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Determinants of Student Satisfaction on Continuing Education Intention: A Case St udy of Private University in Cambodia

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Abstract

The purpose of this study is to examine the impact of determinants of student satisfaction on continuing education intention for a master's degree at a leading private university, locating in Kampong Cham province, Cambodia. The study was conducted quantitatively and applied the multi-stage sampling technique by employing purposive sampling, simple random sampling, and quota sampling method. A sample size of 600 students from year 1 semester II to year 4 who are studying in various majors in this private university were involved. This study adapted the Confirmatory Factor Analysis (CFA) and the Structural Equation Model (SEM) to identify the relationship and the impact of determinants of student satisfaction on student's continuing education intention for a master's degree at a private university. The results revealed that among six determinants of student satisfaction, 4 determinants namely curriculum quality, service facility, teaching quality, and campus life & social integration have significant impact student satisfaction. Moreover, student satisfaction is campus life & social integration, followed by teaching quality, curriculum quality, and service facility, while college administration and financial assistance & tuition costs have no significant impact on student satisfaction.

Keywords: Student Satisfaction, Continuing Education Intention, Private University.

JEL Classification Code: A20, I20, I23, I26

1. Introduction

Higher education (HE) contributed a lot to developing human resource skills in the educational settings for the Cambodian economic growth. Tilak (2003), O'Brien (2004), Chealy (2009), and Williams et al. (2014) claimed that HE significantly contributed to the success of the country economic development as it provided necessary specialized human capital for the country's sustainable economic growth. Also, Vicheth and Soveacha (2013) saw higher education institutions (HEIs) played an important role in training skilled workers and professional graduates necessary for the needs of the labor market. Hanushek (2016) agreed that to a certain extent HE produced skilled human capital for the economic growth although the growth varied according to the quality of knowledge of the skilled workers. Seeing the importance of HE to economic growth, the Cambodian government strived hard to construct more new universities in some local provinces. This activity also aimed to provide available, accessible, and equitable educational services to the local students to reduce relative access difficulty, disparity, and family expenses.

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Along with the increase in HEIs, the number of students enrolled in HE in Cambodia has also increased significantly. For example, Chealy (2009) found that HE in Cambodia encountered a double-digit increase in student enrollment. Additionally, the increasing number of students enrolled in HE was also postgraduate students. The close observation of the enrolment of postgraduate education in Cambodia revealed that the current trends of the students pursuing postgraduate education in Cambodia were found to increase significantly since the number of graduates emerged to enroll more and more for master's degree, (Sothy et al., 2015). This emerging phenomenon of more postgraduate enrolment at HEIs was probably due to some benefits the students were possibly going to gain from their postgraduate education. One of the benefits of pursuing postgraduate education was that the students were ready to prepare their career success; that is, they yearned for personal development by making themselves face the challenges they came across during master courses undertaken, and the other was mainly related to career prospects by individual students; i.e., if they held master's degree, they were ready for better job opportunities when they were available (Walker, 2012). On the contrary, the problems of quality emerge when private universities increased rapidly (Chealy, 2009; Kitamura, 2016; Williams et al., 2014) as O'Brien (2004) raised the problem of unemployment of graduates when more students enrolled more in the private HEIs with the inferior quality program or because of the irrelevance of the provided subject program. Furthermore, Tithsatya (2017) found that poor admission, irrelevance curriculum, lack of qualified teachers, inadequate resources and improper infrastructure, poor leadership, poor graduates, lack of internal assurance, and financial constraints were the main causes making the quality of higher education of Cambodia inferior.

In response to the quality problems, the government established a committee to govern the quality of HE in Cambodia called the Accreditation Councils Committee (ACC) under the control of the council of minister (O'Brien, 2004). This committee was responsible for assessing, monitoring, evaluating the HEIs quality including curricula, staff capacity, school environment, and other educational intuition activities. Universities and other HEIs in Cambodia had to abide by the requirement of ACC and improved the quality of all criteria this organization obliged. Meanwhile, The HEIs should improve the institution quality, including the administrative and financial management, the quality of up-to-date curricula, the capably qualified staff, the modern facilities, and all other necessary institutional activity factors supporting the teaching and learning processes to meet the ACC requirement. By doing this, they might be able to gain student trust, satisfaction (e.g., Ali et al. (2016); Annamdevula and Bellamkonda Raja (2016); Hossain Mohammad et al. (2018); Kaur and Bhalla (2018); Pupat (2010)), as a result, they were expected to enroll in the universities. Additionally, continuing education intention of students depended on their satisfaction with the current learning experience or past experience (Navarro et al., 2005) in the university. Hence, the research aimed to examine the determinants of student satisfaction on continuing education intention for a master's degree at a leading private university in Kampong Cham province, Cambodia.

2. Literature Review and Research Framework

2.1. Literature Review

2.1.1. Theory of Total Quality Management (TQM)

Total Quality Management (TQM) was initiated by William Edwards Deming in the 1950s (Sallis, 2002). It was originally introduced in Japan to help in rebuilding their economy. TQM was a long-term management methodology to success via customer satisfaction. In the efforts of TOM, all components of the organization involved with upgrading processes, goods, services, and the culture in which they work. In the early 1980s, TQM had gained popularity with other service institutions and also recognized by many education leaders about the potential of TOM that applied to educational organizations. According to Burkhalter (1996) and Doherty (1993), TQM was another new part of the management in higher education. Cowles and Gilbreath (1993) claimed that TQM was used to improve the ethics of students or staff, increase productivity, and provide high quality services to both internal and external customers. Meanwhile, while there were accreditation and evaluation in a university that focused only on inputs and outputs, TOM's approach incorporated and improved three stages: inputs, processes, and outputs (Lewis & Smith, 1994). Moreover, Nguyen et al. (2020) also applied the TOM in developing the quality assessment model for Vietnamese higher education.

