A FACTOR ANALYSIS OF STUDENT' PERCEIVED SERVICE QUALITY IN HIGHER EDUCATION

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Abstract

The objective of this research was to identify the indicators and components of the student satisfaction of service quality, and to examine the appropriate integration of indicators through a confirmatory factor analysis of the theoretical factors of student satisfaction toward service quality in the Faculty of Management Science (FMS) at Ubon Ratchathani University, with an empirical data set consisting of six components. A questionnaire was used for collecting the data from a sample of 499 senior bachelor's degree students, studying business in the Faculty of Management Science at Ubon Ratchathani University. The reliability of the questionnaire was found to be 0.94. Descriptive statistics and the CFA second order model from MPLUS were used in this study. The results showed that the observed set of data for the student satisfaction of service quality in FMS fit the factor theory model. The most significant factor was the service quality of instruction. All correlations among the six main factors for the student satisfaction of service quality were statistically significant. The items of the 6 factors had validity values ranging from high to very high. The highest factor loading to the smallest factor loading values for the student satisfaction of service quality were found to be for instruction, measurement and assessment, qualitative aspects of the lecturers, preparation for professional practice, program content, and supervision respectively; thus the service quality of supervision in FMS must be improved before other components. In the students' view, the advisor must carry out more "follow up" actions for students, and find the best method to solve students' problems. The outcomes of the study lead to implications for improving the service quality in the Faculty of Management Science, strategic planning for professional practice, and for future research.

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INTRODUCTION

Higher education institutions have shown a greater focus on student satisfaction due to its importance as a measure of school effectiveness in relation to a set of student expectations. The ability to determine and understand the factors affecting student satisfaction can enhance an institution's competitive advantage in the education business market. Over the past decade, the realization that they are part of the service industry, has been increasing among higher education institutions. Educational quality is an important factor that is considered to fascinate prospective students and help to establish a memory of the relevant institution in the minds of students aiming to achieve higher education. Educational institutions and their administrators should be willing to provide a quality service which is desired by both prospective and registered students, in order to progressively and effectively improve students' knowledge, expectations, and academic preferences in the educational environment (Palacio, Menesses, and Perez, 2002). Ubon Ratchathani University in the Mekong Sub-Region of Thailand (close to Laos and Cambodia) aims to provide educational opportunities for the people of North-East Thailand, specifically servicing the provinces of Amnat Charoen, Mukdahan, Nakhon Phanom, Sakon Nakhon, Si Sa Ket, Yasothon, and Ubon Ratchathani. Moreover, the educational administration of the Faculty of Management Science aims to create graduates who demonstrate moral consciousness and responsibility, who are able to continuously self-develop and keep pace with changes in the business world, adhering to the self-sufficiency economic philosophy of Thailand.

The business administration school has an objective to prepare students to be good workers, equipped with the necessary knowledge for effectively undertaking jobs in business management, both in the government sector, and international organizations. Business administration programs must consider new ideas and continuously develop their quality and excellence, as the quality of the university, faculty and program services, and the performance evaluation process for these services, are some of the basic elements of a quality higher education system (Bhatia, 2009). In improving the quality and effectiveness of investment in education, the evaluation of the work of business administration programs and institutions is an important role played by quality assurance mechanisms, in helping education and training institutions, and policymakers, to meet today's challenges and to develop a quality higher education system (European Commission, 2015)

Due to the increased pressure of competition in the education service industry, student satisfaction has recently gained a greater focus in higher education institutions. Student satisfaction is an important measure of a school's effectiveness in relation to a set of student expectations (Sahin, 2014). Student satisfaction has been considered as a core factor for success in the literature (Sahin, 2014; Ravindran et al., 2012; Sumaedi et

al., 2012) as it can affect student's trust (Omar et al., 2009). Furthermore, satisfied students can persuade new students to join their program or university by engaging in affirmative word-of-mouth to inform their friends, which can in turn encourage other students to take programs or courses in the same university. Sudharani et al. (2012) assessed the expectations, perceptions, and satisfaction of services experienced by management education students across four categories of institutions and six dimensions of quality factors, namely location, academics, infrastructure, image, cost, and personnel, and overall satisfaction. Student perception showed a significant difference across four institution categories in all six dimensions of the institution quality factors. Five factors, excluding cost, significantly influenced student satisfaction. Rad & Yarmohammadian (2006) identified satisfaction as having an important role in the determination of the educational system, as a willful accomplishment which results in one's happiness. If students have a higher level of satisfaction, this will increase their level of preparation, leading to higher skills development, knowledge, and experience. Using the Mississippi State University Pathfinders Survey (MSUPS), Valentine (2003) conducted empirical research to observe the role of satisfaction in the performance and retention of freshmen students, showing that students with higher satisfaction levels performed better than those with lower levels, thereby emphasizing the importance of service quality to educational institutions.

