International Journal of Auditing and Accounting Studies
ISSN: 2582-3272 • Volume 4; Number 2; 2022 : pp. 183-209
https://DOI: 10.47509/IJAAS.2022.v04i02.02

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Revisiting Navarro *et al.*: A Double Tilt View-Students' Satisfaction with Professional Accounting Education

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ARTICLEINFO

Received: 12 June 2021
Revised: 18 August 2021 & 30 March 2022
Accepted: 5 April 2022
Online: 05 October 2022

Keywords:
Professional Accounting Education, Students' Satisfaction, Students' Need, Students' Loyalty.

To cite this paper:
Nagalingam Nagendrakumar, Naduni Madhavika, Yuresh Nadishan, Zakiya Ameen, Kasuni Kulatunga, Anuththara Perera and Chamika Perera (2022). Revisiting Navarro *et al.*: A Double Tilt View-Students' Satisfaction with Professional Accounting Education. *International Journal of Auditing and Accounting Studies.* 4(2), 183-209.

ABSTRACT

The purpose of this study is to investigate the issue of why a significant gap exists between the number of students enrolled and the number of students who pass out as professional accountants taking Navarro *et al.* (2005) model as the theoretical lens. The study adopted a deductive approach, stratified random sampling, and distributed 500 questionnaires. The response rate was 80%. The study found that the course assessment and institutional image, teaching methods, teaching staff, course organisation and infrastructure facilities, and institutional administration, and efficiency significantly impact the student satisfaction. Next tilt argues that the students' satisfaction significantly impacts the students' loyalty. Also, the study extends Navarro *et. al.*'s model by adding two more constructs *viz.* commitment as alumni and commitment as a student. The findings have practical implications for Professional Accounting Education Institutions (PAEIs) which seek to retain their students. The students' needs and the students' loyalty are the two tilt of students' satisfaction which lower students' intentions to leave by nurturing their expectations met by the PAEIs.

1. INTRODUCTION

The lack of accountants in Sri Lanka is escalating to a national level issue, resulting in the increasing loss of market share of local accounting bodies due to the high failure rates, and the dropout rates of these institutions being the cause for the rising interest of

many researchers. However, as students are the service recipients of these educational institutions, their satisfaction should be a significant area of concern for all Professional Accounting Education Institutions (PAEIs). These institutions must pay more attention to student needs and ensure that not only the tuition fees but also the time and effort vested is worth it, despite the strict policies imposed by the institutions. These institutions must focus more on student satisfaction with the programs they offer, while working to gain their loyalty, to survive in the market with the increasing competition successfully.

The Institute of Chartered Accountants of Sri Lanka (CASL) and Institute of Certified Management Accountants of Sri Lanka (CMASL) are the PAEIs established by Act of Parliament No 23 of 1959 and No 23 of 2009 respectively in Sri Lanka. The CASL is solely responsible for setting accounting and auditing standards for the nation. Besides Nagendrakumar (2017) argues that all the accounting standards are mimicked from International Financial Reporting Standards (IFRS)/International Accounting Standards (IAS). It is worth to note that the CA is the only authorised qualification that is empowered to practice as the auditors of public limited companies. The CMASL is responsible for the development and promotion of management accounting studies, the establishment of management accounting standards, and the advancement of the management accounting profession in Sri Lanka.

Having discussed the above, Nagendrakumar (2017) and Wijewardena and Yapa (1998) argue that Sri Lanka has been following the old British system of producing accountants through PAEIs, which has resulted in an inadequate number of accountants to meet the demands of the domestic labour market. There have been many criticisms of the policies of the PAEIs regarding examination difficulty, limited membership, and failure rates. Yapa (2006) argues that the CASL was established to elevate the status of the accountancy profession, along with fulfilling the objectives of the government. According to Wijewardena and Yapa (1998), the examination failure rate in CASL is exceptionally high. Hence, it has failed to cater to the demands of professional accountants in the market by pursuing an 'occupational closure'. The CASL believes the elite social status by maintaining a high class and high prestige in the profession by offering fewer numbers of qualified professional accountants. The present and past students blame the CASL as one of the most challenging examinations to get through when compared with other professional accounting programs.

A significant level of growth in professional accounting education has been identified from around the world, which is reflected in Sri Lanka as

well. Though the intake of students may be considerably higher in the local PAEIs, the students who ultimately graduate as fully qualified accountants are comparatively low. According to the annual reports published by CASL, there is a considerable gap between the number of existing students and the number of new pass-out students (CASL, 2018). In 2018, the student base of the CASL was 38,244, but only 327 students were offered associate membership. According to the annual reports published by CMASL, there is a considerable gap between the number of existing students and the number of new pass-out students (CMASL, 2018). In 2018 the student base of CMASL was 16,000, but only 185 students got the associate membership. This phenomenon is common for the rest of the world PAEIs as well. This has paved the way for students to drop out since they are not satisfied with the way the course is administered.

1.1. Research gap of the study

There are only a small number of research conducted on students' satisfaction with higher education institutions in the Sri Lankan context. Pathmini *et al.* (2014), Weerasinghe and Dedunu, (2017), and Weerasinghe and Fernando (2018) conducted studies on student satisfaction with state universities, whereas Premkumar and Sooriyabandara (2017) and Kajenthiran and Karunanithy (2015) conducted research to identify student satisfaction with private higher education institutions. Also, it is noteworthy to point out that there are many past studies conducted specifically on the CASL (Wijewardena and Yapa, 1998; Yapa, 2006; Balachandran, 2007; Ukwatte and Yapa, 2013), condemning the institution's practice of supplying only a limited amount of fully qualified accountants to the market and highlighting the threat to the sustainability of the profession. However, it is firmly argued that there is no research that has comprehensively studied this issue from the students' perspective.

Therefore, the objective of this study is to address the research gap by identifying the factors affecting student satisfaction with domestic professional accounting education institutions in Sri Lanka. This study provides a double-barreled view of students' satisfaction enrolled in PAEIs.

The rest of this paper is lined up with an overview of the literature, theoretical lens of the study, research design, results and discussion, implications, and conclusion.

2. OVERVIEW OF THE LITERATURE

This section first, examines the factors affecting the students' satisfaction in the higher education context, and then it discusses student loyalty.