2.1.2. Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) was introduced by Ajzen (1991) as an improvement on the initial reasoned action theory suggested by Ajzen and Fishbein (1980). This theory explained how the behavioral of humans could be changed (e.g., reduced satisfaction) and claimed that behavior was controlled by intentions. This intension was affected by 3 factors: attitude (the result of the behavior and the value placed on the outcome), subjective norms (their perceptions of other people's views on behavior), and control of perceived behavioral (the scope of which they feel they could actually execute the behavior). Moreover, TPB extended an opportunity for educators and scholars to inspect how to motivate and predict student relationships in the classroom (Ajzen, 1991). Lei et al. (2010) proposed that low level of student confidence may be the factor in the student's adherence to college expectations (motivation). In addition, Sharma et al. (2013) showed that students'

decisions to comply with college aspirations were influenced by both internal and external factors (attitudes). So, it seemed plausible that TPB, which contained both attitudinal and motivational elements, could be used to study student motivation to conform to well-performing student assessments of teaching.

2.1.3. Intention for Continued Education

Continuing intention related to a buying behavior of goods depended on their past experience and strongly related to customers intention to buy or repurchase or recommended this goods or service to an others (Oliver, 1999). Likewise, the decisions in the process of continuing education or the decision to pursue any other major of a student at any specific university was the same to the selection to repurchase a particular service or goods or the consumer decision to continue the use of information systems (Chiu & Wang, 2008). Moreover, Gorard and Smith (2007) indicated that continuing education or commitment to study was one of the most powerful predictors of academic participation that was highly correlated with early learning experience as an educational obligation. More specifically, assessing students' previous experiences were reflected by continuing to study in the same course or other courses (Navarro et al., 2005).

2.1.4. Curriculum Quality

Curriculum quality was all of the learning interaction planned and guided by a school that students can practice in groups or individually through content, materials, resources, and assessment processes to achieve educational objectives (Moore, 2006). Knight and Yorke (2002) showed that the curriculum quality defined the skills, knowledge, and qualifications that graduates will develop and their preparation for a career. Meanwhile, the curriculum quality and courses quality issued by university could affect the satisfaction of the students (Browne et al., 1998). And also in the academic field, student satisfaction data had helped colleges and universities to develop curricula to meet changing market needs (Ten Eyck et al., 2009; Witowski, 2008). According to these findings, the following hypothesis is proposed.

H1: There is a significant relationship between curriculum quality and student satisfaction.

2.1.5. Service Facility

Service facility related to physical facilities like the library was rich, computer labs were modern, parking, study room, lecture hall, school buildings, lighting, lecturer's room and the appearance of buildings, transportation service, rental house, and shops, etc. (Hossain Mohammad et al., 2018). Similarly, the physical facility in institutions of higher education included adequate lighting in the classroom, appearance of school building, plan of lecturer halls, and clean-up of the campus as well as in the classrooms and rooms for self-study (Sohail & Shaikh, 2004). Moreover, Aldridge and Rowley (1998) showed that the physical facilities like services of library, facilities of technology, and lecturer rooms had impacted on students' educational experience. In additionally, organizing and managing a good cafeteria, playground, parking space, and other physical facilities were significantly satisfying for students (Malik et al., 2010). Hence, the following hypothesis is derived.

H2: There is a significant relationship between service facility and student satisfaction.

2.1.6. College Administration

College administration was the administrative service which was provided services including staff availability during working time, the immediate service without delay, their attitude and behavior toward the service recipients, their effectiveness of record-keeping, and the quality of the college security service (Kaur & Bhalla, 2018). Furthermore, the non-academic aspects also were an administrative aspect which was a facilitator for students' academic work, which was the responsibility of administrative staff, and also concerned about the ability and willingness of administrative staff to provide equal services and protect the confidentiality of student information (Abdullah, 2005, 2006). Meanwhile, Hardi et al. (2020) found that the non-academic aspects had a positive and significant effect on students' satisfaction such as the ability of administrative staff to store students' data, always keeping promises, and always giving quick and efficient responses. And Galloway (1998) found that the frontline staff who were important indicators of the quality of administrative work to students such as the appearance of professional in office, always assist to students, attractive staff uniforms, and contact at any time had influenced on student satisfaction and other customers. Thus, the following hypothesis is developed.

H3: There is a significant relationship between college administration and student satisfaction.

2.1.7. Teaching Quality

The teaching quality related to the quality of the teachers who had developed a good teaching method for teaching and the knowledge that the teachers had to give to the students for an effective class (Darling-Hammond, 2000). Additionally, Kleickmann et al. (2013) and KaewNate (2011) proposed that the teaching quality referred to the assessment of the quality of teachers in relation to classroom and university performance, knowledge, experience and skills in teaching services, and other tasks such as regular classes, availability of consultations, feedback for evaluation, permission to have questions and answers, and good communication. Therefore, the effectiveness and quality of teaching, faculty readiness, and professionalism could provide the student satisfaction (Mai, 2005; Mavondo et al., 2004). In the same way, the influencing the quality of professors' teaching in the classroom, the response to the lessons and assignments assigned by the teacher, and the individual relationship between the professor and the students were the factors that made the students satisfied (Hill et al., 2003). Thus, the following hypothesis is proposed.

H4: There is a significant relationship between teaching quality and student satisfaction.

2.1.8. Financial Assistance & Tuition Costs

Financial assistance and tuition costs were the processes and methods of providing helps to students with regards to college flexibility of school fee payment and a variety of scholarships which were provided to the students. Additionally, the competitiveness of school fees compared to other college fees and periods of student registration were also necessary parts of the assistant processes (Farahmandian et al., 2013). Moreover, several articles showed that financial assistance & tuition costs could affect overall student satisfaction. Gamage et al. (2008) showed that tuition fee and financial assistance could affect the student's satisfaction in general. Furthermore, receiving financial aid at a university, such as scholarships, loans and tuition fees, was an important aspect of influencing student satisfaction and was a part of motivating students to choose one of the specific universities (Webb et al., 1997). Hence, the following hypothesis is derived.

H5: There is a significant relationship between financial assistance & tuition costs and student satisfaction.