Farahmandian et al. (2013) examined the effects of perceived service quality on student satisfaction in higher education at the International Business School of the University of Technology, Malaysia by random sampling, collecting feedback from 225 students. The results of the research showed that the 5 investigated factors, namely facilities, advisory, services, curriculum, and financial assistance and tuition costs, positively affected student satisfaction. Khosravi et al. (2013) determined the factors affecting student satisfaction at the Islamic Azad University in Iran. They surveyed students from 10 colleges with a total sample of 324 undergraduate and 60 graduate students, and used an exploratory factor analysis to extract seven factors. Academic advice was identified as essential for service quality, while campus support services, campus life, responsiveness to diverse populations, safety and security, campus climate, and financial aid, were all found to significantly effect student satisfaction. Meanwhile, the British Columbia Ministry of Advanced Education (2003) issued a study to understand student satisfaction, finding that student satisfaction is positively correlated with program completion rates and grade achievement (GPA). Former students who reported higher levels of satisfaction tended to have higher grades and were more likely to have completed their program than students who were less satisfied.

In Letcher and Neves's (2010) analysis of the determinants of the overall student satisfaction of 1,212 senior business students including 8 factors of student satisfaction, regression results showed that advisement of students had

no effect on student satisfaction, while, self-confidence, extra-curricular activities and career opportunities, and the quality of teaching were factors shown to have a greater effect on student satisfaction. It was also reported that psychologists found that student satisfaction helps to build self-confidence and that self-confidence helps students develop useful skills and acquire knowledge. Oluseye and Tairat (2014) studied the customer relationship management approach and student satisfaction in higher education marketing, finding that students' lifecycle management, and parent relationship management, had a positively significant effect on student willingness. Thomas and Galambos (2004) focused on faculty and department roles in shaping student satisfaction, as did Letcher and Neves (2010), claiming that current research focuses on program-centered determinants of student satisfaction in business schools rather than asking business students to rate the overall college experience.

The studies of Martirosyan et al. (2014); Ko & Chung (2014); and McWherter (2012) also found a significant relationship between student satisfaction and academic performance. Student satisfaction is therefore a significant educational outcome that shows what students expect from their university, which can help the institution to achieve the first step in delivering a quality service. The current study focuses on program determinants of student satisfaction, during their business school experience. Rather than asking business students to rate their overall experience of

faculty administration, the satisfaction instrument used in this study measures the student satisfaction of service quality against specific features that are relevant to students in the business academic program such as program content, qualitative aspects of the lectures, supervision, instruction, measurement and assessment, and preparation for professional practice.

OBJECTIVES OF THE STUDY

The purpose of this study was to identify the indicators and components of students' satisfaction of service quality at Ubon Ratchathani University and examine the appropriate integration of indicators through a confirmatory factor analysis of students' satisfaction of service quality in the Faculty of Management Science, where the empirical data set consisted of senior students' satisfaction of service quality across six dimensions in 7 programs of business administration in the Faculty of Management Science at Ubon Ratchathani University, Thailand.

LITERATURE REVIEW

Conceptualization of Service Quality in Higher Education

Service quality has been given different definitions by different scholars. While Parasuraman et al. (1985) defined it as the gap between customer expectations and perceptions of performance. Juran, (1988) recognized it

as fitness for intended use, but it was also seen as conformance to requirements or satisfaction of the customer. Quality in the context of business organizations refers to an administrative philosophy which addresses policy formation, or a comprehensive administrative system based on positive essential changes within the organization. Perceived quality is defined as ones' justification of the excellence of a product or service (Zammuto et al., 1996).

The first accepted conceptualization of service quality was based on the earlier work of Parasuraman, Zeithaml & Berry, (1994). This group of authors were among the first to come up with a measurement scale for service quality, this measurement scale was known as the SERVQUAL L scale. This scale was developed based on the conceptualization of service quality as the gap between expectation (E) and perception (P). The theory argues that when determining service quality, customers compare their actual perception of the service they receive to their prior expectations, whereby, if the actual perception is equal to or more than what was expected then the service quality is said to be satisfactory, but if not, then it is unsatisfactory. The SERVQUAL L scale contains a set of 22 items captured from 5 different dimensions, namely reliability, assurance, tangibility, empathy, and responsiveness (RATER). This scale, though still widely used in many studies, has faced considerable criticism.

