

The Influence of University Image on Student Satisfaction and Loyalty in Higher Education

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Abstract: The purpose of this paper is to examine the influence of image on student satisfaction and loyalty at Faculty of Management Studies and Commerce (FMSC), University of Sri Jayewardenepura, Sri Lanka. In order to achieve the objectives of the study, a model reflecting the impact of image on student satisfaction and loyalty is applied. Population of the study was second year management undergraduates of the FMSC. The model is tested through use of structural equations and the final sample is of 250 out of 1000 students from second year. 250 students were selected as sample by using stratified sampling technique.

The findings of the study indicated that image of the university has greater direct impact on students' satisfaction and less influence on student satisfaction through expectation of the degree program. Further, results confirmed that direct influence from image to loyalty is less but also significant in Sri Lankan context. Its indirect influence is greater and significant, in the formation of loyalty through students' satisfaction. All the Goodness of Fit (GFI) indices are at acceptable levels. Thus, the satisfaction of students and loyalty seem to reflect quite well from the above construct; image and expectation.

This results of the study shed light on the higher education sector in Sri Lanka student satisfaction formation process, revealing that image can influence to improve student satisfaction and loyalty. Thus, it is possible to suggest that to measure and understand university image is an essential because of its greater influence on the student satisfaction and loyalty formation process.

Since this study successfully applied a SEM to identify the relationship among construct, it has hopefully opened up avenues for other researchers to carry out such behavioral studies with larger sample sizes by applying R program with SEM analysis.

Image, expectations, student satisfaction, loyalty, Sri Lanka

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I. Introduction

Sustainability of the universities among student community is depending on many factors. The important matter is that universities need to think global changing condition such as globalization and digital revolution, because all communities like students and employers do so. Due to this fact, increasingly, universities are facing more and more competition from private and public educational institutions at domestic and international level all around the world.

On the top of these challengers, universities are also facing some other issues like quality of education, constructive environment, and possibility of declining enrolments. All these factors can affect students' choice of admission, satisfaction and loyalty levels. Bowden (2011) showed that student–university relationship mainly depends on the quality of psychological and emotional bonds with the institution as well as high levels of satisfaction with its performance. Especially in service organization, measuring outcome is also vital to ensure success of the organization. Customers play a significant role on the performance of a business. Customers will judge and differentiate the level of service provided by an organization with compared to other organizations that offer the same product.

Hansemark, and Albinsson, (2004) explained that satisfaction is an overall customer attitude or behavior towards a service provider, or an emotional reaction towards the difference between what customers expect and what they receive, regarding the fulfillment of some desire, need or goal. La Barbera and Mazursky, (1983) indicated that in order to achieve customer satisfaction, organizations must be able to satisfy their customers' needs and wants.

Researchers have identified that higher educational institutions are as a service industry and as service organization; higher educational institutions are dealing with a same position which places greater emphasis on meeting the expectations and needs of their students as main customers. According to Hill (1995), with some controversy, students can be seen as the primary customers of Higher Education Institutes (HEI). Douglas et al., (2006) revealed that retention and reduce decay, which have a positive effect on students' number, rely on student satisfaction.

Zemke (2000) indicated that loyalty as a key factor for the success of every business including universities. He highlights the need for extending the duration of the relationship with the end users. Increased student loyalty as a result of the efficiencies cause not only increased life-time revenue of tuition from students but also provide some synergy for admission through word of mouth recommendation. Helgesen and Nettet (2007) found that loyalty is positively related to student satisfaction, which increases performance and profitability in the long run.

In this paper, the main objective was aimed to construct a comprehensive model of student satisfaction and loyalty through structural equation modeling. It aims to describe the extent to which students' satisfaction is influenced by university's image, facility, education and services. Further, it was expected to estimate factors driving student satisfaction that leads to their loyalty.