2.1.9. Campus Life & Social Integration

Martirosyan (2015) defined campus life and social integration as the students' sense of belonging, taking care of and the opportunity for the students to socialize within the school environment. Students feel safe, comfortable, and welcome in the school compound, and they also had adequate activities for socialization during their educational lifetime. Additionally, students' participation in sustainable campus operations contributed to making students feel good about the campus, willing to contribute to every campus activity, and feeling hopeful and confident in their abilities to make changes with confidence (Figueredo & Tsarenko, 2013). Meanwhile, Cooper et al. (1994) proposed that participation in the student organizations, which was important in developing the friendship connection as well as work communication skills, could have a significant effect on the satisfaction of student at university. Furthermore, Liu and Liu (2004) pointed out that social integration also influenced student satisfaction. Thus, the following hypothesis is proposed.

H6: There is a significant relationship between campus life & social integration and student satisfaction.

2.1.10. Student Satisfaction

Satisfaction was a customer's general behavior to the service being provided or a feeling that customers expect what they will get and the same as what they expect (Kunanusorn & Puttawong, 2015). Students' satisfaction was a short-term attitude that resulted from their experiences with educational services (Elliott & Healy, 2001). Moreover, Oliver (1980) claimed that the purpose of repurchasing was strongly based on customer satisfaction, similar to continuing use of the products or services (Bhattacherjee, 2001). Additionally, Maharsi et al. (2021) also found the customer satisfaction positively affected purchasing intention. Hence, the following hypothesis is developed.

H7: There is a significant relationship between student satisfaction and intention for continued education.

2.2. Research Framework

The conceptual framework of this research is developed from the related theoretical frameworks of various theoretical models to indicate the determinants of student satisfaction on continuing education intention. Furthermore, this conceptual framework was developed depending on eight variables with three variable types: independent, mediator, and dependent variables. Five independent variables were curriculum quality (CO), service facility (SF), college administration (CA), teaching quality (TQ), financial assistance & tuition costs (FATC), and campus life & social integration (CLSI), one mediator was student satisfaction (SS), and one depend variable was intention for continued education (ICE). The conceptual framework of this study is shown in figure 1. Therefore, this study aims to find the determinants of student satisfaction on continuing education intention as regards various aspects such as curriculum quality (CQ), service facility (SF), college administration (CA), teaching quality (TQ), financial assistance & tuition costs (FATC), and campus life & social integration (CLSI) intention for continued education (ICE) at a leading private university in Kampong Cham province, Cambodia. Moreover, this study also investigates the causal relationship between each variable to indicate the influence of these dimensions affecting student satisfaction toward continuing education intention.



Figure 1: The Conceptual Framework

3. Research Methodology

The researcher applied the quantitative method and multi-stage sampling technique in selecting the university and gathering primary data with designed questionnaire as a survey tool for this research. The developed questionnaire was distributed to the students in the class from year 1 semester II to year 4 at a leading private university in Kampong Cham province, Cambodia. The questionnaire consisted of three parts. The first part is the screening question to identify the respondents. The second part is a five-point Likert scale items ranging from strongly disagree (1) to strongly agree (5) used to measure eight variables. The last part of the questionnaire is the demographic factors of the respondents. Firstly, the questionnaires were delivered to 600 target respondents and the data collected were analyzed through SPSS 26 and AMOS 23. Confirmatory Factor Analysis (CFA) was conducted to test the convergence accuracy, and the validation results were classified. Finally, the researcher applied the Structural Equation Model (SEM) to define the effect of variables.

3.1. Population and Sample Size

Ary et al. (2010) identified that the population of target was the big group that the researcher wanted to implement the outcomes of this study. Moreover, Barnsbee et al. (2018) proposed that the population of target was the individuals' group for whom the researcher intended to make a research and draw assumptions. Furthermore, Nsiah-Gyabaah (2015) showed that the target population was a collection of individuals or items which were the focus of the researcher. The target population of this study was the undergraduate students in year 1 semester II to year 4 at a leading private university in Kampong Cham province, Cambodia. The researcher used Daniel Soper's website (Soper, 2015), Apriori Sample size Calculator for Structural Equation Models (SEM), to define the recommended minimum sample size. By applying anticipated effect size was 0.2, desired statistical power level was 0.8, a number of latent and observed variables was 8 and 46 respectively, and probability level was 0.05, then the result of the recommended minimum sample size was equal to 444. For a better statistical result, the researcher determined 600 qualified respondents for the study.

3.2. Sampling Technique

The researcher had used multi-stage sampling as it involved selecting a sample size by two or more stages (Onwuegbuzie & Leech, 2007). The first stage was purposive sampling methods were used to select a leading private university in Kampong Cham Province, Cambodia. The survey has been conducted from mid December 2020 to February 2021. Additionally, purposive sampling was used to select students from student's name list who studied any fields in this university from year 1 semester 2 to year 4. Purposive sampling in this instance enabled us to choose people whose views are relevant to the research topic (Jankowicz, 1995). In the second stage, random sampling was used to select the respondents from the name list of students by year. Finally, a quota sampling, proposed by Sharma (2017), the aim of quota sampling is to end up with a sample where the strata (groups) being studied (e.g. males vs. females students) are proportional to the population being studied, was used to group the student by year. The questionnaires were distributed by the dean of the faculty, the registrar office, and the foundation year office, in hard copy, to the respondents.

Table1: Population and Sample Size by Year in Semester II

Year	Approximate Population Size	Percentage (%)	Proportionate Sample Size	
1 st Year	609	29%	174	
2 nd Year	653	30%	180	
3 rd Year	410	19%	114	
4th Year	477	22%	132	
Total	2,149	100%	600	

Source: Constructed by author (based on student statistics at a leading private university in academic year 2019-2020, Semester II)

Table 1 showed the number of students from year 1 to year 4 in semester II for the academic year 2019-2020 at a leading private university. In year 1, there are 609 students. The researcher selected only 174 students as the proportionate sample size. There were 653 students in year 2. Only 180 students were selected as the proportionate sample size. Among 410 students in year 3, only 114 students were selected as the proportionate sample size. For

year 4, studying, only 132 students were selected from 477 students as the proportionate samples size.

