Effect of Student Service Quality and University Image on Student Satisfaction, Loyalty, and Motivation

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Abstract

This study aimed to understand whether there is a reciprocal relationship between student satisfaction and university image along with assessing the effect of service quality on student satisfaction, student loyalty, trust, and student motivation in universities in Riau. In the cross sectional, questionnaire-based study; a study instrument having six variables: five endogenous variables were trust (Y1), student satisfaction (Y2), university image (Y3), student loyalty (Y4), and student motivation (Y5) and one exogenous variable, namely, service quality (X1) was used. All variables were assessed by the 7-point Likert response scale. Structural equation modeling (SEM) and analysis of variance (ANOVA) were used as the analysis tools. Majority of the responders belonged to the age group of 20–22 years. Students in the age group of 20–22 years were nearing the end of their Diploma and Bachelor programs; this group of students had a long experience of service quality provided by the university. The responses to the survey questions regarding service quality, student satisfaction, trust, university image, and loyalty varied in different students' groups based on the age and course of study. However, no effect of gender on the responses was observed in the present study.

Keywords: student service quality; University image; student satisfaction; loyalty; motivation

1. Introduction

The importance of human resource improvement

The higher education sector has become a top priority for continuous reforms across many countries (Sultan & Yin Wong, 2010) including Indonesia. The Indonesian government has been constantly trying to improve the quality of higher education. The Indonesian government has allowed the operation of foreign universities in Indonesia. On 12 February 2020, the Indonesian government approved the establishment of Monash University in Jakarta through the Ministry of Education and Culture (Prodjo, 2020). This has resulted in great feeling of insecurity among the students studying in Indonesian universities. In Indonesia, Riau Province is one of the provinces that shares its borders with Malaysia and Singapore. Universities in Riau have been competing with some of the universities from Singapore and Malaysia. By the end of 2019, Peking University had even begun to build a campus on the island of Bintan, Riau Islands (Amri, 2019) which has resulted in increased competition.

To be in the competition, universities need to constantly improve their service quality (Bolton, Lemon, & Verhoef, 2004). Students tend to choose and register at universities that can provide the best service quality (Chen, 2016), which will increase student satisfaction and student loyalty (Annamdevula & Bellamkonda, The effects of service quality on student loyalty: the mediating role of student satisfaction, 2016a). High student satisfaction improvement will be a consideration for students to choose tertiary institutions (Tahir, Bakar, & Ismail, 2010). Influential factors such as good service quality and high student satisfaction will encourage student trust in the campus (Sultan & Yin Wong, 2013). Furthermore, these factors will also increase student motivation (Annamdevula & Bellamkonda, 2016b). Students who have high trust tend to improve university image (Sultan & Yin Wong, 2012).

A previous study (Alves & Raposo, 2010) has demonstrated the influence of image of the university that can have on student satisfaction. According to the study, a good image about the

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university will increase student satisfaction. Their result was also supported by (Dib & Mokhles, 2013). In contrast, (Sultan & Yin Wong, 2012) found a significant influence of university image on student satisfaction. This means that high student satisfaction will contribute towards improving university image.

In this study, we aimed to understand whether there is a reciprocal relationship between student satisfaction and university image. We also aimed to examine (1) the effect of service quality on student satisfaction, student loyalty, trust, and student motivation in universities in Riau; (2) the effect of student satisfaction on student loyalty, trust, university image, and student motivation in universities in Riau; (3) the effect of trust on university image across universities in Riau; and (4) if there is a reciprocal relationship between university image and student satisfaction across universities in Riau.

2. Materials and Method
Path Diagram of Structural Model
Figure 1 shows the hypotheses developed in this study.

We made the following hypotheses about service quality and student trust.

H1: Service quality has a positive effect on student satisfaction.

H2: Service quality has a positive effect on student loyalty.

H3: Service quality has a positive effect on student motivation.

H4: Service quality has a positive effect on student trust.

H5: University image has a positive effect on student satisfaction.

H6: Student satisfaction has a positive effect on university image.

H7: University image has a positive effect on student loyalty.

H8: Student trust has a positive effect on university image.

H9: Student trust has a positive effect on student loyalty.