2.1. Factors affecting students' satisfaction in the higher education context

According to Elliott and Healy (2001), students' satisfaction is a short-term attitude resulting from an evaluation of students' educational experience, services, and facilities. Elliott and Shin (2002) argue that the favourability of students and the personal evaluation of various outcomes and experiences are linked to their educational activities. Accordingly, it is argued that attracting and retaining students to higher education institutions should identify the level of students' satisfaction and fulfil their expectations (Elliott & Healy, 2001; Navaro *et al.*, 2005). This study further argues that students' satisfaction enables higher education institutions to develop a platform to monitor how effectively they surpass the expectations of their students. Elliott (2002) also advocated a non-academic dimension, such as 'student-centeredness' and 'instructional effectiveness' as the critical dimensions of students' satisfaction and pointed out that the commitment toward student satisfaction must be expressed in the strategic plans (mission, goals, and objectives) of higher education institutions since it positively affects the outcome of students. Numerous studies have revealed that the image of the higher education institution significantly impacts student satisfaction (Rashed & Surya, 2019; Weerasinghe & Fernando, 2018; Wong, Tong, & Wong, 2014; Nagendrakumar & Niruba, 2014; Alves & Raposo, 2007; Navaro *et. at.*, 2005). Neumann and Neumann (1981) argue that there is a strong negative relationship between the school year of the student and the satisfaction with tests and assignments. Poon (2015), highlights that student assessment had a positive relationship with the overall student satisfaction. Many studies argue that teaching methods as the significant influencers of students' satisfaction (Rashed & Surya, 2019; Masserini, Bini, & Pratesi, 2019; Nagendrakumar & Niruba 2014; Navaro et.al. , 2005). Teaching staff are considered to be the significant assets of a higher educational institutions and hence treated as the core to student satisfaction (Tsarenko & Mavondo, 2017; Navaro *et. al.*, 2005). Many studies have concluded that the quality of teaching has a significant impact on satisfaction (Nagendrakumar & Niruba, 2014; Douglas, Douglas, & Barnes, 2006; Navaro *et.al.*, 2005). Lenton (2015) emphasized that the student-staff ratio is a considerable determinant of students' satisfaction. Students, as the service recipients, play a vital role in the existence and progress of higher education institutions (Thomas & Galambos, 2004). It is argued that the results of the studies on students' satisfaction can be used as guidelines to enroll and retain the right number of students to survive in the competitive markets. Various studies have concluded with different results on how infrastructure/facilities impact student satisfaction. Many argue that library facilities, laboratory facilities, computer and IT facilities, and

learning environments are the significant factors influencing the students' satisfaction (Childers, Williams, & Kemp, 2014; Sapri, Kaka, & Finch, 2009; Mavondo, Tsarenko, & Gabbott, 2004). According to Tsarenko and Mavondo (2017), library services and education technology can be identified as significant antecedents to students' satisfaction. The factor of administration is logically presented as a potential significant determinant of students' satisfaction. The administration is a factor considered by few studies to understand student satisfaction (Weerasinghe and Fernando, 2018; Nagendrakumar and Niruba, 2014; Navaro *et. al*, 2005). Besides, Tunio, Abbasi, and Soomro (2017) and Van Deuren and Lhaden (2017) highlight that administrative staff is the key predictor of students' satisfaction.

2.2. Institutional image, assessment and students' satisfaction

Image is also another factor that has been used to measure student satisfaction, especially in the Sri Lankan context. According to the pilot study conducted on students who intend to join regional universities, it was mentioned that students give priority to reputed and well established universities like the University of Sri Jayewardenepura, University of Colombo, and University of Kelaniya (Weerasinghe & Dedunu, 2017). Another study conducted by Weerasinghe and Fernando (2018) on student satisfaction in state universities in Sri Lanka concluded that university image had the highest significance on student satisfaction. Universities are not just a place for higher education and are now considered to be a business that attempts to build their image and position them in a good rank (Azoury, Daou, & Khoury, 2014). There is high competition for students, teaching staff, and research staff and funding sources and if the university has a good image, it would be able to face this competition more successfully (Azoury, Daou. & Khoury, 2014). According to a study conducted in a Norwegian university on the impact of image on student loyalty, it was concluded that image had no direct impact on student loyalty but student satisfaction and image together had a direct impact on student loyalty (Helgesen & Nesset, 2007). A study conducted in Hong Kong, by Wong, Tong, and Wong (2016), highlights that it is a norm to join institutions that have a good reputation and brand name by students who pass-out from secondary school. The study further highlights that there is a positive relationship between the image of the institution and student satisfaction (Wong, Tong, & Wong, 2016). A study conducted on the satisfaction of international students studying in Australia states that internal factors like the quality of teaching, the usage of technology when teaching, and both the local and international image of the institution impacts the perception

of students regarding the academic standards of the institution (Arambewela & Hall, 2013).

The student assessment methods include formative and summative assessments which comprise assignments, quizzes, graded discussions, and Mid and Final term exams (Zaheer *et al.*, 2015). In the research conducted by Neumann and Neumann (1981), it was identified that there was a strong negative relationship between the school year of the student and their satisfaction with tests and assignments. Therefore, as students advance to the final years more attention needs to be given in order to satisfy them. In the study conducted on satisfaction with real estate students by Poon (2015), it was concluded that student assessment had a positive relationship with overall student satisfaction.

The above argument leads to the first hypothesis as follows:

H1: Professional accounting students' satisfaction is positively and significantly affected by the course assessment and institutional image in domestic accounting education institutions.

2.3. Teaching methods and students' satisfaction

Teaching method and student satisfaction is another factor impacting student satisfaction that is widely discussed in the literature. In order to determine the relations between student satisfaction with teaching quality, research was conducted in a Romanian University among 204 third-year students, and it was concluded that there are positive and negative factors relating to teaching quality that influenced student satisfaction. Eliminating or reducing the negative factors, such as boredom, superiority, ineffective teacher-student communication, being biased during evaluation, revenge, insufficient interest in teaching, etc. improves student satisfaction (Roman, 2014). The aforesaid argument leads to the second hypothesis as follows:

H2: Professional accounting students' satisfaction is positively and significantly affected by the teaching methods in domestic accounting education institutions.

2.4. Teaching staff and students' satisfaction

The teaching staff was another factor that was used to analyze student satisfaction as identified in past studies. The teaching staff is considered by Tsarenko and Mavondo (2017) to be the major asset of a university and the core of student satisfaction. Further, the research by Tsarenko and Mavondo (2017) highlights that lecturing is not a high profile career in countries such as Australia, as opposed to Asian countries where students

are highly dependent on lecturers and the position and responsibility of lecturers of this form of culture will decide student satisfaction. There had been an increasing number of researches conducted on student and faculty evaluation wherein Neumann and Neumann (1981) students rated their teachers. Consequently, during the consumption of education or after it, students who are satisfied will engage in good word of mouth or would request the same lecturer for other courses, and those who are dissatisfied would spread negative word of mouth and would make complaints to the head of the department or the dean. A study conducted on student satisfaction with college instruction found four factors that accounted for the variation in the satisfaction of students, namely presentation and lectures, tests and assignments, student-lecturer relationship, and the methods of teaching. In order to increase student satisfaction, each of the factors needs to be developed separately and one way to achieve this is to train the teaching staff (Neumann and Neumann, 1981). A study was conducted on the emotions of students in the classroom states instructors as a social environment factor that influences the emotions of students. The instructor makes efforts to be more approachable to students in ways, such as greeting the students and engaging in some casual talk. Also, the instructor makes a lot of effort in delivering the lecture to ensure it is more enthusiastic and pleasant for the students. The result of the study highlights that lecturers' attitude has a significant impact on student satisfaction and it could determine if the student would choose the same instructor for another class (Childers, Williams, & Kemp, 2014). According to the study by Douglas, Douglas, & Barnes (2006), it was concluded that the quality of teaching had a significant impact on the satisfaction and dissatisfaction of students compared to other factors. Thus, students were ready to tolerate any deficiencies in the physical goods including wobbly tables, as far as the teaching was at an acceptable level. Overall satisfaction with academic instructors was highly correlated with overall students' satisfaction (DeBourgh, 2003). The argument above leads to the third hypothesis as follows:

H3: Professional accounting students' satisfaction is positively and significantly affected by the teaching staff in domestic accounting education institutions.

2.5. Infrastructure facilities and students' satisfaction

Certain factors impacting student satisfaction have been used by most past studies to measure student satisfaction. One factor is infrastructure/facilities. Different studies on student satisfaction have concluded with different results on how infrastructure/facilities impact student satisfaction.