4. Results and Discussion

4.1. Demographic Factors

The demographic profile of the 600 respondents in this study showed that the majority of respondents were female (70.8%) and male (29.2%). For the age profile, the respondents with the age band of 20-21 represented the majority of respondents at about 46.5%, while the respondents in the age band of 18-19 were 31.3% of the total respondents. The other three age bands of 17 and below, 22-23, and 24 and above were 4.0%, 12.5% and 5.7%, respectively. In terms of year which the respondents were studying, the majority of respondents in Year 2 were 30% of the total respondents, and the others were Year 1 Semester II with 29.0%, Year 3 with 19.0%, and Year 4 with 22.0%. The majors of the respondents were Accounting with the highest percentage at 28.7%, and the other majors: Management, Banking and Finance, Law, and English with 26.7%, 17.0%,

11.5%, 10.3%, and 5.8%, respectively. Moreover, they were asked about their employment status during their study. The results showed the respondents employed were 48.7%, while the unemployed were 51.3%.

4.2. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is the statistical technique used to test the convergent and discriminant validity of the measurement model. The CFA's result in table 2 showed that all items of each variable are significant and have factors loading to demonstrate discriminant validity as displayed in table 3. Byrne (2010) stated that CFA was a method applied to test the measurement model to see if the measured observed variables were associated with the underlying latent variables. As table 2 showed, all factors loading value of each item are greater than 0.50 aligning with Comrey and Lee (1992). In addition, Fornell and Larcker (1981), the Composite Reliability (CR) was greater than the cut-off point of 0.70 and Average Variance Extracted (AVE) was higher than the cut-off point of 0.40.

Table 2: Confirmatory Factor Analysis (CFA), Composite Reliability (CR), and Average Variance Extracted (AVE) Results

Variables	Source of Questionnaire	Items	Cronbach's Alpha	Factors Loading	CR	AVE
Curriculum Quality (CQ)	(Hossain Mohammad et al., 2018)	6	0.853	0.670 - 0.747	0.853	0.493
Service Facility (SF)	(Hossain Mohammad et al., 2018)	7	0.897	0.629 - 0.827	0.896	0.553
College Administration (CA)	(Kaur & Bhalla, 2018)	5	0.849	0.682 - 0.752	0.844	0.520
Teaching Quality (TQ)	(Farahmandian et al., 2013)	9	0.871	0.616 - 0.718	0.881	0.453
Financial Assistance & tuition Costs (FATC)	(Farahmandian et al., 2013)	5	0.859	0.680 - 0.789	0.860	0.552
Campus Life & Social Integration (CLSI)	(Martirosyan, 2015)	8	0.860	0.564 - 0.701	0.861	0.438
Student Satisfaction (SS)	(Hossain Mohammad et al., 2018)	3	0.877	0.820 - 0.875	0.877	0.703
Intention for Continued Education (ICE)	(Hossain Mohammad et al., 2018)	3	0.880	0.816 - 0.868	0.880	0.709

Note: CR = Composite Reliability, AVE = Average Variance Extracted.

Moreover, the testing of discriminant validity was evaluated by computing the square root of each AVE according to Fornell and Larcker (1981). Generally, each variable should be higher than the covariant relation between variables in the model. From this study, the correlation coefficient between two variables is smaller than the AVE square root of the structural variable. Hence, it can be assumed that the discriminant validity is supported, as illustrated in table 3.

Table 3: Discriminant Validity

Correlation	CQ	SF	CA	TQ	FATC	CLSI	SS	ICE
CQ	0.702							
SF	0.208	0.744						
CA	0.398	0.174	0.721					
TQ	0.499	0.188	0.530	0.673				
FATC	0.135	0.094	0.299	0.261	0.743			
CLSI	0.441	0.202	0.488	0.565	0.398	0.661		
SS	0.451	0.252	0.402	0.549	0.250	0.579	0.839	
ICE	0.432	0.224	0.380	0.493	0.290	0.542	0.725	0.842

Note: The diagonally listed value is the AVE square roots of the variables.

In this study, the first orders factor analysis technique was applied with the estimation of weight factor setting the goodness of fit indices. Some indices were also employed such as CMIN/df (Ratio of the chi-square value to degree of freedom), GFI (Goodness of fit index), AGFI (Adjusted GFI), NFI (Normalized fit index), TLI (Tucker-Lewis index), CFI (Comparative fit index), RMSEA (Root mean square error of approximation, and SRMR (Standard root mean square residual) involving 8 measurement models: Curriculum **Ouality**, Service Facility, College Administration, Teaching Quality, Financial Assistance & Tuition Costs, Campus Life & Social Integration, Student Satisfaction, and Intention for Continued Education as illustrated in table 4.

As shown in table 4, all values of indices met the criterion recommendation, indicating that the research hypotheses have proper suitability for the study, where CMIN/df = 1.424, GFI = 0.910, AGFI = 0.899, NFI = 0.904, TLI = 0.967, CFI = 0969, RMSEA = 0.027, and SRMR = 0.014.

Goodness-of- Fit Indices	Criterion and Sources	Value
CMIN/df	≤2.00 (Byrne, 2001; Ullman, 2001)	1.424
GFI	≥0.90 (Hu & Bentler, 1999)	0.910
AGFI	≥ 0.80 (Segars & Grover, 1993)	0.899
NFI	≥ 0.90 (Hair et al., 2010)	0.904
TLI	≥ 0.95 (Hu & Bentler, 1999)	0.967
CFI	≥0.95 (Hu & Bentler, 1999)	0.969
RMSEA	≤ 0.05 (Hair et al., 2010)	0.027
SRMR	< 0.08 (Bacon, 1997; Hu & Bentler, 1999)	0.014
CMIN/DF = The	ratio of the chi-square value to degree of free	dom, GFI

Table 4: Goodness of Fit	
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= goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normalized fit index, TLI = Tucker-Lewis Index, CFI = Comparative fit index, RMSEA = Root mean square error of approximation, and SRMR = Standard root mean square residual

4.3. Structural Equation Model (SEM)

Structural Equation Model (SEM) stated by Ullman (2001) was a statistical technique that was the combination of factor analysis and regression analysis (multivariate models). After the subsequence process in SEMs and adjusting the model, the results of SEM analysis on the determinants of student satisfaction on continuing education intention for a master's degree at a leading private university in Kampong Cham province were acceptable and consistent with the criteria in table 4. The overall model fit index is CMIN/df = 1.549, GFI = 0.902, AGFI = 0.892, CFI = 0.959, TIL = 0.957, and RMSEA = 0.030. Hence, the results strongly indicated that each set of items represents a single underlying construct and provides evidence for discriminant validity and fit.