Firdaus (2006b) proposed a performance-based measurement scale, known as the HEdPERF model (Higher Education PERFormance-only). This model attempts to capture specific determinants of service quality within the Higher Education context. Using both exploratory and confirmatory factor analysis, six dimensions were analyzed, namely: non-academic aspects, academic aspects, reputation, access, program issues, and understanding; the findings concluded that the access dimension had a significant influence on the overall service quality and was therefore perceived to be the most important dimension when compared to the others. Wibisono & Nainggolan (2009) criticized the narrow-base of the HEdPERF. They argued that as this study was limited only to Malaysia, there was a need for its validity to be tested before being used in other areas. Their findings revealed 7 dimensions, namely nonacademic, academic, reputation, empathy, student activity, facility, and location, which were slightly different from the six dimensions of HEdPERF mentioned above. These factors, such as non-academic and academic aspects, and student activities, were used to synthesize the main factors in this research framework.

Evidence from the existing literature, therefore shows that service quality in higher education is influenced by different dimensions, with no consensus on the number of fixed dimensions that should be used in the measurement of service quality. In the search for a reliable method of measuring service quality, there has been little consensus on a methodology which can be generally applied in all service industries (Faganel, 2010). This study uses a questionnaire

derived from six different dimensions, namely the quality of program services in business, service quality of program content, service quality of the qualitative aspects of lectures, service quality of supervision, service quality of instruction, service quality of measurement and assessment, and the service quality of preparation for professional practice, in order to capture students' satisfaction and hence assess various aspects of service quality in the faculty of management science at Ubon Ratchathani University. A confirmatory factor analysis was carried out to determine the validity and suitability of the research instrument in the measurement of service quality in higher education.

Program Content Service Quality:

Program content can also be referred to as curriculum, or course content. A number of studies have established a link between program content and service quality (Athiyaman 1997, Farahmandian et al., 2013). This factor encompasses the variety of courses offered, and the effectiveness of communication with students regarding the content and purpose of these courses (LeBlanc and Nguyen 1997). Since university courses are usually grouped under different classification groups such as major course, major electives, required courses and free electives, providing a wider variety of courses increases the course choice options for students, leading to a greater level of student satisfaction (Tessema, Ready & Yu 2012). The ability to choose their desired classes is one

factor connected to overall student satisfaction (Elliott and Shin 2002). The review of the literature, therefore supports the inclusion of program content as a dimension for measuring service quality in higher education.

Qualitative Aspects of the Lecturer Service Quality:

Effective teaching can be defined as the creation of situations in which appropriate learning occurs (Braskamp and Ory 1994). However, there are doubts as to the objectivity of students in judging the quality of lecturers' teaching. Theall (2009) argued that students are qualified to judge the lecturers' teaching competency. His argument was based on the fact that students can answer questions about their teachers' teaching quality, the value of assignments, and the clarity of the lecturers' explanations. Research shows that efficacious lectures are capable of bringing about a change in students' behavior, motivation and learning outcomes (Gordon, 2001).

Supervision Service Quality:

The availability of advisory services is one of the eleven factors suggested by Elliott and Shin (2002) as a predictor of student satisfaction. Students' perception of their academic institutions is connected to the level of advisement that they receive (Wagner et al 2001). Put simply students are more satisfied when they consider the academic counseling and supervision provided by their institution, to be meaningful. Sumaedi, Bakti et al.

(2012) also suggested that advisory services in higher education has a positive influence on students' perception of service quality. By implication, therefore, an increase in the advisory or supervision services in higher education will lead to an increase in student satisfaction and hence a higher perceived service quality.

Instruction Service Quality:

A knowledge of the aspects and criteria directly linked to the professional development of a lecturer can increase the teaching quality of lecturers (Bruce & Ross, 2008). The quality of teaching can be measured by using students' perceptions of different dimensions of the teaching experience (Leckey & Neill, 2001). Considering the fact that lecturers and teaching staff are in direct contact with the students, this aspect of service delivery in higher education takes place mostly through the interaction between lecturers and students. It is based on this that a number of research studies suggest that through their knowledge of students' experiences and expectations, lecturers and teaching staff can assist students, adapting their manners and approaches towards students' needs, and by so doing, affect students' perceived service quality and satisfaction (Gruber et al., 2010). The outcome of in class lectures is a very important factor in students perceived service quality. This therefore suggests, that there is a positive relationship between the teaching aspect and students' satisfaction.