According to the study conducted by Hill and Epps (2010) on the impact of classroom environment on student satisfaction, it was concluded that students who were in the upgraded classrooms that had tiered seating, proper classroom lighting, quality desks, and seats, and individual computers were more satisfied than the students who were in the standard classrooms which did not have such facilities and the results highlighted that students prefer classrooms that were comfortable and had proper seating. Hussain *et al.* (2014) described that the satisfaction level of students provides a more accurate picture of the physical facilities and the environment provided by higher education institutions. Siming (2015) concludes in his findings that campus service and facilities are an important factor to measure student satisfaction and student satisfaction and happiness increase with the increase in these services and facilities. The argument above leads to the fourth hypothesis as follows:

H4: Professional accounting students' satisfaction is positively and significantly affected by the course organization and infrastructure facilities in domestic accounting education institutions.

2.6. Administration and students' satisfaction

The administration is a factor considered by few studies to understand student satisfaction. The study conducted by Weerasinghe and Fernando (2018) concludes that the quality of administration had a statistically insignificant impact on student satisfaction. Further administration quality was defined by Weerasinghe and Fernando, (2018) as "*The qualities of a university administrative staff included reliability, responsiveness, caring attitude, accuracy, fairness, respect, and cooperation with students during the study period at a university*". Administration and personnel quality defines the standards that make it necessary for universities to learn about the needs of the students, communicate with the students, assist in solving their issues, and meet their demands (Saif, 2014). The aforesaid argument leads to the fifth hypothesis of the study as follows:

H5: Professional accounting students' satisfaction is positively and significantly affected by the institutional administration and efficiency in domestic accounting education institutions.

2.7. Determinants of students' loyalty

According to Helgesen and Nesset (2007), students' loyalty can be identified as an important performance measurement in higher education institutions. Jaroslav *et al.* (2012) emphasised that students' loyalty towards higher education institutions may be led by the superior quality of provision of

academic services. Hsu *et al.* (2016) state that loyalty towards higher education institutions was positively and significantly affected by students' satisfaction. Student satisfaction is supposed to be positively related to student loyalty in the Spanish context (Navarro *et al.* 2005). The aforesaid argument leads to the sixth hypothesis of the study as follows:

H6: Professional accounting students' loyalty towards domestic accounting education institutions is positively and significantly affected by students' satisfaction.

This study further argues that the students' satisfaction can be identified as the significant input of students' return and retention with higher education institutions. Stewart, Speldewinde, and Ford (2018) accentuated that students who are highly satisfied with the higher education services will graduate and return to the same university to follow postgraduate degree programs and higher studies, while actively engaging with the university alumni. The aforesaid argument leads to the seventh hypothesis of the study as follows:

H7: Students' loyalty is determined by the intentions of students to return to participate in the courses offered by PAEIs.

It is argued that one of the major factors influencing student loyalty is commitment (Ismanova, 2019). In a study conducted on local students at a USA university, a positive correlation was found between the quality of services and behavioural intentions, such as the commitment as an undergraduate to support the development of the university and the commitment to join the alumni association of the university after graduation (Paswan & Ganesh, 2009). The aforesaid argument leads to the eighth hypothesis of the study as follows:

H8: Students' loyalty is determined through the students' commitment to join the institution after becoming a professional accountant (as an alumni member) for the future development of the institution.

Most of the time, satisfied students engage with positive word of mouth and collaborate with the institution after their graduation (Alves & Raposo, 2007). Most of the time they are committed to joining the faculty as industry consultative board members in assisting the faculty to develop the curriculum and learning material. Also, they advise the faculty on the latest developments in the market and what sorts of products are expected by the industries. This becomes an important input to the faculties to design the curriculum and module outlines much fitting to the industry requirements. The aforesaid argument leads to the ninth hypothesis of the study as follows:

H9: Students' loyalty is determined through the students' commitment to join the institution as a student to give their contribution to developing learning materials of the institution.

Mavondo, Tsarenko, and Gabbott (2004) analysed the relationship between undergraduates' satisfaction with their intentions to recommend their universities to prospective students. The study concluded that a loyal student would spread good word of mouth, retain or remain in the particular institution (Thomas, 2011). The arguments above lead to the tenth hypothesizes of the study as follows:

H10: Students' loyalty is determined through the personnel recommendations done by students.

3. THEORETICAL LENS OF THE STUDY

Based on the arguement so far the researchers adopted the Navarro *et al.* (2005) model as the theoretical lens (Fig. 1) to explore the research gap.

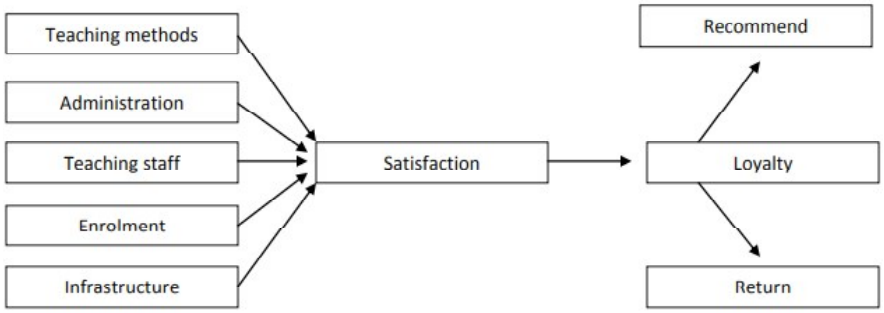

Figure 1: Theoretical Framework

Source: Navarro et ai (2005)

The study purposely omitted the variable enrollment since the number of students enrolled in professional accounting courses, especially in the CASL is getting reduced which is the performance gap of the present study.

4. RESEARCH DESIGN AND METHOD

This study which was conducted in 2020 embraces the positivist paradigm and hence adopts the deductive approach in explaining the phenomenon. The population of this study is 54,244 of which 38,244 students represent the CASL (CASL, 2018), and 16,000 students represent the CMASL (CMASL, 2018). A sample of 500 students was selected from the population. Besides, Weerasinghe and Fernando (2018) propose that stratified random sampling is an appropriate technique to be adopted based on the assumption that

there will be identifiable subgroups from both institutions (*i.e.*, Executive Level, Business Level, Corporate Level). Accordingly, the sample selected from each stratum is CASL – 353 and CMASL - 147. Further, to minimise the outlier effect, the least priority was given to the first-level students of both institutions as they have less experience with the system. The response rate is 80% of the questionnaire distributed.

The survey questionnaire consisted of three sections: first, demographic data of students, second, students' satisfaction with PAEIs, and third, students' loyalty towards their PAEIs. Except for section one, sections two and three were based on a five-point Likert scale, ranging from '1' for very low satisfaction and '5' for very high satisfaction. The analysis was done using IBM SPSS and AMOS 25th version.

5. RESULTS

5.1. Respondents' profile

Out of the valid and completed responses given by professional accounting students, 60.5% were from male students and 39.5% were from female students. Participation of females was considerably lower than the participation of males. It is also noted that 33.8% were between 18-25 years of age, 41.0% were between 26-33 years of age, 24.0% were between 34-41 years of age, 1.0% were between 42-49 years of age, and 0.3 % were between 50-57 years of age. According to the sample profile (see Table 1), a majority of respondents were from the CASL (70.5%), and 29.5% were from CMASL. Therefore, students from CMASL represented approximately one-fourth of the valid and complete responses.