H10: Student satisfaction has a positive effect on student trust.

H11: Student satisfaction has a positive effect on student loyalty.

H12: Student satisfaction has a positive effect on student motivation.

Survey Instrument
In this study, we had six variables: five endogenous variables were trust (Y1), student satisfaction (Y2), university image (Y3), student loyalty (Y4), and student motivation (Y5) and one

exogenous variable, namely, service quality (X1). Service quality variable consisted of 19 indicators, whereas the trust variable has 3 indicators. Furthermore, student satisfaction variable consisted of 7 indicators, whereas university image variable consisted of 5 indicators. The student loyalty variable consisted of 6 indicators, whereas student motivation variable consisted of 4 indicators. All variables were assessed by the 7-point Likert response scale system where responses were scored from 1–7 (1 = Strongly disagree to 7 = Strongly agree).
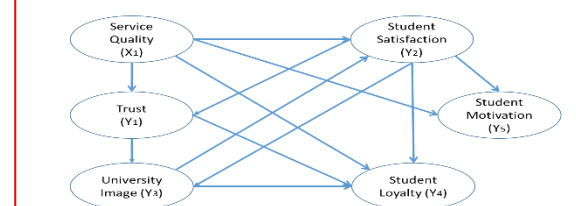

Figure 1. **Hypotheses developed in this study**

Population and Sample
The study population (N=141,525) comprised of all students registered at tertiary institutions in Riau province (Ministry of Research Technology and Higher Education, 2019). The number of samples predicted with a population of more than 75,000, was at least 384 people (Sekaran & Bougie, 2016). A total of 12 tertiary institutions were sampled in Riau. There were four universities, seven schools of higher learning, and one academy. The number of questionnaires distributed was 1500., and number returned and declared good were 1365.

Statistical Analysis
We used structural equation modeling (SEM) and analysis of variance (ANOVA) as the analysis tools. SEM is used to test the effect of service quality (X1) on trust (Y1), student satisfaction (Y2), university image (Y3), student loyalty (Y4), and student motivation (Y5). However, ANOVA was used to analyze respondents' perceptions based on respondents' profiles.

Research manuscripts reporting large datasets that are deposited in a publicly available database should specify where the data have been deposited and provide the relevant accession numbers. If the accession numbers have not yet been obtained at the time of submission, please state that they will be provided during review. They must be provided prior to publication. Interventionary studies involving animals or humans, and other studies require ethical approval must list the authority that provided approval and the corresponding ethical approval code.

3. Results

Demographic characteristics of responders

Table 1 describes the demographic characteristics of the respondents. In terms of gender, the proportion of male and female responders was same. However, in terms of age, majority of the responders belonged to the age group of 20–22 years. Students in the age group of 20–22 years were nearing the end of their Diploma and Bachelor programs; this group of students had a long experience of service quality provided by the university. Students in the age group of <20 years had only 1-year experience in the college, and were in the stage of adjustment in the campus. Students in the age group of 23–25 years are those who either were late completing their studies or those who have taken Master's program. While students in the age group of >25 years were Masters students. In the case of Master's Program, all had student and work status. Out of the undergraduate students some had student and work status while the rest 841 were only studying. Majority of students belonged to private universities. In this study, there were 2 public universities and 10 private universities as research objects.

Table 1. **Demographic profile of the responders**

Demography	Category	Frequency	(%)
Gender	Male	696	50.99
	Female	669	49.01
Age	< 20	475	34.80
	20 – 22	718	52.60
	23 – 25	73	5.35
	> 25	99	7.25
University Type	Public University	176	12.89
	Private University	1189	87.11
Occupation	Student	841	61.61
	Student and work	524	38.39

Validity and Reliability Test

The number of questionnaires distributed was 1500 and number returned and declared good were 1365. This shows that the response rate was 91%.