Measurement and Assessment Service Quality:

The use of measurement and assessment in determining students' satisfaction can be tricky. The grading leniency bias model assumes that students' satisfaction is linked to the grades they receive. This model suggests that students' who have higher grades give higher performance ratings to their professors than those who don't. As a result, if a professor gives undeserved higher grades, he or she may receive undeserved higher evaluation scores (Krautmann & Sander, 1999). By implication, therefore, students' who receive higher grades are more satisfied than students' who don't. However, the student characteristics model argues that certain student characteristics such as high motivation and their reasons for taking a course, result in a higher degree of learning and consequently the higher evaluation of teachers' performance and student satisfaction (Siming et al., 2015).

Preparation for Professional Practice Service Quality:

This dimension refers to the opportunities provided by a university or faculty to enhance a student's adaptability in the field. It investigates the effect of additional guest lecturers, keynote speakers and subject experts, additional activities, opportunities to join academic and career-based competitions, support for students to acquire skills for professional practice, and the encouragement of students to

carry out activities for community service, on student satisfaction.

Considering the discussion above, it is essential to analyze the six factors of institution service quality which influence overall student satisfaction towards the educational institution. Figure 1 shows the conceptual model of service quality in higher education. This model suggests that service quality in higher education is influenced by the six dimensions captured in the model, whereby an increase in student satisfaction in any single dimension will consequently lead to an increase in the overall service quality of higher education, and vise-versa.

RESEARCH METHODOLOGY

This research aims to determine the ability of a predefined factor model for the student satisfaction of service quality to fit an observed set of data, and to examine the factors affecting service quality on overall student satisfaction in the Faculty of Management Science at Ubon Ratchathani University, Thailand, by using factor analysis. The faculty has 7 undergraduate programs including accounting, finance and banking, marketing, business management, international business administration, management information system, and hotel management. This research was conducted through quantitative methods utilizing a questionnaire as the research instrument. The instrument was developed by the Faculty of Management Science at Ubon Ratchathani University (2015) based on previously employed and validated scales from the existing literature (Sudharani et al., 2012; Letcher
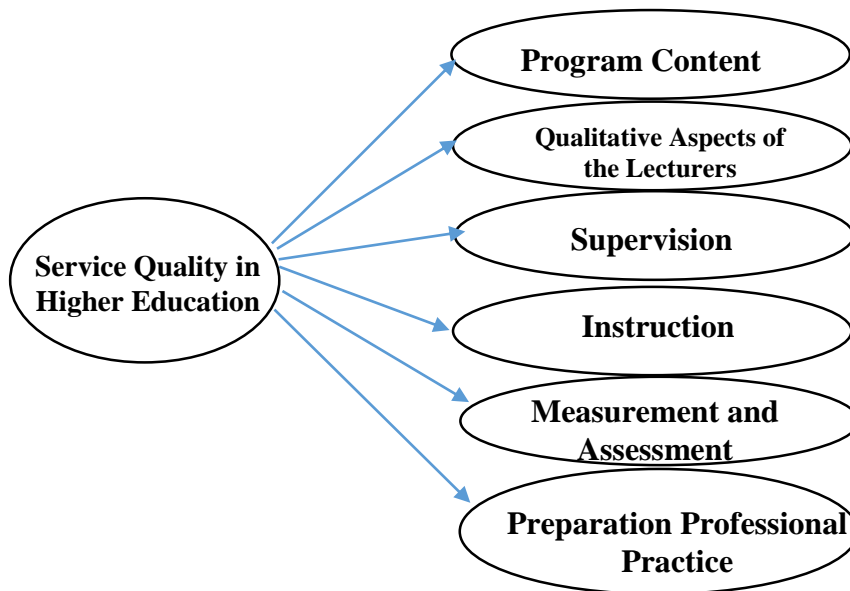