II. Overview of the Literature

Oliver and DeSarbo, (1989) explained student satisfaction, with respect to education, as the favorability of a student's subjective evaluations of the education outcomes and experiences. Similarly, customer loyalty was also defined in different ways by different researchers. Oliver (1997) described customer loyalty as "a deeply held commitment to rebuy a desired product or service continuously in the future. Lam et al. (2004) identified customer loyalty in a different way, as a buyer's overall attachment or deep commitment to a product, service, brand, or organization. In higher education institutions, their successes also depend upon the loyalty of their former students and current students as well. Therefore, according to Henning-Thurau et al. (2001), student loyalty is a result of both during and after students' academic period in a higher education institution. For higher education institutions, student loyalty is becoming an important strategic decision due to numerous factors, such as increased performance-based public funding, increased student mobility, digital revolution and also increased global competition (Helgesen and Nettet, 2007).

Shahsavari and Sudzina (2017) considered as monitoring and managing customers satisfaction are the important factor to get benefit from today's competitive environment. In higher education settings, the main customers are the students and examination of satisfaction and loyalty of students is very important. Thus, researchers have paid their attention to measure the strength of determinants of students' satisfaction and the importance of antecedents in students' satisfaction and loyalty in Denmark. They employed the structural equation model to evaluate student satisfaction and loyalty. Results of the study revealed that the significance of antecedents in students' satisfaction and loyalty at Danish universities in Denmark. They found that the university image and student satisfaction are the antecedents of student loyalty with a significant direct effect, while perceived value, quality of hardware, quality of software, expectations, and university image are antecedents of student satisfaction.

Palacio et al. (2002) examined the impact of university image on Spanish university students. The results revealed image of the university has a significant impact on student satisfaction.

Butt and Rehman (2010) studied the determinants of students' satisfaction in higher education and their influence on level of satisfaction in Pakistan universities. The study found that students are satisfied with higher education; however they revealed that level of satisfaction is different from male to female students, owing to socioeconomic setting in the country. They concluded that learning environment and classroom facilities enhance the students' satisfaction in higher education and are significantly and positively related to students' satisfaction. However, they emphasized that teachers' expertise is the most influential factor among all the variables in the study.

Malik et al. (2010) examined the impact of service quality on students' satisfaction in higher education institutes of Punjab by employing the structural equation modeling technique. The results revealed that in addition to the learning environment there are few essential facilities such as the well managed cafeteria, parking facilities, play grounds and other arrangements of physical and mental health e.g. clubs, gymnasiums etc.

Temizer and Turkyilmaz (2012) developed a student satisfaction index model for the higher education institutes in Turkish. Researchers have evaluated student satisfaction with respect to different aspects. In this study, they considered brand image of the school, expectations, perceived quality, perceived value, overall satisfaction and loyalty degree of students. According to the results, it revealed that perceived quality and image have significant strong impact on student satisfaction. Eskildsen et al. (1999) found that image is really the one that has the most influence on student loyalty in higher education.

Yusoff et al, (2015) identified 12 factors that significantly influence students' satisfaction in Malaysian higher education setting. The results of the ANOVA tests revealed that five factors have found significant impact on student satisfaction; namely, student support facilities, class sizes, classroom environment, business procedures, and relationship with teaching staff.

Alvis and Raposo (2006) investigated the influence of university image on student satisfaction and loyalty in Portugal by employing structural equations. The findings of the study indicated that university image

has both direct and indirect effect on student satisfaction and loyalty. As well, the study found significant relationships with value and quality perceived with students' satisfaction.

Nguyen and Leblanc, (2001), Bloemer and de Ruyter, (1998) found that university institutional image and reputation strongly affect retention and loyalty. Meantime, they have shown that service quality is both directly and indirectly related to loyalty via satisfaction.

Eskildsen et al. (1999) revealed that image is really the one that has the most influence on student loyalty in higher education.

Several factors affect student satisfaction which had discussed in previous studies. Accordingly, these researchers have identified that student satisfaction is caused by perceived quality, perceived value, expectations' of students, facilities provided by the university, loyalty level and image of the university. Some of the factors are the antecedents of overall students' satisfaction. Furthermore, loyalty is a concept that has been inadequately applied in higher education.

Thus this study intends to test a conceptual model with more constructs of the student satisfaction and loyalty in higher education system in Sri Lanka by using different directions. The model assumes that the dependent variable as student loyalty has two independent variable; student satisfaction and university image linked to it. The model also checks for the indirect impact of financial support, environment of the university, facilities provided by the university, expectation of degree program and services provided by the university on loyalty through the mediating variable called student satisfaction.