Table 5: Hypothesis Result of the Structural Model

4.4. Research Hypotheses Testing Results

For hypothesis 1 (H1), the standardized path coefficient between Curriculum Quality and Student Satisfaction was 0.160 (t-value = 3.297^{***}). There is a significant relationship between curriculum quality and student satisfaction. Thus, H1 was supported. For hypothesis 2 (H2), the standardized path coefficient between Service Facility and Student Satisfaction was 0.115 (t-value = 3.321^{***}). There is a significant relationship between service facility and student satisfaction. So, H2 was supported. For hypothesis 3 (H3), the standardized path coefficient between College Administration and Student Satisfaction was -0.019 (t-value = -0.376). There is no a significant relationship between college administration and student satisfaction. Therefore, H3 was not supported. For hypothesis 4 (H4), the standardized path coefficient between Teaching Quality and Student Satisfaction was 0.271 (t-value = 4.566^{***}). There is a significant relationship between teaching quality and student satisfaction. Thus, H4 was supported. For hypothesis 5 (H5), the standardized path coefficient between Financial Assistance & Tuition Costs and Student Satisfaction was 0.020 (t-value = 0.486). There is no a significant relationship between financial assistance & tuition costs and student satisfaction. Hence, H5 was not supported. For hypothesis 6 (H6), the standardized path coefficient between Campus Life & Social Integration and Student Satisfaction was 0.415 $(t-value = 6.579^{***})$. There is a significant relationship between campus life & social integration and student satisfaction. Thus, H6 was supported. For hypothesis 7 (H7), the standardized path coefficient between Student Satisfaction and Intention for Continued Education was 0.841 (t-value = 19.329^{***}). There is a significant relationship between student satisfaction and intention for continued education. Consequently, H7 was supported. The summarized hypotheses testing was illustrated in table 5.

Hypotheses	Paths	Standardized Path Coefficients (β)	S.E.	t-value > 1.98	Test Result
H1	$CQ \rightarrow SS$	0.160	0.055	3.297 ***	Supported
H2	$SF \rightarrow SS$	0.115	0.039	3.321 ***	Supported
Н3	$CA \rightarrow SS$	-0.019	0.051	-0.376	Not Supported
H4	$TQ \rightarrow SS$	0.271	0.073	4.566 ***	Supported
Н5	$FATC \rightarrow SS$	0.020	0.040	0.486	Not Supported
Н6	$CLSI \rightarrow SS$	0.415	0.084	6.579 ***	Supported
H7	$SS \rightarrow ICE$	0.841	0.047	19.329 ***	Supported

Note: *** p<0.05

5. Conclusions, Recommendations, and Limitation

5.1. Conclusions

In this study, the research has expanded the current literature by understanding and investigating the determinants of student satisfaction on continuing education intention. The aim of the research is to investigate the determinants of student satisfaction like curriculum quality. service facility, college administration, teaching quality, financial assistance & tuition costs, and campus life & social integration impact on student satisfaction toward continuing education intention for master's degree at a leading private university in Kampong Cham province, Cambodia. A total of 600 questionnaires were distributed to students studying in year 1 semester II to year 4 at a leading private university. The conceptual framework was applied from theory and statistics, which comprise curriculum quality, service facility, college administration, teaching quality, financial assistance & tuition costs, campus life & social integration, student satisfaction, and intention for continued education for defining all hypotheses. Moreover, the research outcome was validity and reliability by Confirmatory Factor Analysis (CFA) and verify the influence and relationship between measured variables and conclude the research by Structural Equation Model (SEM).

The finding of research showed that there is a significant relationship between four determinants of student satisfaction like curriculum quality, service facility, teaching quality, and campus life & social integration and student satisfaction, consistent with existing studies (Farahmandian et al., 2013; Hossain Mohammad et al., 2018; Martirosyan, 2015; Napitupulu et al., 2018; Schertzer & Schertzer, 2004; Xiao & Wilkins, 2015). And also, there is a significant relationship between student satisfaction and intention for continued education, consistent with existing studies (Bhattacherjee, 2001; Fornell, 1992; Hossain Mohammad et al., 2018). On the other hand, there is no significant relationship between the two determinants of student satisfaction and student satisfaction which contradicts existing studies (Farahmandian et al., 2013; Gamage et al., 2008; Kaur & Bhalla, 2018).

5.2. Recommendation

According to the outcome of research, the student satisfaction can make the student's continuing education intention for master's degree. There are four determinants of student satisfaction which effects on student satisfaction such as curriculum quality, service facility, teaching quality, and campus life & social integration.

Hence, this research provides the recommendations that the university should consider or focus on the needs of students, such as the curriculum should be improved in line with the specialization and needs of the labor market, regularly curriculum revisions in basic and each course should to provide maximum opportunities relating to experience, development, and in-depth learning (Knight, 2002). Furthermore, University should invest the library and e-library resources that easy to access and the resources should also be highly reliable and adequately updated, some resources should be up to date both software and hardware, also internet service in the university (speed and signal of WIFI), computer labs should be up-to-date with high capacity, and also classroom renovation.