Figure 1 Model of Service Quality in Higher Education for Students

and Neves, 2010; Malik et al.,2010; Saif, 2014; and Ngamkamollert and Ruangkanjanases, 2015), to evaluate and explain service quality. In this research, the population consisted of 631 senior students selected through a purposive sampling method, of which 499 students completed and returned the questionnaire in the second semester of the 2015 academic year. Examination of student satisfaction occurred through the factors of perceived service quality, including preparation for professional practice, measurement and assessment, instruction, program content, qualitative aspects of the lecturers, and supervision. The questionnaire consisted of 32 items. The statements created requested students to measure their satisfaction of the university, faculty, and their respective program, according to their perception of service quality through a five-point Likert scale ranging from very dissatisfied to very satisfied (5 levels). Table 1 shows

the descriptive statistics of the respondents' demographic characteristics. The majority of respondents were female (89.4%), and most were fourth year students (71.2%), while others had been studying for more than 4 years (21.8%).

ANALYSIS AND FINDINGS

Analysis of the data was carried out through SPSS and MPLUS version 7.4. The overall reliability of the data using Cronbach's alpha coefficient was recorded at 0.94 with 32 items. Items identified as having an internal consistency below the acceptable threshold were deleted, maximizing the scale's reliability at 0.70 (Sekaran and Bougie, 2010). Table 2 illustrates that all Cronbach's alpha coefficients were in the acceptable range (exceed 0.7), thus indicating that the measurement instrument was reliable.

Table 1 Demographic Characteristics of the Student Sample

Variable	Category	Frequency	Percentage
Gender	Male	53	10.6%
	Female	446	89.4%
Year	The fourth year	390	78.2%
	More than the fourth year	109	21.8%
Major	Accounting	118	23.6%
	International Business Administration (IBA)	21	4.2%
	Hotel Management	40	8.0%
	Business Management	91	18.2%
	Management Information System (MIS)	67	13.4%
	Marketing	66	13.2%
	Finance and Banking	96	19.2%

The descriptive analysis shows the demographic characteristics of respondents within their institutes. There were data with missing values in approximately 5% of responses. The results are shown in table 3.

A Confirmatory Factor Model Results

A confirmatory factor analysis performed using the MPLUS program on the reported student satisfaction scores, extracted six factors. The results of the goodness-of-fit test for the observed values of student satisfaction against the model used chi-square degrees of freedom of 2.115 < 3, and are shown in table 4 (Klein, 2011). T was 0.9 relative to the strength index, CFI (CFI; Bentler, 1990) was 0.936, and TLI (TLI; Tucker and Lewis, 1973 cited from Klein, 2011) was 0.931. The Comparative Fit Index and Tucker Lewis Index are incremental

fit indices. Values can range from 0-1. For these indices, values above 0.90 indicate a reasonable fit. The standardized root-mean-square residual (SRMR: Joreskog & Sorborn, 1996) is an absolute measure of fit. The SRMR value was 0.041, which is less than the cut-off of 0.05, suggesting a good model fit as shown in table 3.

For the second order CFA of the student satisfaction model of construct validity and p-values in this study, the results showed that the loadings for all items ranged from 0.618 to 0.840, all of which are greater than 0.5 (Hair, Black, Babin, Anderson, & Tatham, 2006). The values of the reliability of deleted items (Cronbach's alpha) had values ranging from 0.953-0.954, which is greater than 0.7. p-values for all indicators are 0.000 indicating that all items for the 6 factors of student satisfaction are valid as shown in table 4.

Table 2 Cronbach's Alpha Coefficient Reliability

indicators	Alpha	N of Items
1. Program Content Service Quality	0.817	6
2. Qualitative Aspects of the Lecturers Service Quality	0.805	5
3. Supervision Service Quality	0.807	6
4. Instruction Service Quality	0.881	7
5. Measurement and Assessment Service Quality	0.727	3
6. Preparation Professional Practice Service Quality	0.764	5
Total	0.940	32

Table 3 the results of the goodness-of-fit test of the student satisfaction model

Student Satisfaction Model					Goodness of Fit Measures				
sample group	χ^2	df	P	χ^2/df	RMSEA	CFI	TLI	SRMR	AIC
499	1107.99	458	0.00	2.419	0.053	0.936	1	0.041	Smallest

Table 4 The Factor Loading of Factor structure of the Items in the Students' Satisfaction Scales