In this manner, given the lack of studies in higher education in Sri Lanka, the following hypotheses have been established to achieve study objectives and to contribute towards the development of knowledge in higher education.

H1. University image has a direct and significant influence in the student satisfaction

H2. University image has a direct and significant influence in student loyalty.

In order to achieve proposed objectives, this study was adopted the above mentioned hypotheses in accordance with literature. Correspondingly, to measure satisfaction and loyalty, it is required to taking into consideration their antecedents and consequences. Accordingly, the model employed in this study was that shown in Figure 1.

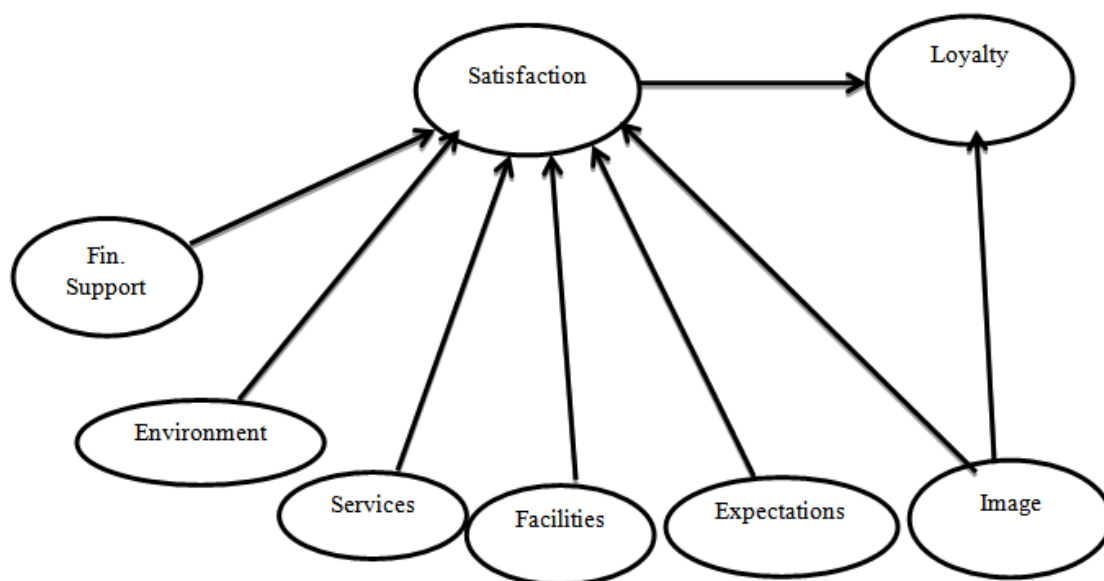


Figure 1: Conceptual Model for explaining Students' Loyalty

Sample and Analysis

At present, there are 15 public universities functioning in Sri Lanka in higher education sector which produce around 26,000 graduates annually to the economy (Sri Lanka University Statistics, 2017). Given the technical impossibility of including all the universities of higher education in Sri Lanka, an option was made to restrict this study to one of the public universities in Sri Lanka, namely the University of Sri Jayewardenepura.

Students of Faculty of Management Studies and Commerce (FMSC) at University of Sri Jayewardenepura (USJP) are taken as population of the study. The FMSC is the largest faculty in terms of number of students in the university system in Sri Lanka and was founded in the 1960s and has a proud history and heritage as the pioneering Faculty for Management Education in Sri Lanka. As the largest faculty in Management Studies and Commerce, it currently enrolls more than 5,000 internal undergraduate students.

Students that enter the University come from a wide range of social backgrounds and all over the country. These give them different life experiences, life styles, different educational opportunities, expectations, needs and diverse academic potential.

According to the University grant commission records of student admissions, there were 1042 registered students for 2016/2017 academic year (Table 1). Based on this background, we decided to select respondent from the FMSC for this study.