Additionally, the teaching was an activity of interpersonal interaction that involved language as communication and can help students learn or change their learning behavior (Anderson & Burns, 1991) and quality of teaching depends on the teacher, which is an important part of providing quality knowledge to students, so the university must pay attention to the teaching of teachers by encouraging teachers in various ways, regularly monitor the teaching of teachers, such as teaching methods, teaching materials, the course arrangement by following the curriculum of the university, and the relationship between students and teachers in order to improve the effectiveness of teaching and learning, as well as to promote learning from teachers to students and providing effective feedback on student's performance. Meanwhile, the activities, living condition, student participation on campus should also be improved.

However, universities should not neglect to build staff capacity and review financial aid for poor students and scholarships, although these dimensions do not affect student satisfaction in this study.

5.3. Limitation and Further Research

This study has some limitations that should be explored in further research. Firstly, the results of this research are limited from one private university, located in Kampong Cham province in Cambodia and among undergraduate students at a leading private university in Kampong Cham province. For this reason, further research should select both public and private universities and also do a comparison. Furthermore, this research selected only 600 students as the sample size to analyze the result. Therefore, the findings could not generalize applicable to all universities in Cambodia. Additionally, this research did not define the effect of demographic factors like gender, age, education, and employment on any constructs.

Lastly, this study should include qualitative surveys such as interviews or focus groups to be more reliable and quality data because education is lifelong learning and make the quality of life (Hossain Mohammad et al., 2018). So, this research should be extended to identify the determinants of student satisfaction on continuing education intention to get a quality of life.

References:

- Abdullah, F. (2005). HEdPERF versus SERVPERF: The quest for ideal measuring instrument of service quality in higher education sector. *Quality assurance in education*, 13(4), 305-328. https://doi.org/10.1108/09684880510626584
- Abdullah, F. (2006). Measuring service quality in higher education: HEdPERF versus SERVPERF. *Marketing Intelligence &*

31-47.

Planning, 24(1),https://doi.org/10.1108/02634500610641543

- Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T
- Ajzen, I. F., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Prentice-hall Englewood Cliffs, NJ, 278.
- Aldridge, S., & Rowley, J. (1998). Measuring customer satisfaction in higher education. Quality assurance in education, 6(4), 197-204. https://doi.org/10.1108/09684889810242182
- Ali, F., Zhou, Y., Hussain, K., Nair Pradeep, K., & Ragavan Neethiahnanthan, A. (2016). Does higher education service quality effect student satisfaction, image and loyalty? A study of international students in Malaysian public universities. Quality assurance in education, 24(1), 70-94. https://doi.org/10.1108/QAE-02-2014-0008
- Anderson, L. W., & Burns, R. B. (1991). Research in Classrooms: The Study of Teachers. Teaching and Instruction. British Journal of Educational Studies, 39(1), 84-85.
- Annamdevula, S., & Bellamkonda Raja, S. (2016). Effect of student perceived service quality on student satisfaction, loyalty and motivation in Indian universities: Development of HiEduQual. Journal of Modelling in Management, 11(2), 488-517. https://doi.org/10.1108/JM2-01-2014-0010
- Ary, D., Jacobs, L., Sorensen, C., & Walker, D. (2010). Introduction to research in education. Wadsworth, Cengage Learning.
- Bacon, L. (1997). SPSS White Paper: Using Amos for Structural Equation Modeling in Marketing Research. Marketing Department, SPSS Inc.
- Barnsbee, L., Barnett, A. G., Halton, K., & Nghiem, S. (2018). Chapter 24 - Cost-effectiveness. In S. D. Gregory, M. C. Stevens, & J. F. Fraser (Eds.), Mechanical Circulatory and Respiratory Support (pp. 749-772). Academic Press. https://doi.org/10.1016/B978-0-12-810491-0.00024-2
- Bhattacherjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. MIS quarterly, 351-370. https://doi.org/10.2307/3250921
- Browne, B. A., Kaldenberg, D. O., Browne, W. G., & Brown, D. J. (1998). Student as Customer: Factors Affecting Satisfaction and Assessments of Institutional Quality. Journal of marketing for higher education, 8(3), 1-14. https://doi.org/10.1300/J050v08n03 01
- Burkhalter, B. B. (1996). How can institutions of higher education achieve quality within the new economy? Total Quality Management. 7(2), 153-160. https://doi.org/10.1080/09544129650034909
- Byrne, B. M. (2001). Structural Equation Modeling With AMOS, EQS, and LISREL: Comparative Approaches to Testing for the Factorial Validity of a Measuring Instrument. International journal testing, 55-86. of l(1),https://doi.org/10.1207/S15327574IJT0101 4
- Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications, and programming, 2nd ed. Routledge/Taylor & Francis Group.
- Chealy, C. (2009). Higher education in Cambodia. In The political economy of educational reforms and capacity development in Southeast Asia (pp. 153-165). Springer.
- Chiu, C.-M., & Wang, E. T. G. (2008). Understanding Web-based learning continuance intention: The role of subjective task value. Information & Management, 45(3), 194-201.