Items	Fac1	Fac2	Fac3	Fac4	Fac5	Fac6
Service Quality of Program Content 1. The program provided program content base on objectives of the curriculum.	0.721**					
2. The program provided appropriate study plan.	0.701**					
3. The content of the subjects met my expectations, which were based on the information in, for instance, the subject descriptions.	0.701**					
4. The program was in trend and serve for the labor market.	0.710**					
5. The program offered sufficient of professional courses.	0.705**					
6. The program offered sufficient of elective courses.	0.618**					
Service Quality of Qualitative aspects of the Lecturers 7. The lecturers demonstrated a sufficient command of knowledge about their discipline.		0.727**				
8. The lectures were appropriate for the chosen teaching methods.		0.814**				
9. The lecturers promoted students to develop their self and self-studying.		0.820**				
10. The lecturers demonstrated sufficiently effective teaching skills.		0.744**				
11. The lecturers had ethics and morals.		0.703**				

Table 4 (continued)

Service Quality of Supervision		
12. I received sufficient advice regarding my academic career (e.g. scheduling, problems affecting academic performance and/or study skills).	**0.763****	
13. The student advisor had many and sufficiently effective ways to communicate students.	0.763**	
14. Schedule times for meet advisor were appropriate.	0.803**	
15. I received sufficient information and advice regarding study results and progress	0.826**	
16. The advisor was regularly to encourage the student.	0.834**	
17. The student advisor has followed up student and found the method to solve student's problem.	0.840**	
Service Quality of Instruction		
18. The instructions had contents and activities base on objectives of the curriculum.		0.684*ⁱ
19. There were sufficient media in teaching activities.		0.730**
20. The program supported my skills for professional practice.		0.790**
21. The program was integrated research or academic services or culture to teaching activities.		0.763**
22. Teach skill like critical thinking and problem-solving.		0.784*ⁱ

Table 4(continued)

23. Program has tutoring courses to support poor students.	**0.756*ᵃ**	
24. The teaching activities promoted students to be 5 skills include: Ethics, Knowledge, Cognitive, Relationships and Responsibility, and Analytic of Number, Communication and use technology to gather information.	0.826**	
Service Quality of Measurement and Assessment		
25. The measurement and assessments were representative of course description and teaching activities.	0.813**	
26. The measurement and assessments criteria for papers, assignments, and exams were clearly communicated in advance.	0.827**	
27. The measurement and assessments were clearly marking and transparent.	0.782**	
Service Quality of Preparation professional practice		
28. Sufficient additional guest lecturers, keynotes, expert in that field, etc.		0.732**
39. Sufficient additional activities.		0.813**
30. The program supports student to join academic and career competitive activities.		0.792**
31. Program support students to have sufficient skills for professional practice.		0.806**
32. The program pursues students to do sufficient good activities for service community.		0.743**

Table 5

Latent Construct	Latent Construct	Estimate	S.E.	Est./S.E.	P-Value
Service Quality Satisfaction	Program Content (f1)	0.845	0.020	42.501	0.000
	Qualitative aspects of the Lecturers (f2)	0.858	0.018	47.739	0.000
	Supervision (f3)	0.758	0.023	32.283	0.000
	Instruction (f4)	0.928	0.013	73.857	0.000
	Measurement and Assessment (f5)	0.894	0.017	52.588	0.000
	Preparation professional practice (f6)	0.853	0.018	47.029	0.000

As shown in Table 5, it is evident that all correlations among the six main service quality factors: program content, qualitative aspects of the lecturers, supervision, instruction, measurement and assessment, and preparation for professional practice were statistically significant as their statistics t-test values were higher than 1.96, and the p-value of 0.000 identifies high statistical significance. In addition, instruction was found to have the highest factor loading value. The estimation was equal to 0.928 and shows a positive correlation which indicates that increased attention to instruction leads to higher student satisfaction.

Measurement and assessment was found to have the second highest factor loading value. The estimations were equal to 0.894 and show a positive correlation, indicating that increased attention to measurement and assessment leads to higher student satisfaction. The third highest factor loading value was found for the qualitative aspects of the lecturers.