Table 1 Undergraduate Student Admission by Academic Stream

Academic Stream	USJP	Total
Arts	876	8702
Management & Commerce	1042*	4961
Medicine	160	1306
Science	991	5797
Engineering	120	1808
Technology	322	2016

Source : University Grant Commission, Sri Lanka (Academic Year 2016/2017)

*Total number of students of the Management & Commerce stream for all public universities 4961

After 2002, the FMSC had introduced significant changes in the traditional teaching and learning system within the faculty. It has had a tradition of enrolling fulltime students an annual basis before introducing new system. However, since 2002 there has been a shift to accommodate student under the semester system. The difference between the conventional status and the semester basis is time when lectures are conducted, medium of instruction, evaluation system, size of the class, way of teaching, number of subjects, course content, attendance policy, structure of degree programs and subject combinations, etc. The students in public universities are coming from different areas and with various backgrounds. At present-day this variety is much more complex than before in Sri Lankan culture.

Parameswaran and Glowacka (1995) indicated that higher education institutions need to maintain or build a distinct image to get benefits from a competitive market. At the same time, they highlighted that image is one of the main influences on student willingness to apply for enrolment in a particular university. Not only that it is important when donors are considering endowments or companies selecting an institution to undertake contracted research and development. By considering all these factors, the study is initiated to examine the influence of selected factors on students' satisfaction and loyalty at the FMSC in the USJP in Sri Lanka.

The sample consisted of 250 students from 2nd year undergraduate student about 1000 population of the second year at the FMSC. The 250 respondents were selected as sample using stratified sampling technique. The data were collected through structured questionnaire via Google form.

The questionnaire contained 41 questions, 36 of that pertaining to the proposed conceptual framework, 5 were for demographics. The questions about satisfaction and loyalty were placed at the end of the questionnaire. A 7-point Likert scale was used where 1 expresses highly satisfied and 7 expresses highly dissatisfied. 5 point scales, 7 point scales or 10 point scales are all comparable for analytical tools such as Confirmatory Factor Analysis (CFA) and structural equation models (SEM).

In order to reduce eventual questionnaire errors, a pre-test of the questionnaire was organized with 25 undergraduate students. The pre-test results showed that the questionnaire vocabulary, content as well as its structure was easily understood by students. This model contains a number of latent variables and mediating variables, thus, SEM is considered as an appropriate technique for the analysis. We used R version 3.5.1 and Latent Variable Model (lavaan' version 0.6-3). After testing several structural equation models, we reached to the following model as it was reported the highest goodness of fit.

In the SEM approach, confirming the model fit is very important. The following important measurements were taken into consideration for validating the model fit which are reported in Table 2. The goodness-of-fit index (GFI) value gives us the data variance percentage which is explained by the model. Thus, for this study, it explains a quite elevated percentage of data variance: about 91 per cent indicating that its acceptability can be considered quite well.

After the CFA analysis and confirming the acceptability of the measurement model, there then proceeded an estimation of the structural model. The estimated final model is that shown in Figure 2.

Table 2. Fit measures for the final models

Model	GFI	AGFI	CFI	TLI	RMSEA	SRMR	AIC
Loyalty	0.911	0.836	0.973	0.960	0.073	0.036	4428.368

Source: Author Compiled

Table 3.Latent Variables

	Estimate	z-value	P(> z)
Image			
q1	0.117	6.423	0.000
q2	0.131	6.802	0.000
q4	0.267	8.542	0.000
Exp			
q19	0.433	6.941	0.000
q20	0.339	6.077	0.000
q21	0.407	7.411	0.000
Sat			
q31	0.086	4.913	0.000
q32	0.126	6.325	0.000
Loyalty			
q34	0.172	6.676	0.000
q35	0.359	8.943	0.000