Table 1
Sample profile

Variable	*Frequency*	*Percentage*
Gender		
Male	242	60.5%
Female	158	39.5%
Institution		
CASL	282	70.5%
CMASL	118	29.5%
Age		
18-25 years	135	33.8%
26-33 years	164	41.0%
34-41 years	96	24.0%
42-49 years	4	1.0%
50-57 years	1	0.3%
58-65 years	0	0.0%

Source: Survey data

5.2. Exploratory factor analysis

Exploratory factor analysis was performed to extract the novel factor structure on the 47 variables with the extraction method of principal components and the rotation method of Varimax with Kaiser Normalization (orthogonal rotation). Previous literature had applied the exploratory factor analysis technique to uncover latent factors that impact the determination of the level of student satisfaction with higher education. Kaiser's rule for generating significant factors with an eigenvalue higher than one was applied (Braeken and van Assen, 2017). Bartlett's test of sphericity X2 (1081) = 13873.184, $p < 0.001$, indicated that correlations between items were sufficiently large for principal component analysis and it was confident the application of factor analysis to continue with the further analyses (see Table 2). An initial analysis was run to obtain eigenvalues for each component in the data. The sample size of the study (400 valid responses) exceeded the threshold sample size required to perform exploratory factor analysis. The minimum requirement of a sample size to item ratio (5:1) was also achieved by the study by indicating the sample size to item ratio of 9:1. Furthermore, the minimum inter-correlation between the variables of the questionnaire was approximately equal to the threshold of 0.3.

Table 2
Criteria for conducting factor analysis

	Cut off level	*Current study*
KMO sampling adequacy	≥ 0.7	0.973
Bartlett' test of Significance	P < 0.05	p < 0.001
Minimum communality	≥ 0.4	≥ 0.570
Minimum number of cases	100	400
Sample size to item ratio	5:1	9:1
Minimum inter-correlation	≥ 0.3	≥ 0.3
Eigenvalue	≥ 1	≥ 1

Source: Survey data

Factors that contribute to a significant level of variance greater than or equal to the eigenvalue of one are retained through the employment of Kaiser's rule. Five factors had eigenvalues over one and in combination explained 62.6% of the variance. According to Hair *et al.* (1998), factor loadings 0.4 or lower than 0.4 should be excluded from the analysis. V12 (Satisfaction with the level of willingness of administrative staff to provide assistance) was deleted, as the factor loadings were less than 0.4 (see Table 3). The five emerging factors were labelled as follows: course assessment and institutional image, teaching methods, teaching staff, course

organization and infrastructure facilities, and institutional administration and efficiency. The course assessment and institutional image account for the highest percentage (49.2%) of the total variance and reflect the various aspects related to the institutional image, assessments, and examinations conducted by domestic PAEIs. The second factor (teaching methods) of these five factors, which describes 4.8% of the variance, comprises eight variables related to the teaching methods and techniques followed by PAEIs. The factor of teaching staff contributes 3.8% of the total variance and clusters aspects related to the teaching staff including lecturers' expertise, experience coordination, collaboration, and lecturers' feedback identified through eight variables. The fourth-factor course organization and infrastructure facilities represent 2.6% invariance and combine nine attributes relating to the student enrolment and infrastructure facilities organized by PAEIs. The last factor of this five-factor model which explains 2.3% of the total variance includes aspects relating to the administrative activities continued by the PAEIs measured through six variables.

Table 3
Rotated component matrix

Rotated Component Matrix *Factors*	*Variables*	*1*	*2*	*3*	*4*	*5*
Factor one: Course assessment and institutional image	V11	0.40				
	V32	0.48				
	V35	0.63				
	V36	0.62				
	V37	0.61				
	V38	0.57				
	V39	0.61				
	V40	0.67				
	V41	0.50				
	V42	0.64				
	V43	0.57				
	V44	0.66				
	V45	0.64				
	V46	0.69				
	V47	0.66				
Factor two: Teaching Methods	V1		0.76			
	V2		0.75			
	V3		0.67			
	V4		0.62			
	V5		0.56			
	V6		0.58			
	V7		0.53			
	V8		0.56			

contd. table 3

Rotated Component Matrix *Factors*	*Variables*	*1*	*2*	*3*	*4*	*5*
Factor three: Teaching Staff	V14			0.40		
	V18			0.61		
	V19			0.61		
	V20			0.64		
	V21			0.64		
	V22			0.63		
	V23			0.60		
	V24			0.66		
Factor four: Course organization and infrastructure facilities	V25				0.47	
	V26				0.45	
	V27				0.56	
	V28				0.53	
	V29				0.59	
	V30				0.67	
	V31				0.64	
	V33				0.47	
	V34				0.72	
Factor five: Institutional administration and efficiency	V9					0.66
	V10					0.47
	V13					0.41
	V15					0.57
	V16					0.52
	V17					0.43
Sum of eigenvalue		8.97	5.06	4.80	5.14	3.08
% of Variance		49.20	4.77	3.79	2.59	2.25
% Cumulative variance		49.20	53.98	57.77	60.36	62.62
Cronbach's Alpha		0.95	0.91	0.91	0.91	0.85

Principal component: For greater clarity, only those loadings exceeding 0.4 are shown Extraction Method: Principal Component Rotation Method: Varimax with Kaiser Normalization Rotation converged in 10 iterations

Source: Survey data

5.3. Reliability measures

The Cronbach's alpha value of this study is between 0.86 and 0.95 all above 0.7 as suggested by (Hair *et al.* 1998) to perform exploratory factor analysis (see Table 4). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = 0.97 (Field, 2009), and all KMO values for individual items were greater than 0.7, (See Table 4) which is well above the acceptable threshold and indicates good sampling adequacy (Field 2009).

Table 4
KMO and Cronbach's Alpha Values for Individual Items

	Cronbach's alpha	*Kaiser-Meyer-Olkin (KMO)*
Course assessment and institutional image	0.95	0.97
Teaching methods	0.91	0.93
Teaching staff	0.91	0.93
Course organization and infrastructure facilities	0.91	0.94
Institutional administration and efficiency	0.86	0.88

Source: Survey data

5.4. Validity measures

According to (Field, 2009), the validity of the study identifies whether the research instrument actually measures what it sets out to measure. The validity of the study can be ensured through convergent validity. According to (Hair *et al.*, 1998), the convergent validity of the study can be measured through the average variance extracted. (Hair *et al.*, 1998) recommended that the cut-off level of average variance extracted for reaching the convergent validity should be less than 0.5. Accordingly, the study attained the convergent validity in accordance with the suggestions made by (Hair *et al.*, 1998). In addition, the convergent validity of the study can be measured through composite reliability. (Hair *et al.*, 1998) suggested the value of composite reliability should be equal to or greater than 0.7. The composite reliability values of the current study are varied between 0.78 and 0.89 (see Table 5). Therefore, the current study has attained convergent validity.

Table 5
Validity measures of the study

Factors	*Average Variance Extracted*	*Composite Reliability*
Course assessment and institutional image	0.36	0.89
Teaching methods	0.40	0.84
Teaching staff	0.37	0.82
Course organization and infrastructure facilities	0.34	0.81
Institutional administration and efficiency	0.27	0.78

Source: Survey data

5.5. Confirmatory factor analysis under structural equation modelling

Structural equation modelling allows researchers to assess the overall model fit, regression weights (standardized and unstandardized), correlation

coefficients, covariance matrix and variance simultaneously. In addition, structural equation modelling allows researchers to represent unobserved factors in the relationship and to assess bivariate and multivariate relationships throughout the analysis process. According to Pituch and Stevens (2015), an unobserved factor is a theoretical interest that cannot be directly observed and could be evaluated by visible variables that are observable. Confirmatory factor analysis is a significant statistical technique that may be supported to provide hypothetically evocative factor structures underlying observed variables (Pituch & Stevens, 2015). Two-step structural equation modelling was applied with the first step as the assessment of the goodness of model fits using confirmatory factor analysis and the second step as the test of developed hypotheses of this study.