The estimations were equal to 0.858 and showed a positive correlation, highlighting that increased attention to the qualitative aspects of the lecturer, leads to higher student satisfaction. The fourth highest factor loading value was found for preparation for professional practice. The estimations were equal to 0.853 and showed a positive correlation, which indicates that increased attention to preparation for professional practice leads to higher student satisfaction. The fifth highest factor loading value was found for program content. The estimations were equal to 0.845 and showed a positive correlation, which indicates that increased attention to program content leads to higher student satisfaction. The lowest factor loading value was found for supervision. The estimations were equal to 0.758 and showed a positive correlation, highlighting that increased attention to supervision leads to higher student satisfaction. The model is depicted in figure 2.
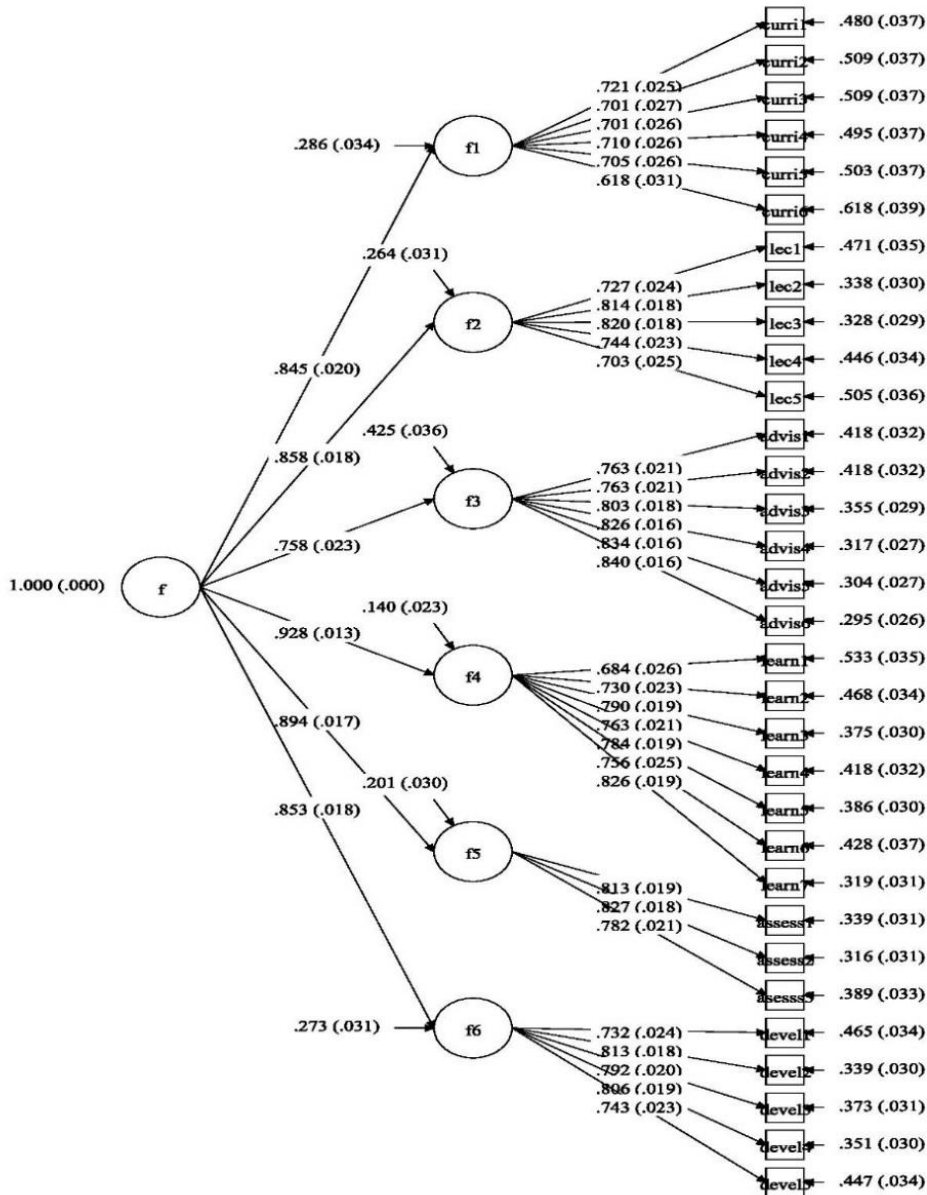
Figure2: A confirmatory factor analysis of Students' Satisfaction from Perceived Service Quality

CONCLUSION AND DISCUSSION

The results show that the 32 items from the 6 factors all have a positive relationship and a significant impact on student satisfaction of service quality in the Faculty of Management Science at Ubon Ratchathani University. These results corroborate the research findings obtained in previous studies, such as Khosravi et al. (2013) and the National research report of Noel-Levitz (2009). These results are considered as the main findings through which the research objectives of the study were met. The results of the present study indicate that student satisfaction depends on all six factors as shown in the analysis in table 5. These factors are, from the highest level of satisfaction to the lowest level of satisfaction, instruction, measurement and assessment, qualitative aspects of the lecturers, preparation for professional practice, program content, and supervision, respectively, in the Faculty of Management Science at Ubon Ratchathani University, Thailand.

