learning room	5	4	3	2	1
1.3 Classroom environment	5	4	3	2	1
1.4 IT facilities	5	4	3	2	1
1.5 Supplementary lecture materials e.g. handout or textbook	5	4	3	2	1
1.6 Projects, case studies and assignments	5	4	3	2	1
1.7 Examination papers	5	4	3	2	1
2 Reliability					
2.1 Consistency of teaching and assessment within and across subject	5	4	3	2	1
2.2 Lecture performing right first time and every time	5	4	3	2	1
2.3 Accuracy in checking examination and grading by lecturer	5	4	3	2	1
3 Responsiveness					
3.1 Willingness of lecturer to provide service to the student	5	4	3	2	1

3.2 Responding of lecturer to the student's request	5	4	3	2	1
3.3 Returning period of assignment or project feedback	5	4	3	2	1
3.4 Warmth and personal approach with a cheerful attitude as appropriate of lecturer to the student	5	4	3	2	1
4 Course Environment					
4.1 Corporative between student	5	4	3	• 2	1
4.2 Contains work in industry	5	4	3	2	1
4.3 Give opportunity of creative thinking	5	4	3	2	1
5 Lecturer Competence					
5.1 Skill and knowledge of the lecturer	5	4	3	2	1
5.2 Practical experience of the lecturer	5	4	3	2	1
5.3 Theoretical knowledge of the lecturer	5	4	3	2	

Please indicate (J) your satisfaction level toward Assumption University

Please rated degree of agreement of the statements below on the following:	Degree of Agreement				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
6 Satisfaction					
6.1 I am happy that I study at Assumption University	5	4	3	2	1
6.2 I am satisfied with my decision to study at Assumption University	5	4	3	2	1
6.3 Overall, I am satisfied with Assumption University	5	4	3	2	1

Thank you very much for your cooperation

## Reference

- Aldridge, S., Rowley, J. (1998), "Measuring customer satisfaction in higher education", *Quality Assurance in Education*, Vol. 6 No.4, pp.197-204.
- Agahi, H. (2003), "the impact of facilities on undergraduate student choice of university", *Work Study*, Vol. 12 No.5, pp.212-33.
- Angur, M.G. (1998), "Service quality measurements in a developing economy: SERVQUAL versus SERVPERF", *Journal of Customer Service in Marketing Management*, Vol. 4 No.3, pp.47-60.
- Asubonteng, P., McCleary, K.J., Swan, J.E. (1996), "SERVQUAL revisited: a critical review of service quality", *Journal of Services Marketing*, Vol. 10 No.6, pp.62-81.
- Babakus, E., Boller, G.W. (1992), "An empirical assessment of the SERVQUAL scale", *Journal of Business Research*, Vol. 24 pp.253-68.
- Baker, J.A., Lamb, C.W. Jr (1993), "Measuring architectural design service quality", *Journal of Professional Services Marketing*, Vol. 10 No.1, pp.89-106.
- Banwet, D.K., Datta, B. (2003), "A study of the effect of perceived lecture quality on post-lecture intentions", *Work Study*, Vol. 52 No.5, pp.234-43.
- Bitner, M.J. (1990), "Evaluating service encounters: the effects of physical surroundings and employee responses", *Journal of Marketing*, Vol. 54 No. April, pp.69-82.
- Blackmore, J., Douglas, A., Barnes, B. (2006), "Measuring student satisfaction at a UK university", *Journal for Quality Assurance in Education*, Vol. 14 No.3, pp.251-67.

- Bolton, R.N., Drew, J.H. (1991), "A multistage model of customers' assessments of service quality and value", *Journal of Consumer Research*, Vol. 17 No. March, pp.375-84.
- Boulding, W., Kalra, A., Staelin, R., Zeithaml, V.A. (1993), "A dynamic process model of service quality: from expectations to behavioural intentions", *Journal of Marketing Research*, Vol. 30 pp.7-27.
- Brady, M.K., Cronin, J.J. Jr (2001), "Some new thoughts on conceptualizing perceived service quality: a hierarchical approach", *Journal of Marketing*, Vol. 65 pp.34-49.
- Buttle, F. (1996), "SERVQUAL: review, critique, research agenda", *European Journal of Marketing*, Vol. 30 No.1, pp.8-32.
- Cadotte, E.R., Turgeon, N. (1988), "Dissatisfiers and satisfiers: suggestions for consumer complaints and compliments", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, Vol. 1 pp.74-9.
- Carman, J.M. (1990), "Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions", *Journal of Retailing*, Vol. 66 pp.33-55.
- Carlzon, J. (1989), *Moments of Truth*, reprint ed., HarperCollins, New York, NY, .
- Cleary, B.A. (1997), "Improving classroom learning with quality", *Proceedings of the 50th ASQC Quality Congress*, Chicago, IL, pp.1-11
- Churchill, G.A., Surprenant, C. (1982), "An investigation into the determinants of customer satisfaction", *Journal of Marketing Research*, Vol. 19 pp.491-504.
- Cochran, W.G. (1997), "Sampling Techniques" (3 ed.) New York; John Wiley and sons.