5.6. Assessing the model fit

According to Pituch and Stevens (2015), the frequently used absolute fit indices includes the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Root Mean Square Error of Approximation (RMSEA). According to Pituch and Stevens (2015), models with 0.9 or higher than 0.9 associated with GFI and AGFI have been considered well-fitting data. Pituch and Stevens (2015) emphasized that values of RMSEA 0.01 to 0.05 shows a good fit, however, values varying between 0.05 and 0.1 show an adequate fit. According to Annamdevula and Bellamkonda (2016), Normed Fit Index (NFI), Relative Fit Index (RFI), and Tucker-Lewis Index (TLI) are used to evaluate how well the structural model fits the data relative to another baseline model. Pituch and Stevens (2015) suggested a threshold value of 0.9 or greater for comparative fit indices including NFI, RFI, and TLI to ensure a significant model fit. Dividing the value of chi-square $(X)^2$ by (DF) yielded the normed chi-square $(X)^2/DF$. Most of the time researchers suggested that the ratio of $(X)^2/DF$ should be less than five for an acceptable model fit.

Assessing the Model Fit of Measurement Model

The assessment of the absolute fit measures for the measurement model that is shown in Table 6 indicates that absolute fit measures of goodness of fit were not achieved. Values of GFI and AGFI are not equal to the threshold value of 0.9 suggesting an improper level of measurement model fit. The value of RMSEA was 0.07 which is varied between the recommended range of 0.05 and 0.1. Comparative fit indices (NFI, RFI, and TLI) are shown in the Table 7 were not higher than 0.9. In terms of parsimonious fit indices, the ratio of $(X)^2/DF$ was lower than the threshold value of 5. However, according to the recommendations of Hair *et al.* (1998), and Tabachnick,

Fidell, and Ullman (2007) at least one index from three fit indices should ensure the model fit. Therefore, the goodness of fit of the measurement model was not confirmed.

Table 6
Model fit values of measurement model

Model Fit Measures	*Index*	*Acceptable Level*	*Comment*
Absolute fit	GFI = 0.80	≥ 0.90 for acceptance	Required level was not achieved
	AGFI = 0.77	≥ 0.90 for acceptance	Required level was not achieved
	RMSEA = 0.07	0.05 - 0.1	Required level was achieved
Comparative fit achieved	NFI = 0.81	≥ 0.90 for acceptance	Required level was not
	RFI = 0.80	≥ 0.90 for acceptance	Required level was not achieved
	TLI = 0.85	≥ 0.90 for acceptance	Required level was not achieved
Parsimonious fit	$(X)^2/DF = 3.16$	Less than 5	Required level was achieved

Source: Survey data

5.7. Assessing the model fit of structural model

According to Pituch and Stevens (2015), GFI and AGFI can be identified as the widely used statistical measures, to assess the goodness of fit of the structural model. The value of GFI and the value of AGFI are exactly equal to 0.90 which indicates a moderately good fit. The RMSEA value of the structural model (0.07) was between 0.05 and 0.1. In summary, absolute fit indices (GFI, AGFI, and RMSEA) provide a broader view of the structural model, that the model satisfactorily fulfills the sort of data to meet the threshold values of absolute fit indices. Furthermore, NFI and RFI were exactly equal to the threshold value of 0.90. However, TLI was above the threshold value of 0.90, as recommended by Pituch and Stevens (2015). The value of 2.96 $(X)^2/DF$ ratio represents that the model fit is satisfactory as shown in the Table 7.

5.8. Discussion of hypotheses testing

H_1: The impact of the course assessment and institutional image on the level of students' satisfaction

The results of the current study show that course assessment and the institutional image was significant influencer of students' satisfaction with professional accounting education, in the Sri Lankan higher education

Table 7
Model fit values of structural model

Model Fit Measures	*Index*	*Acceptable Level*	*Comment*
Absolute fit	GFI = 0.90	≥ 0.90 for acceptance	Required level was achieved
	AGFI = 0.90	≥ 0.90 for acceptance	Required level was achieved
	RMSEA = 0.07	0.05 - 0.1	Required level was achieved
Comparative fit	NFI = 0.90	≥ 0.90 for acceptance	Required level was achieved
	RFI = 0.90	≥ 0.90 for acceptance	Required level was achieved
	TLI = 0.95	≥ 0.90 for acceptance	Required level was achieved
Parsimonious fit	$(X)^2$/DF = 2.96	Less than 5	Required level was achieved

Source: Survey data

context. Otherwise H_1 is accepted in this study (SRW = 0.31, C.R. = 10.62). In other words, if students' satisfaction with course assessment and institutional image increases or decreases by 1 standard deviation, students' overall satisfaction will increase or decrease by 0.31 standard deviation. The plausible argument is that most professional accounting students are highly concerned about infrastructure facilities provided for examinations by PAEIs, examination timetables, location in which examinations are conducted, the procedure of registration for examinations and fees for examinations, and training opportunities provided by PAEIs. In addition, these findings are parallel with the past studies concluded by Neumann and Neumann (1981), Weerasinghe and Fernando (2018), and Weerasinghe and Dedunu (2017). Neumann and Neumann (1981) concluded that there was a significant negative relationship between the year of study and the level of satisfaction with the assessment. Weerasinghe and Dedunu (2017) identify that students give their priority to reputed and well established universities in the Sri Lankan context. Weerasinghe and Fernando (2018) identified that image of the university had a significant influence on students' satisfaction in the Sri Lankan higher education context. Therefore, it can be concluded that professional accounting students evaluate their satisfaction with professional accounting programs conducted by domestic professional accounting bodies based on their experience with examinations conducted by PAEIs.

H_2: The impact of the teaching methods on the level of students' satisfaction

The findings of the study have revealed that students' satisfaction was positively and significantly influenced by teaching methods (SRW = 0.20, C.R. = 8.91) followed by PAEIs. Therefore, H_2 is supported in this study (see Table 8). This means that certain enhancements of students' satisfaction with teaching methods followed by PAEIs will eventually lead to an

increase in overall students' satisfaction with professional accounting programs. In other words, if students' satisfaction with teaching methods increases or decreases by 1 standard deviation, students' overall satisfaction will increase or decrease by 0.20 standard deviation. The results of this study are parallel with the empirical findings disclosed by past researchers such as Malouff *et al.* (2010), García-Aracil (2008), and Zaheer *et al.* (2015). Malouff *et al.* (2010) found that students' satisfaction was significantly influenced by the regular implementation of motivational teaching methods. García-Aracil (2008) emphasized that the curriculum of the degree program was a considerable factor to enhance the European undergraduates' level of satisfaction. According to Zaheer *et al.* (2015), the majority of Pakistani undergraduates were dissatisfied with the mode of course delivery.