Though the findings of this study identified instruction service quality as the factor with the highest satisfaction levels among students, which is consistent with the findings of previous studies (e.g., Bruce & Ross, 2008; Gruber et al., 2010) which concluded that instruction has a significant impact on student satisfaction of service quality, this in itself is not to say there is no room for improvement. There are a number of improvement areas which are necessary to focus on, these could include but should not be limited to, content and activities based on the curriculum objectives, the teaching media used by lecturers in teaching, and the integration of research and academic service or culture into classroom teaching and activities.

Concerning measurement and assessment, which was regarded by students as the second most important factor contributing to student satisfaction of service quality, it is important to make guides that are clear and transparent. This is in line with Gensee and Upshur (1996) who gave the opinion that classroom assessment and evaluation is concerned primarily with improving instruction so that student learning is enhanced. It is therefore imperative that lectures in the Faculty of Management Science at Ubon Ratchathani University plan and make instructions appropriate for individual students, as well as groups, and that they ensure that the measurements are aimed at improving and enhancing students overall learning experience.

Regarding the qualitative aspects of the lecturers, lecturers in the Faculty of Management Science should use appropriate measurement and evaluation, strategies and techniques, as these can increase their students' motivation and indicate how well their students have learned in the program (Jabbarifar, 2009). Lecturers should demonstrate sufficiently effective teaching skills, which serve the main role in creating a positive effect on student satisfaction of service quality.

Preparation for professional practice is a vital step in the success of every process including teaching. Students require sufficient additional guest lecturers, keynote speakers, experts in

their specific field, and other activities to develop in this aspect. In addition, the program should encourage students to complete sufficient activities in the form of community service, which can have multiple positive effects on the students, such as helping them to develop new skills, making contacts, and allowing them to improve the quality of life of others. Equally, the Program should support students to develop sufficient skills for their future professional practice and sufficient additional activities, as the study indicated inadequacies in this area. Therefore, the faculty of management science should work on providing excellent experiences for students. Such results corroborate the results obtained in previous studies (Khosravi A. A. and et al., 2013; Noel-Levitz (2009); Letcher & Neves, 2010).

A further look at the results indicates that there is a failure in the faculty in its ability to meet student needs in relation to the study plan and the variety of courses offered. Presently the inadequate availability of study rooms affects the faculty course schedules, which begin from 8:00 am and end at 18:00 pm; this is seen by many students to be relatively too early to start and also too late to go home. In normal circumstances, lunch time is 12:00- 13:00 pm. This is however not the case within the Faculty of Management Science at Ubon Ratchathani University which schedules lunch from 11:00 am to 12:00 pm. All these factors, therefore, affect student satisfaction, and adequate solutions should be sought in an attempt to improve satisfaction in the aforementioned areas.

Supervision was considered to be the least stratified factor, especially in the area of student advisory. Advisors should follow up more with students and make improvements regarding their support and knowledge of problem-solving. Advisors must regularly encourage students, ensuring that students receive sufficient information and advice regarding their study, results, and progress, as an important service. Appropriately scheduled times for meeting with the advisor, effective ways to communicate with students, as well as sufficient advice regarding the academic career path, are also necessary.

Overall, the findings show that there is still work to be done if the faculty aims to meet students' expectations in these 6 criteria in the Faculty of Management Science at Ubon Ratchathani University, Thailand. Therefore, based on the study outcomes, increasing the quality of these factors can result in an increase in the levels of student satisfaction of service quality (Farahmandian, Minavand, & Afshardost, 2013). Increasing the service quality being offered to students is extremely important for operators of higher education. Thus, this study will be particularly useful for the policymakers, managers, and educators within faculties, universities, and other institutions of higher learning by emphasizing the major elements that affect student satisfaction of service quality. Moreover, the outcomes of the present research will assist the administrators of this institution in identifying the weak points and strong points of the University in providing a quality service to students, such that they

will be able to apply the necessary improvements to increase student satisfaction. All in all, institutional service providers in higher education will be able to effectively distribute their resources to enhance service quality, once they are able to prioritize the major elements that help them evaluate, consider, and improve the implementation of quality standards, which will ensure continuous improvement and student satisfaction of service quality.

ACKNOWLEDGMENTS

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