- Coles, C. (2002), "Variability of student ratings of accounting teaching: evidence from a Scottish business school", *International Journal of Management Education*, Vol. 2 No.2, pp.30-9.
- Cronin, J.J. Jr, Taylor, S.A. (1992), "Measuring service quality: a re-examination and extension", *Journal of Marketing*, Vol. 56 No.July, pp.55-68.
- Cuthbert, P.F. (1996), "Managing service quality in HE: is SERVQUAL the answer? Part 1", *Managing Service Quality*, Vol. 6 No.2, pp.11-16.
- Dale, B.G. (2003), *Managing Quality*, 4th ed., Blackwell Publishing, Oxford, .
- Deming, W.E. (1982), *Out of the Crisis*, Massachusetts Institute of Technology, Cambridge, MA,
- Devlin, S.J., Dong, H.K., Brown, M. (1993), "Selecting a scale for measuring quality", *Marketing Research*, Vol. 5 No.3, pp.12-17..
- Dion, P.A., Javalgi, R., Dilorenzo-Aiss, J. (1998), "An empirical assessment of the Zeithaml, Berry and Parasuraman Service Expectations Model", *The Service Industries Journal*, Vol. 18 No.4, pp.66-86.
- Evrard, Y., Aurier, P. (1994), "The influence of emotions on satisfaction with movie consumption", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 7 pp.119-125.
- Franceschini, F., Rossetto, S. (1997), "On-line service quality control: the 'Qualitometro' method", *De Qualitac*, Vol. 6 No.1, pp.43-57.
- Galloway, L. (1998), "Quality perceptions of internal and external customers: a case study in educational administration", *The TQM Magazine*, Vol. 10 No.1, pp.20-6.

- Gold, E. (2001), Customer Service: A Key Unifying Force for Today's Campus, Netresults, National Association of Student Personnel Administrators, 22 January, available at: [www.naspa.org/netresults](http://www.naspa.org/netresults), cited in Banwet, D.K. and Datta, B. (2003), "A study of the effect of perceived lecture quality on post-lecture intentions", *Work Study*, Vol. 52 No 5, pp. 234-43, .
- Grönroos, C. (1982), *Strategic Management and Marketing in Service Sector*, Marketing Science Institute, Cambridge, MA, .
- Grönroos, C. (1990), *Service Management and Marketing*, Lexington Books, Lexington, MA, .
- Grönroos, C. (2001), "The perceived service quality concept – a mistake?", *Managing Service Quality*, Vol. 11 No.3, pp.150-2.
- Harvey, L. (1995), "Student aatisfaction", *The New Review of Academic Librarianship*, Vol. 1 pp.161-73.
- Herzberg, F., Mausner, B., Snyderman, B.B. (1959), *Motivation to Work*, Wiley, New York, NY, .
- Hill, F.M. (1995), "Managing service quality in higher education: the role of the student as primary consumer", *Quality Assurance in Education*, Vol. 3 No.3, pp.10-21.
- Hill, Y., Lomas, L., MacGregor, J. (2003), "Students' perceptions of quality in higher education", *Quality Assurance in Education*, Vol. 11 No.1, pp.15-20.
- Hoisington, S., Naumann, E. (2003), "The loyalty elephant", *Quality Progress*, No.February, pp.33 -41.
- Hussey, J., and Hussey, R. (1997). *Business Research : A practical guide for undergraduate and postgraduate students*. New York, PALGRAVE.



- Johnston, R (1995), "The determinants of service quality: satisfiers and dissatisfies",  
International Journal of Service Industry Management, Vol. 6 no.5, pp 53-71
- Johnston, R., Silvestro, R. (1990), "The determinants of service quality – a customer  
based approach", *The Proceedings of the Decision Science Institute Conference*,  
San Diego, CA, November, .
- Jones, T., Sasser, W.E. Jr (1995), "Why satisfied customers defect", *Harvard Business  
Review*, No .November-December, pp.88-99.
- Krishnan, R., Shani, A.B., Grant, R.M., Baer, R. (1993), "In search of quality  
improvement: problems of design and implementation", *Academy of Management  
Executive*, Vol. 7.
- Lee, H., Lee, Y., Yoo, D. (2000), "The determinants of perceived service quality and its  
relationship with satisfaction", *Journal of Services Marketing*, Vol. 14 No.3,  
pp.217-31.
- Lehtinen, J.R., lehtinen, U. (1982), "Service quality: a study of quality dimensions",  
unpublished Working Paper, Service Management Institute, Helsinki,
- Liljander, V. (1995), *Comparison Standards in Perceived Service Quality*,
- Liljander, V., Strandvik, T. (1995), "The nature of customer relationships in services", in  
Swartz, T.A., Bowen, D.E., Brown, S.W. (Eds), *Advances in Services Marketing  
and Management*, Vol. 4.
- Low, L. (2000), Are College Students Satisfied? A National Analysis of Changing  
Expectations, Noel-Levitz, Iowa City, IA, cited in Banwet, D.K. and Datta, B.  
(2003), "Study of the effect of perceived lecture quality on post-lecture  
intentions", *Work Study*, Vol 52 No 5, pp. 234-43, .