Table 2 shows the results of validity and reliability tests. The average score of the correlation test of all indicators was more than 0.600, with a p-value of 0.000. The limit allowed for the validity test is 0.600 (Hair, Black, Babin, & Anderson, 2014). Therefore, it can be said that all indicators of the construct of service quality, trust, university image, student satisfaction, student loyalty, and student motivation were valid. The average variance extracted (AVE)

score was above 0.500. The limit allowed in the AVE test is 0.500 (Hair, Black, Babin, & Anderson, 2014). Therefore, according to AVE scores all indicators and constructs were feasible to be used in this study. The construct reliability results obtained by all constructs are more than 0.900, even though the constraints were set only at 0.70 (Hair, Black, Babin, & Anderson, 2014). Cronbach's alpha whose values for all constructs were also more than 0.900. The limit allowed for reliability testing is 0.70 (Hair, Black, Babin, & Anderson, 2014). Therefore, it can be said that the survey instrument used was suitable for use in this analysis.

Goodness of Fit Test in SEM

Table 3 shows the results of goodness of fit test. In this study, we tested the model using the following eight criteria: chi-square, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), tucker Lewis index (TLI), comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA). Of these eight criteria, GFI, TLI, CFI, NFI, and IFI meet the criteria (fit), whereas the other two (AGFI=0.884 and RMSEA=0.044) were marginal and did not meet the criteria limits, but the values were close to the critical points (AGFI, 0.900 and RMSEA, 0.05). However, the chi-square value was very high (3,002,477) with a p value of 0.000, this might be due to the large number of samples (n>200). Thus, from the overall criteria used in the testing of goodness of fit, it can be concluded that the SEM model used in this study was good and feasible to use in further analysis.

Analysis of Variance (ANOVA)

We tested the behavior of respondents from various profiles using ANOVA. Table 4 shows the test results.

In terms of age, there were no significant differences in the perception of service quality. Students <20 years of age were students who had only 1-year experience about the service quality provided by the campus. This group felt that the service quality provided by the campus was good. While the group of students in the age group of 20–22 years had almost completed their studies on the campus. This group felt that the service quality received from the campus was low. Students in the age group of 23–25 years were late-completing students. Students in this group assessed the service quality provided by the campus as very good. In the case of students who were in the age group of >25 years were postgraduate students and they gave the highest rating compared to other age groups. Students from public universities gave a higher response than students from private universities.

Table 2. **Validity and reliability test**

Constructs	Indicators	Correlation	Loading Factor	P value	Cronbach's alpha	CR	AVE
Service Quality (X1)	X11	0.697	0.693	***	0.964	0.962	0.571
	X12	0.738	0.703	***			
	X13	0.742	0.730	***			
	X14	0.680	0.654	***			
	X15	0.676	0.658	***			
	X16	0.653	0.626	***			
	X17	0.726	0.701	***			
	X18	0.784	0.778	***			
	X19	0.766	0.770	***			
	X110	0.762	0.794	***			
	X111	0.791	0.825	***			
	X112	0.794	0.823	***			
	X113	0.813	0.839	***			
	X114	0.795	0.825	***			
	X115	0.788	0.817	***			
	X116	0.793	0.830	***			
	X117	0.741	0.744	***			
	X118	0.764	0.744	***			
	X119	0.748	0.745	***			
Trust (Y1)	Y11	0.887	0.922	***	0.947	0.947	0.857
	Y12	0.904	0.944	***			
	Y13	0.879	0.911	***			
University Image (Y3)	Y31	0.886	0.933	***	0.945	0.947	0.783
	Y32	0.898	0.931	***			
	Y33	0.871	0.891	***			
	Y34	0.894	0.918	***			
	Y35	0.712	0.736	***			
Student Satisfaction (Y2)	Y21	0.855	0.865	***	0.962	0.958	0.767
	Y22	0.895	0.895	***			
	Y23	0.890	0.928	***			
	Y24	0.878	0.895	***			
	Y25	0.878	0.875	***			
	Y26	0.862	0.858	***			
	Y27	0.807	0.810	***			
Student Loyalty (Y4)	Y41	0.852	0.918	***	0.955	0.953	0.772
	Y42	0.893	0.914	***			
	Y43	0.904	0.912	***			
	Y44	0.872	0.895	***			
	Y45	0.808	0.792	***			
	Y46	0.820	0.832	***			
Student Motivation (Y5)	Y51	0.853	0.880	***	0.949	0.947	0.817
	Y52	0.904	0.914	***			
	Y53	0.868	0.904	***			
	Y54	0.877	0.917	***			