https://doi.org/10.1016/j.im.2008.02.003

- Comrey, A. L., & Lee, H. B. (1992). Interpretation and Application of Factor Analytic Results. In A First Course in Factor Analysis (2nd ed.). Psychology Press. https://doi.org/10.4324/9781315827506
- Cooper, D. L., Healy, M. A., & Simpson, J. (1994). Student development through involvement: Specific changes over time. Journal of College Student Development, 35(2), 98-102.
- Cowles, D., & Gilbreath, G. (1993). Total quality management at Virginia Commonwealth University: an urban university struggles with the realities of TQM. Higher Education, 25(3), 281-302. https://doi.org/10.1007/BF01383855
- Darling-Hammond, L. (2000). Teacher quality and student achievement. Education policy analysis archives, 8, 1. https://doi.org/10.14507/epaa.v8n1.2000
- Doherty, G. D. (1993). Towards total quality management in higher education: a case study of the University of Wolverhampton. Higher Education, 321-339. 25(3), https://doi.org/10.1007/BF01383857
- Elliott, K. M., & Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. Journal of marketing for higher education, 10(4), 1-11. https://doi.org/10.1300/J050v10n04 01
- Farahmandian, S., Minavand, H., & Afshardost, M. (2013). Perceived service quality and student satisfaction in higher education. Journal of Business and Management, 12(4), 65-74.
- Figueredo, F. R., & Tsarenko, Y. (2013). Is "being green" a determinant of participation in university sustainability initiatives? International Journal of Sustainability in Higher Education, 14(3), 242-253. https://doi.org/10.1108/IJSHE-02-2011-0017
- Fornell, C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. Journal of marketing, 56(1), 6-21. https://doi.org/10.1177/002224299205600103
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. of marketing research, 39-50. Journal 18(1), https://doi.org/10.1177/002224378101800104
- Galloway, L. (1998). Quality perceptions of internal and external customers: a case study in educational administration. The TOM magazine, 20-26. 10(1),https://doi.org/10.1108/09544789810197774
- Gamage, D. T., Suwanabroma, J., Ueyama, T., Hada, S., & Sekikawa, E. (2008). The impact of quality assurance measures on student services at the Japanese and Thai private universities. Quality assurance in education, 16(2), 181-198. https://doi.org/10.1108/09684880810868457
- Gorard, S., & Smith, E. (2007). Do barriers get in the way? A review of the determinants of post-16 participation. Research Post-Compulsorv Education, 141-158. 12(2), in https://doi.org/10.1080/13596740701387437
- Hair, J., Anderson, R., Tatham, R., & Black, W. (2010). Multivariate data analysis (6th ed.). Upper Saddle River, NJ:Prentice Hall, pp. 137-142.
- Hanushek, E. A. (2016). Will more higher education improve economic growth? Oxford Review of Economic Policy, 32(4), 538-552. https://doi.org/10.1093/oxrep/grw025
- Hardi, M., Arief, H., Nelvitia, P., & Rudy, P. (2020). Effect of Service Quality Toward Student Satisfaction and Loyalty in Higher Education. The Journal of Asian Finance, Economics 929-938. and Business, 7(10), https://doi.org/10.13106/JAFEB.2020.VOL7.NO10.929

- Hill, Y., Lomas, L., & MacGregor, J. (2003). Students' perceptions of quality in higher education. *Quality assurance in education*, 11(1), 15-20. https://doi.org/10.1108/09684880310462047
- Hossain Mohammad, A., Hossain Md, M., & Chowdhury Tajmin, H. (2018). Understanding the success of private universities: An empirical investigation from graduates' perspective. *International Journal of Quality & Reliability Management*, 35(1), 145-162. https://doi.org/10.1108/IJQRM-02-2015-0031
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55. https://doi.org/10.1080/10705519909540118
- Jankowicz, A. D. (1995). Negotiating shared meanings of the management process: A discourse in two voices. Journal of Constructivist Psychology, 8(2), 117-128. https://doi.org/10.1080/10720539508405246
- KaewNate, P. (2011). The Initial Impact of ODIs on Lecturer Commitment to Thailand Qualification Framework, Quality Assurance, and Quality of Teaching: A Case Study of Suan Dusit Rajaphat University. AU-GSB e-JOURNAL, 4(2). http://www.assumptionjournal.au.edu/index.php/AU-GSB/article/view/501
- Kaur, H., & Bhalla, G. S. (2018). Determinants of effectiveness in public higher education-students' viewpoint. *International Journal of Educational Management*, 32(6), 1135-1155. https://doi.org/10.1108/IJEM-09-2016-0188
- Kitamura, Y. (2016). Higher Education in Cambodia: Challenges to Promote Greater Access and Higher Quality. In *The Palgrave Handbook of Asia Pacific Higher Education* (pp. 365-380). Springer. https://doi.org/10.1057/978-1-137-48739-1 24
- Kleickmann, T., Richter, D., Kunter, M., Elsner, J., Besser, M., Krauss, S., & Baumert, J. (2013). Teachers' Content Knowledge and Pedagogical Content Knowledge:The Role of Structural Differences in Teacher Education. *Journal of teacher education*, 64(1), 90-106. https://doi.org/10.1177/0022487112460398
- Knight, P. (2002). *Being a teacher in higher education*. McGraw-Hill Education (UK).
- Knight, P. T., & Yorke, M. (2002). Employability Through the Curriculum. *Tertiary education and management*, 8(4), 261-276. https://doi.org/10.1023/A:1021222629067
- Kunanusorn, A., & Puttawong, D. (2015). The Mediating effect of satisfaction on student loyalty to higher education institution. *European Scientific Journal*.
- Lei, S., Bartlett, K. A., Gorney, S., & Herschbach, T. R. (2010). Resistance to Reading Compliance among College Students: Instructors' Perspectives. *College Student Journal*, 44, 219-229.
- Lewis, R. G., & Smith, D. H. (1994). Total Quality in Higher Education. ERIC.
- Liu, R., & Liu, R. (2004). Satisfaction and performance: a reciprocal model. *the Annual Forum of the Association for Institutional Research*(Boston, MA).
- Maharsi, A. R., Njotoprajitno, R. S., Hadianto, B., & Wiraatmaja, J. (2021). The Effect of Service Quality and Customer Satisfaction on Purchasing Intention: A Case Study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(4), 475-482. https://doi.org/10.13106/JAFEB.2021.VOL8.NO4.0475
- Mai, L.-W. (2005). A Comparative Study Between UK and US: The Student Satisfaction in Higher Education and its Influential

Factors. Journal of marketing management, 21(7-8), 859-878. https://doi.org/10.1362/026725705774538471