H_3 : The impact of the teaching staff on the level of students' satisfaction

The findings of the study disclosed a significant influence of teaching staff on students' satisfaction with professional accounting programs. As it was hypothesized students' satisfaction was positively and significantly affected by the teaching staff of PAEIs (SRW = 0.17, C.R. = 8.78) which approve the findings of previously conducted studies (Weerasinghe and Fernando 2018; Neumann and Neumann 1981; Lenton 2015). In other words, if students' satisfaction with teaching staff increases or decreases by 1 standard deviation, students' overall satisfaction will increase or decrease by 0.17 standard deviation. Neumann and Neumann (1981), and Weerasinghe and Fernando (2018) identified students' satisfaction with academic staff as an important factor that was highly influenced by undergraduates' satisfaction. According to Lenton (2015), the student-academic staff ratio was an important determinant of students' satisfaction in UK universities.

H_4 : The impact of the course organization and infrastructure facilities on the level of students' satisfaction

Based on the results given in Table 8 it can be concluded that students' satisfaction was positively and significantly influenced by course organization and infrastructure facilities (SRW = 0.24, C.R. = 6.76). Therefore, H_4 is supported in this study. In other words, if students' satisfaction with course organization and infrastructure facilities increases or decreases by 1 standard deviation, students' overall satisfaction will increase or decrease by 0.24 standard deviation. As well as this result emphasizes that the higher perceived satisfaction with course organization and infrastructure facilities would lead to improving the students' overall satisfaction with higher education. Results obtained from

this study confirm the empirical findings revealed in several past kinds of literatures (e.g., Yusoff, McLeay, & Woodruffe-Burton, 2015; Sapri, Kaka, & Finch 2009; Childers, Williams, & Kemp 2014). Yusoff, McLeay, and Woodruffe-Burton (2015) concluded that course fees had a significant influence on the level of students' satisfaction. Sapri, Kaka, and Finch (2009) and Childers, Williams, and Kemp (2014) identified that library facilities, laboratory facilities, computer and Information Technology infrastructure facilities, learning environment, and infrastructure facilities as significant influencers of students' satisfaction in the higher education context.

H_5: *The impact of the institutional administration and efficiency on the level of students' satisfaction*

The findings of this study have unveiled the positive and significant influence of institutional administration and efficiency on the level of students' satisfaction with professional accounting programs conducted by domestic PAEIs (SRW = 0.13, C.R. = 4.94). Otherwise, if students' satisfaction with institutional administration and efficiency increases or decreases by 1 standard deviation, students' overall satisfaction will increase or decrease by 0.13 standard deviation. This outcome of this study is parallel with the empirical findings revealed by Tunio, Abbasi, and Soomro (2017), and Nagalingam and Sarath (2014). Tunio, Abbasi, and Soomro (2017) identified that administrative staff and career guidance services had a significant influence on students' overall satisfaction with higher education in the Pakistani context. According to Nagalingam and Niruba (2014), the administration of postgraduate degree programs can be identified as a significant determinant of postgraduate students' satisfaction.

H_6: *The impact of the students' satisfaction on the students' loyalty towards PAEI*

A statistically significant and positive influence of students' satisfaction on students' loyalty was anticipated. H_6 emphasizes that the students' satisfaction has a positive and statistically significant influence on the students' loyalty towards PAEIs (SRW = 0.88, C.R. = 10.24). Otherwise, if students' overall satisfaction with professional accounting education increases or decreases by 1 standard deviation, students' loyalty towards PAEIs will increase or decrease by 0.88 standard deviations. The results shown in this study emphasized that students' satisfaction was the key antecedent of students' loyalty. This supports a previous study that had been done by Navarro, *et. al.*, (2005). According to Navarro, et.al., (2005), students' loyalty is a function of students' satisfaction.

H_7: Students' loyalty is determined by the intentions of students to return to the same institution to follow higher studies

Based on the obtained results of the study, it can be concluded that 'intentions of students to return to the same institution to follow other courses' as a significant determinant of students' loyalty towards PAEIs (SRW = 0.64, C.R. = 8.69). The direct impact of students' intention to return to the same institution to participate in the courses on students' loyalty in the higher education setting was empirically proven by several researchers (De Lourdes Machado *et al.* 2011; Stewart, Speldewinde, and Ford 2018; Mwiya *et al.* 2017). De Lourdes Machado *et al.* (2011) identified students' satisfaction as the key input of students' return and retention with higher education institutions. Stewart, Speldewinde, and Ford (2018) and Mwiya *et al.* (2017) emphasized that students who are highly satisfied with the higher education services provided by higher education institutions will return to the same institution to follow higher studies.

H_8 : Students' loyalty is determined through the students' commitment as an alumni member

H_9 : Students' loyalty is determined through the students' commitment as a professional accounting student

The results of the study did not lead to rejecting H_8 and H_9. Respectively this emphasizes that students' loyalty towards PAEIs are determined by students' commitment as an alumni member (SRW = 0.52, C.R. = 7.73) and students' commitment as a professional accounting student (SRW = 0.37, C.R. = 6.04). The results of this study support the empirical findings of several past types of researches conducted by Stewart, Speldewinde, & Ford 2018 and Paswan & Ganesh 2009. Stewart, Speldewinde, and Ford (2018) emphasized that students who are highly satisfied with the higher education services will actively engage with the university alumni. Paswan and Ganesh (2009) found a positive correlation between the quality of services and students' behavioural intentions such as the commitment to join with alumni associations and commitment as a student to contribute to the development of the university.

H_{10}: Students' loyalty is determined through the personnel recommendations made by students

The obtained results of the study indicate that 'personnel recommendations are done by students' as the significant determinant of students' loyalty toward PAEIs (SRW = 0.51, C.R. = 8.23). The direct impact of students' intention to recommend the courses and students' positive word of mouth on students' loyalty in the higher education setting was

empirically proven by several researchers (Alves & Raposo, 2007; Mavondo, Tsarenko, & Gabbott, 2004; Temizer & Turkyilmaz , 2012). According to Alves and Raposo (2007), satisfied students are engaged with positive word of mouth even after their graduation of students. Mavondo, Tsarenko, and Gabbott (2004) and Temizer and Turkyilmaz (2012) emphasized that satisfied students intentionally recommend courses and higher education programs for prospective students.

Table 8
Results of hypotheses testing

Hypothesis	*SRW*	*C.R.*	*Results*
H_1	0.31	10.62***	Positive and Significant
H_2	0.20	8.91***	Positive and Significant
H_3	0.17	8.78***	Positive and Significant
H_4	0.24	6.76***	Positive and Significant
H_5	0.13	4.94***	Positive and Significant
H_6	0.88	10.24***	Positive and Significant
H_7	0.64	8.69***	Positive and Significant
H_8	0.52	7.73***	Positive and Significant
H_9	0.37	6.04***	Positive and Significant
H_{10}	0.51	8.23***	Positive and Significant

Source: Survey data

6. EMERGENT MODEL

Based on the data analysis and discussion of findings the study proposes the two-angle model view of the students' satisfaction in PAEIs (Fig 2).