Source: Author Compiled

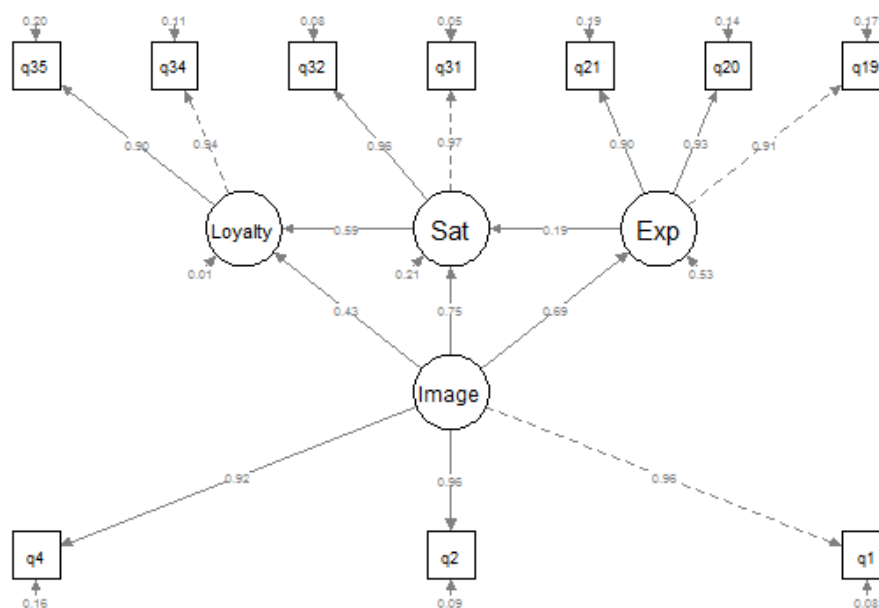


Figure 2 Final Model of this Study

Since all the estimated coefficients are statistically significant as shown in Table 3 and the model presents a very good extracted variance (Table 2), henceforth we refer only to the final model which was focused in this paper, namely, expectation, image, satisfaction and loyalty.

As can be observed in Table 4 it was found that the satisfaction construct presents a high level of variance (93 per cent) explained by its antecedents and that image was the greatest direct influence on satisfaction (0.78) while also bearing a considerable influence on loyalty (0.44). Accordingly, image of the university explains 78 per cent variance of students' satisfaction directly in the FMSC. As well as 16 per cent variances of students' satisfaction is explained by expectation of the program. In turn the influence of image is greater when we analyse the direct and indirect effects of the model. Image and satisfaction were significant at 0.01 per cent level while expectation was significant at 5 per cent level. Then the study accepted the both hypothesis one and two. Accordingly, both University image and expectation from the program have direct impacts on students' satisfaction in Sri Lankan context.

Table 4.Regression Estimates

Structural equations	Image	Expectation	Satisfaction
Satisfaction	0.775 (10.534)***	0.158 (2.369)**	
Loyalty	0.441 (3.304)***		0.583 (4.145)***
Expectation	0.857 (13.409)***		

Source: Author Compiled

In parentheses z value

*** significant at 1 percent level

**significant at 5 percent level

III. Conclusion

The main objective of the study was to identify the impact of image of university on students' satisfaction and loyalty with special reference to University of Sri Jayewardenepura in Sri Lanka.

This study proved that the construct that most influences on student satisfaction in higher education particularly in the FMSC is image of the university. It found that the image has a direct effect of 0.78 and further indirect effects to loyalty level also. Therefore, the total influence of perceived image over student satisfaction is of 0.93. In other words, in terms of total effects, if the image of the institution rises or falls by a unit in terms of students' satisfaction increases or decreases in a proportion of 0.93. Meantime, image has a less but significant direct influence on loyalty (0.44) an impact that becomes greater through indirect influence (0.58). Thus, if image of the university rises or falls by a unit students' satisfaction increase or decrease by a proportion of 0.58. This finding was similar to results of Alves and Raposo (2006 and 2010). Further, these results illustrated that from all the antecedents, the image variable is the one which has the most influence in the student satisfaction, similar to the findings of Kristensen et al. (1999) and Cassel and Eklof (2001).

This examination sheds light on the higher education sector and proved that image of the university play an important role in retaining current students and attracting new students as well. As per the findings, the study recommends that university should take necessary action to maintain and enhance the image, and then it will improve students' satisfaction and students' loyalty towards the university. Thus, it is likely to say that to measure and understand university image is an essential because of its influence over the student satisfaction and loyalty formation process. If higher education institutions have to compete through image, the first academics as well as administrative staff should take necessary steps to measure the university image held by students and should be to ascertain how the constructed image is formed. And also they have to understand how it can be modified in order to better reflect the intended image.

In this way, this research contributes towards deepening the knowledge about university image and its importance for higher education institutions to attract more students.

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