- Malik, M. E., Danish, R. Q., & Usman, A. (2010). The impact of service quality on students' satisfaction in higher education institutes of Punjab. *Journal of Management Research*, 2(2), 1-11.
- Martirosyan, N. (2015). An examination of factors contributing to student satisfaction in Armenian higher education. *International Journal of Educational Management*, 29(2), 177-191. https://doi.org/10.1108/IJEM-09-2013-0143
- Mavondo, F. T., Tsarenko, Y., & Gabbott, M. (2004). International and Local Student Satisfaction: Resources and Capabilities Perspective. *Journal of marketing for higher education*, 14(1), 41-60. https://doi.org/10.1300/J050v14n01_03
- Moore, A. (2006). *Schooling, society and curriculum*. Routledge. https://doi.org/10.4324/9780203015162
- Napitupulu, D., Rahim, R., Abdullah, D., Setiawan, M. I., Abdillah, L. A., Ahmar, A. S., Simarmata, J., Hidayat, R., Nurdiyanto, H., & Pranolo, A. (2018). Analysis of Student Satisfaction Toward Quality of Service Facility. *Journal of Physics: Conference Series*, 954, 012019. https://doi.org/10.1088/1742-6596/954/1/012019
- Navarro, M. M., Iglesias, M. P., & Torres, P. R. (2005). A new management element for universities: satisfaction with the offered courses. *International Journal of Educational Management*. https://doi.org/10.1108/09513540510617454
- Nguyen, Q. L. H. T. T., Van, N. D., Mong, C. H. U. N. N., & Hong, T. V. (2020). Application of Total Quality Management in Developing Quality Assessment Model: The Case of Vietnamese Higher Education. *The Journal of Asian Finance, Economics and Business*, 7(11), 1049-1057. https://doi.org/10.13106/JAFEB.2020.VOL7.NO11.1049
- Nsiah-Gyabaah, K. (2015). The missing ingredients in technical and vocational education in meeting the needs of society and promoting socio-economic development in Ghana.
- O'Brien, P. N. (2004). Challenges to higher education in Cambodia: Access, equity of access and quality and relevance. Unpublished.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of marketing research*, *17*(4), 460-469. https://doi.org/10.1177/002224378001700405
- Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal of marketing*, 63(4_suppl1), 33-44. https://doi.org/10.1177/00222429990634s105
- Onwuegbuzie, A. J., & Leech, N. L. (2007). A Call for Qualitative Power Analyses. *Quality & Quantity*, 41(1), 105-121. https://doi.org/10.1007/s11135-005-1098-1
- Pupat, N. (2010). The Impact of Organizational Development Intervention on Service Process for Curriculum Development at Assumption University, Thailand: A Case Study. AU-GSB e-JOURNAL, 3(2). http://www.assumptionjournal.au.edu/index.php/AU-

GSB/article/view/418

- Sallis, E. (2002). *Total quality management in education* (3rd ed.). Routledge. https://doi.org/10.4324/9780203417010
- Schertzer, C. B., & Schertzer, S. M. B. (2004). Student Satisfaction and Retention: A Conceptual Model. *Journal of marketing for higher education*, *14*(1), 79-91. https://doi.org/10.1300/J050v14n01 05
- Segars, A. H., & Grover, V. (1993). Re-Examining Perceived Ease of Use and Usefulness: A Confirmatory Factor Analysis. MIS

quarterly, 17(4), 517-525. https://doi.org/10.2307/249590

- Sharma, A., Van Hoof, B., & Pursel, B. (2013). An assessment of reading compliance decisions among undergraduate students. *Journal of the Scholarship of Teaching and Learning*, 13(4), 103-125.
- Sharma, G. (2017). Pros and cons of different sampling techniques. International journal of applied research, 3(7), 749-752.
- Sohail, M. S., & Shaikh, N. M. (2004). Quest for excellence in business education: a study of student impressions of service quality. *International Journal of Educational Management*.
- Soper, D. S. (2015). A-priori sample size calculator for structural equation models [Software]. *Available from http://www.danielsoper.com/statcalc.*
- Sothy, K., Madhur, S., & Chhem, R. (2015). Cambodia Education 2015: employment and empowerment. Cambodia Development Resource Institute. https://cdri.org.kh/wpcontent/uploads/edu2015.pdf
- Ten Eyck, R. P., Tews, M., & Ballester, J. M. (2009). Improved Medical Student Satisfaction and Test Performance With a Simulation-Based Emergency Medicine Curriculum: A Randomized Controlled Trial. *Annals of emergency medicine*, 54(5), 684-691.

https://doi.org/10.1016/j.annemergmed.2009.03.025

- Tilak, J. B. (2003). Higher education and development. In International Handbook of Educational Research in the Asia-Pacific Region (pp. 809-826). Springer.
- Tithsatya, D. (2017). Higher Education in Cambodia: Current Situation, Problems and Solutions. GLOBAL JOURNAL FOR RESEARCH ANALYSIS, VI(VI).
- Ullman, J. B. (2001). Structural equation modeling. In *B. G. Tabachnick, & L. S. Fidell (Eds.), Using multivariate statistics* (pp. 653-771). Pearson Education.
- Vicheth, S., & Soveacha, R. (2013). Anatomy of higher education governance in Cambodia. CDRI Working Paper Series, No. 86.
- Walker, K. (2012). Cambodia's Postgraduate Students: Emerging Patterns and Trends. Asean Journal of Teaching and Learning in Higher Education (AJTLHE), 4(1), 1-13. https://ejournal.ukm.my/ajtlhe/article/viewFile/10465/3468
- Webb, M. S., Coccari, R. L., & Allen, L. C. (1997). Doctoral Programs: What Factors Attract Students. *Journal of marketing* for higher education, 7(4), 73-85. https://doi.org/10.1300/J050v07n04_06
- Williams, J. H., Kitamura, Y., & Keng, C. S. (2014). Higher Education in Cambodia: Expansion and Quality Improvement. *Higher Education Forum*, 11, 67-89. https://doi.org/10.15027/37025
- Witowski, L. L. (2008). The relationship between instructional delivery methods and student learning preferences: What contributes to student satisfaction in an online learning environment? [Capella University]. https://www.learntechlib.org/p/120157/
- Xiao, J., & Wilkins, S. (2015). The effects of lecturer commitment on student perceptions of teaching quality and student satisfaction in Chinese higher education. *Journal of Higher Education Policy and Management*, 37(1), 98-110. https://doi.org/10.1080/1360080X.2014.992092