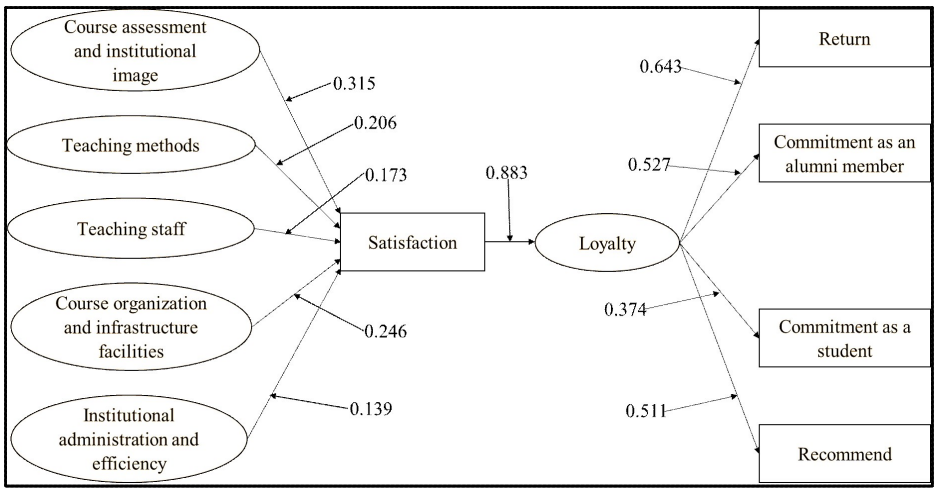

Figure 2: Two angle view of students' satisfaction

Source: Survey data

The two-angle view comes from the active students' perspective of satisfaction (left hand side of the satisfaction) and the alumni's perspective of satisfaction (right hand side of satisfaction).

7. IMPLICATIONS

The study is significant since it proposes two angle view of the students' satisfaction in PAEIs. As a result, the study argues that the growth and the sustainability of the PAEIs depend only on the policy decisions that would be designed by the governing bodies considering the two-angle of students' satisfaction proposed by the study. The study adds two constructs *viz.* Commitment as an alumnus (right hand side of the satisfaction in the emergent model) and commitment as a student (left hand side of the satisfaction in the emergent model) to Navarro *et. al.*'s model. Also, the proposed model will be an immense support for PAEIs and the policymakers in designing effective and efficient policies for the sector.

8. CONCLUSION

The study, in general, concludes that the two-angle view of the students' satisfaction is essential and hence, argues that the active students' perspective of satisfaction and alumnus perspective of students' satisfaction are the two extreme constructs that determine the overall students' satisfaction in PAEIs. The study in specific concludes that all five factors related to active students' perspective of satisfaction; institutional assessment, and image, teaching staff, teaching method, course organisation, and infrastructure facilities and institutional administration and efficiency have a positive and significant impact on student satisfaction. The study also in specific concludes that all four factors related to the alumnus perspective of satisfaction; return, commitment as an alumni member, commitment as a student, and recommendation to others about the professional institutions have a positive and significant impact on student satisfaction. Accordingly, the study highlights that there is a positive and significant relationship between student satisfaction and student loyalty. Finally, the study eliminated the enrolment and extended by adding two more constructs viz. commitment as an alumnus and commitment as a student to Navaro *et.al* (2005) model.

ACKNOWLEDGEMENT

The authors are thankful to the anonymous reviewers for their comments and the Editor for editing this paper. However, we owe the responsibility for any errors.

Conflict of Interest: There is no conflict of interests involved in the publication of this paper.

REFERENCES

Alves, Helena., & Mário Raposo. (2007). Conceptual model of student satisfaction in higher education. *Total Quality Management & Business Excellence,* 18 (5), pp. 571-88.

Annamdevula, Subrahmanyam, & Raja Shekhar Bellamkonda. (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), pp. 488-517.

Appleton-Knapp, Sara L., & Kathleen A. Krentler. (2006). Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of Marketing Education,* 28 (3), pp. 254-64.

Arambewela, Rodney., & John Hall. (2009). An empirical model of international student satisfaction. *Asia Pacific Journal of Marketing and Logistics,* 21 (4) , pp.555-69.

Azoury, N., Daou, L. and Khoury, C.E.L. (2014) University image and its relationship to student satisfaction- case of the Middle Eastern private business schools. *International Strategic Management Review*, 2(1), pp. 1–8.

Balachandran, B. (2007) Western imperialism and eastern accounting: The story of Chartered Institute of Management Accountants in Sri Lanka. *Revista Facultad de Ciencias Económicas,* 15(19), pp. 9–27.

Braeken, J. and van Assen, M.A. L. M. (2017). An Empirical Kaiser Criterion. *Psychological Methods*, 22(3), 450 – 466.

CASL (2018). Globalising our proposition ANNUAL REPORT - 2018. In, 112-. Colombo.

Childers, Carla., Kim Williams., & Elyria Kemp. (2014). Emotions in the classroom: Examining environmental factors and student satisfaction. *Journal of Education for Business* , 89 (1), , pp.7-12.

CMASL (2018). Integrated Thinking Annual Report - 2018. In, 84-. Colombo.

DeBourgh, G.A. (2003) Predictors of student satisfaction in distance-delivered graduate nursing courses:What matters most? *Journal of Professional Nursing*, 19(3), pp. 149–163.

De Lourdes Machado., Maria, Rui Brites., António Magalhães., & Maria José Sá. (2011). Satisfaction with higher education: Critical data for student development. *European Journal of Education,* 46 (3), , pp.415-32.

Douglas, Jacqueline., Alex Douglas., & Barry Barnes. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14 (3), , pp.251-67.

Elliott, Kevin M. (2002). Key determinants of student satisfaction. *Journal of College Student Retention: Researc., Theory & Practice,* 4 (3), , pp.271-9.

Elliott, Kevin M., & Margaret A. Healy. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Educatio,* 10 (4, pp. :1-11.

Elliott, Kevin M., & Dooyoung Shin. (2002). Student Satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy and Management,* 24 (2), , pp.197-209.

Field, Andy. (2009). *Discovering statistics using SPSS*. 3rd edn ed. London: SAGE Publications Ltd.

Hair, Joseph F., William C. Black, Barry J. Babin., Rolph E. Anderson., & Ronald L. Tatham. (1998). *Multivariate data analysis*. 7th edn ed. Vol. 5. New York: Prentice hall Upper Saddle River, NJ.

Helgesen, Øyvind., and Erik Nesset. (2007). What accounts for students' loyalty? Some field study evidence. *International Journal of Educational Management,* 21 (2), García-Aracil, Adela. (2008). European graduates' level of satisfaction with higher education. *Higher Education,* 57 (1), pp.126-43.

Hill, M.C. and Epps, K.K. (2010) The impact of physical classroom environment on student satisfaction and student evaluation of teaching in the university environment. Academy of Educational Leadership Journal, 14(4), p. 65.

Hsu, Sheng-Hsun., Yu-Che Wang., Chao-Jih Cheng., & Yu-Fan Chen. (2016). Developing a decomposed alumni satisfaction model for higher education institutions. *Total Quality Management & Business Excellence*, 27 (9-10), pp. 979-96.

Hussain, S. *et al.* (2014) The students' satisfaction in higher education and its important factors: a comparative study between Punjab and AJ&K, *Pakistan. Research Journal of Applied Sciences, Engineering and Technology*, 7(20), pp. 4343–4348.

Ismanova, Damira. (2019). Students' loyalty in higher education: The mediating effect of satisfaction, trust, commitment on student loyalty to Alma Mater. *Management Science Letters,* 9 (8), pp. 1161-8.

Jaroslav, Dado., Janka Táborecká-Petrovièová., Cuzovic Sreten., & Tamara Rajic. (2012). An empirical examination of the relationships between service quality, satisfaction and behavioral intentions in higher education setting. *Serbian Journal of Management,* 7 (11), pp. 203-18.