- Mangold, G.W., Babakus, E. (1991), "Service quality: the front-stage perspective vs the back-stage perspective", *Journal of Services Marketing*, Vol. 5 No.4, pp.59-70.
- Mazis, M.B., Ahtola, O.T., Klippel, R.E. (1975), "A comparison of four multi-attribute models in the prediction of consumer attitudes", *Journal of Consumer Research*, Vol. 2 pp.38-52.
- Medley, D.M. (1982), "*Teacher Effectiveness*", in Mitzel, H.E. (Ed.), *Encyclopeida of Educational Research*, 5<sup>th</sup> ed., the Free Press, New York
- Morrison, J.L. (2003), "US higher education in transition", *On the Horizon*, Vol. 11 No.1, pp.6-10.
- Oliver, R.L. (1993a), "A conceptual model of service quality and service satisfaction: compatible goals, different concepts", in Swartz, A.T., Bowen, D.E., Brown, S.W. (Eds), *Advances in Services Marketing Management*, .
- Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, Vol. 49 pp.41-50.
- Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1988), "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, Vol. 64 No.1, pp.12-24.
- Parasuraman, A., Zeithaml, V.A., Berry, L.L. (1994a), "Reassessment of expectations as a comparison standard in measuring service quality: implications for future research", *Journal of Marketing*, Vol. 58 pp.111-24.

- Pariseau, S.E., McDaniel, J.R. (1997), "Assessing service quality in business schools", *International Journal of Quality and Reliability Management*, Vol. 14 No.3, pp.204-18.
- Quester, P., Wilkinson, J.W., Romaniuk, S. (1995), "A test of four service quality measurement scales: the case of the Australian advertising industry", Working Paper No. 39, Centre de Recherche et d'Etudes Appliquées, Group ESC Nantes Atlantique, Graduate School of Management, Nantes, .
- ® Ministry of education Thailand 2008, "Legal of education in Thailand" ([http://www.moe.go.th/data\\_stat/](http://www.moe.go.th/data_stat/) accessed 18 December 2008)
- ® Copyright 2007 ACSP All Right Reserved 2008, "Study plan" (<http://www.acsp.ac.th/> accessed 18 December 2008)
- Richard, M.D., Allaway, A.W. (1993), "Service quality attributes and choice behavior", *Journal of Services Marketing*, Vol. 7 No.1, pp.59-68.
- Rowley, J. (2003b), "Designing student feedback questionnaires", *Quality Assurance in Education*, Vol. 11 No.3, pp.142-9.
- Sasser, W.E., Olsen, R.P., Wyckoff, D.D. (1978), *Management of Service Operations*, Allyn and Bacon, Boston, MA, .
- Sekaran, U., (2000). *Research Methods for Business: A Skill-Buildings Approach* 3<sup>rd</sup> Edition. Chichester: John Wiley & Son, Inc.
- Schneider, B., Bowen, D.E. (1995), *Winning the Service Game*, Harvard Business School Press, Boston, MA, .

Sohail, M.S., Shaikh, N.M. (2004), "Quest for excellence in business education: a study of student impressions of service quality", *The International Journal of Educational Management*, Vol. 18 No.1, pp.58-65.

Tam, M. (2002), "Measuring the effect of higher education on university students", *Quality Assurance in Education*, Vol. 10 No.4, pp.223-8

Teas, R.K. (1993a), "Expectations, performance evaluation, and consumers' perceptions of quality", *Journal of Marketing*, Vol. 57 No.4, pp.18-34.

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Yin C.C. and Kwok, T.T. (1996), "Total Teacher Effectiveness: New Conception and Improvement", *International Journal of Educational Management*, MCB University Press, Edinburgh

Zeithaml, V.A. (1987), *Defining and Relating Prices, Perceived Quality and Perceived Value*, Marketing Science Institute, Cambridge, MA, .