Kajenthiran, K. and Karunanithy, M. (2015) Service quality and student satisfaction: A case study of private external higher education institutions in Jaffna, Sri Lanka. *Journal of Business Studies*, 1(2), pp. 46–61.

Lenton, Pamela. (2015). Determining student satisfaction: An economic analysis of the National Student Survey. *Economics of Education Review,* 47 (21), pp. 118-27.

Masserini, Lucio., Matilde Bini., & Monica Pratesi. (2019). Do quality of services and institutional image impact students' satisfaction and loyalty in higher education? *Social Indicators Research,* 146 (1), pp. 91-115.

Mavondo, Felix T., Yelena Tsarenko., & Mark Gabbott. (2004). International and local student satisfaction: Resources and capabilities perspective. *Journal of Marketing for Higher Education,* 14 (1), pp. 41-60.

Mwiya, Bruce., Justice Bwalya., Beenzu Siachinji., Shem Sikombe, Hillary Chanda, & Moffat Chawala. (2017). Higher education quality and student satisfaction nexus: Evidence from Zambia. *Creative Education*, 8 (2), pp. 1044-68.

Nagendrakumar, Nagalingam, and Niruba Sarath. 2014. Students' satisfaction with post graduate degree programmes offered by different higher education institutions in Sri Lanka. *International Journal of Social Sciences and Entrepreneurship,* 1 (10), pp. 1-8.

Nagendrakumar, Nagalingam. (2017). Public Sector Accounting and Financial Reporting Reforms: Public Entities Perspectives, Sri Lanka. *International Journal on Governmental Financial Management*, 17(1), pp. 17-34.

Navarro, Mercedes Marzo., Marta Pedraja Iglesias., & Pilar Rivera Torres. (2005). A new management element for universities: Satisfaction with the offered courses. *International Journal of Educational Management,* 19 (6), pp. 505-26.

Neumann, Yoram., & Lily Neumann. (1981). Determinants of students' satisfaction with course work: An international comparison between two universities. *Research in Higher Education* , 14 (4), pp. 321-33.

Paswan, Audhesh K., & Gopala Ganesh. (2009). Higher education institutions: Satisfaction and loyalty among international students. *Journal of Marketing for Higher Education,* 19 (1), pp. 65-84.

Pathmini, M. *et al.* (2014) Impact of service quality on students' satisfaction in newly established public sector universities in Sri Lanka: Study based on the faculty of management studies. *Journal of Management Matters*, 1(1), pp. 51–64.

Pituch, Keenan A., & James P. Stevens. (2015). *Applied multivariate statistics for the social sciences: Analyses with SAS and IBM's SPSS*. 6th edn ed. New York: Routledge.

Poon, Joanna. (2015). A study of real estate student satisfaction in Australia. *Pacific Rim Property Research Journal,* 21 (3), pp. 215-33.

Premkumar, P. and Sooriyabandara, L. (2017) An empirical investigation of factors affecting student satisfaction: A case study of a Sri Lankan private higher educational institute. In: *Conference Proceedings 4th International Conference on Social Sciences* (ICOSS 2017). pp. 54–74.

Rashed, Osman Abu., & Saputra Ruswiati Surya. (2019). A pragmatic model of student satisfaction: A viewpoint of private higher education. *Quality Assurance in Education,* 27 (2), pp. 142-65.

Roman, I. (2014) Qualitative methods for determining students' satisfaction with teaching quality. *Procedia - Social and Behavioral Sciences,* 149(11), pp. 825–830.

Sapri, Maimunah., Ammar Kaka., & Edward Finch. (2009). Factors that influence student's level of satisfaction with regards to higher educational facilities services. *Malaysian Journal of Real Estate,* 4 (1), pp. 34-51.

Saif, N.I. (2014) The effect of service quality on student satisfaction: A field study for health services administration students. *International Journal of Humanities and Social Science,* 4(8), pp. 172–181.

Siming, L. (2015) Factors leading to students' satisfaction in the higher learning institutions. *Journal of Education and Practice*, 6(31), pp. 114–118.

Stewart, Barbara, Peter Speldewinde., & Benjamin Ford. (2018). Influence of improved teaching practices on student satisfaction ratings for two undergraduate units at an Australian university. *Assessment & Evaluation in Higher Education,* 43 (4), pp. 598-611.

Tabachnick, Barbara G., Linda S. Fidell., & Jodie B. Ullman. (2007). *Using multivariate statistics*. 6th edn ed. Vol. 5. Essex: Pearson Boston, MA.

Temizer, Leyla., & Ali Turkyilmaz. (2012). Implementation of student satisfaction index model in higher education institutions. *Procedia - Social and Behavioral Sciences,* 46 (12), pp. 3802-6.

Thomas, Emily H., & Nora Galambos. (2004). What satisfies students? Mining student-opinion data with regression and decision tree analysis. *Research in Higher Education,* 45 (3), pp. 251-69.

Thomas, Sam. (2011). What drives student loyalty in universities: An empirical model from India. *International Business Research*, 4 (2), pp.183-92.

Tsarenko, Yelena., & Felix Mavondo. (2017). Resources and capabilities as determinants of student satisfaction: Do foreign and local students differ. *Journal of International Marketing,* 23 (11), pp. 10-9.

Tunio, Raza Ali., Najam ul Hasan Abbasi., & Mansoor Mumtaz Soomro. (2017). Students satisfaction in higher education institutions: Case study of Mehran university of engineering & technology, Pakistan. *International Research Journal Arts & Humanities* 45 (11), pp. 59-70.

Ukwatte, S. and Yapa, P.W.S. (2013) Empirical study on university accounting education and the professional promulgation 2000 -2013: The case from a former British colony. Journal of Accounting Education, 15(2), pp. 9–27.

Van Deuren, Rita., & Karma Lhaden. (2017). Student satisfaction in higher education: A comparative study of a public and a private college. *Bhutan Journal of Research and Development,* 1 (3), pp. 40-52.

Weerasinghe, Ims., & Harshani Dedunu. (2017). University staff, image and students' satisfaction in selected regional universities in Sri Lanka. *IOSR Journal of Business and Management,* 19 (5), pp. 34-7.

Weerasinghe, Salinda., & R. L. S. Fernando. (2018). University facilities and student satisfaction in Sri Lanka. *International Journal of Educational Management,* 32 (5), pp. 866-80.

Wijewardena, Hema, and Senarath Yapa. 1998. Colonialism and accounting education in developing countries: The experiences of Singapore and Sri Lanka. *The International Journal of Accounting,* 33 (2), pp. 269-81.

Wong, Julianne Wai-yin., Canon Tong., & Anthony Wong. (2014). The mediating effects of school reputation and school image on the relationship between quality of teaching staff and student satisfaction in higher education in Hong Kong. *British Journal of Education, Society & Behavioural Science,* 4 (11), pp. 1557-82.

Yapa., P. W. Senarath. (2006). Cross-border competition and the professionalization of accounting: The case of Sri Lanka. *Accounting History,* 11 (4), pp. 447-73.

Yusoff, Mazirah., Fraser McLeay., & Helen Woodruffe-Burton. (2015). Dimensions driving business student satisfaction in higher education. *Quality Assurance in Education,* 23 (1), pp.86-104.

Zaheer, Muhammad., Masroor Elahi Babar., Uzma Hanif Gondal., & Mubashar Majeed Qadri. (2015). E-learning and student satisfaction. *9th Annual conference of Asian Association of Open Universities (AAOU),* 20 (8), pp. 11-29.