Table 3. **Results of goodness of fit test**

Goodness of Fit Index	Cut-off*	Results	Consultation
Chi-Square		3002.477	Marginal
Probability	≥ 0.05	0.000	
G F I	≥ 0.90	0.904	Fit
A G F I	≥ 0.90	0.884	Marginal
T L I	≥ 0.90	0.963	Fit
C F I	≥ 0.90	0.968	Fit
N F I	≥ 0.90	0.956	Fit
I F I	≥ 0.90	0.968	Fit
RMSEA	0.05 - 0.08	0.044	Marginal

Table 4. **Analysis of variance for age, gender, type of university, and occupation**

Construct	Indicators	Means	F - Test			
			Age	Gender	University Type	Occupation
Service Quality (X_1)	X_{11}	4.766	8.035***	2.353	95.243***	0.715
	X_{12}	5.485	17.553***	0.004	81.482***	25.412***
	X_{13}	5.148	17.888***	0.519	42.833***	26.757***
	X_{14}	4.670	5.281***	0.233	82.092***	1.409
	X_{15}	4.645	10.350***	0.782	60.169***	0.308
	X_{16}	5.007	12.243***	0.200	109.159***	0.153
	X_{17}	4.901	10.950***	0.038	113.620***	0.328
	X_{18}	4.977	8.701***	2.345	85.857***	14.386***
	X_{19}	5.084	14.450***	0.417	51.650***	33.719***
	X_{110}	4.904	22.192***	3.259	27.319***	18.436***
	X_{111}	4.926	13.976***	3.099	15.558***	16.395***
	X_{112}	4.988	8.726***	2.170	42.878***	17.264***
	X_{113}	5.036	18.596***	0.037	48.871***	13.132***
	X_{114}	4.881	17.038***	3.422	23.573***	21.669***
	X_{115}	4.845	19.621***	2.222	24.957***	20.789***
	X_{116}	5.079	19.642***	1.048	18.351***	32.174***
	X_{117}	4.875	15.483***	1.933	21.023***	23.406***
	X_{118}	5.162	15.565***	0.040	49.466***	35.409***
	X_{119}	4.998	18.049***	3.143	36.567***	37.693***
	X_1	4.967	22.213***	0.973	82.550***	23.264***
Trust (Y_1)	Y_{11}	5.070	14.440***	0.292	1.360	22.214***
	Y_{12}	5.127	11.177***	0.183	2.866*	10.285***
	Y_{13}	4.981	10.289***	0.240	3.693*	4.434**
	Y_1	5.059	13.087***	0.261	2.777*	12.520***
University Image (Y_3)	Y_{31}	5.335	14.655***	4.266**	10.272***	35.272***
	Y_{32}	5.478	11.037***	3.745	10.492***	42.194***
	Y_{33}	5.360	10.432***	3.616	10.344***	41.115***
	Y_{34}	5.488	10.753***	4.236**	18.221***	40.273***
	Y_{35}	5.540	8.670***	2.163	13.752***	25.951***
	Y_3	5.440	13.277***	4.324**	15.230***	44.796***
Student Satisfaction (Y_2)	Y_{21}	5.390	16.074***	5.405***	3.053*	46.265***
	Y_{22}	5.293	17.379***	7.720***	3.930**	47.850***
	Y_{23}	5.420	12.031***	12.817***	16.806***	33.598***
	Y_{24}	5.392	9.721***	9.888***	11.648***	24.025***
	Y_{25}	5.379	6.352***	14.221***	23.466***	46.740***
	Y_{26}	5.237	11.598***	4.202***	6.636***	29.233***
	Y_{27}	5.105	10.766***	12.858***	13.326***	49.728***
	Y_2	5.317	14.329***	11.176***	12.185***	48.328***
Student Loyalty (Y_4)	Y_{41}	5.317	14.329***	11.176***	12.185***	48.328***
	Y_{42}	5.361	13.797***	11.382***	10.048***	44.539***
	Y_{43}	5.275	11.771***	13.484***	14.978***	30.763***
	Y_{44}	5.300	9.494***	13.079***	18.041***	23.303***
	Y_{45}	5.251	8.288***	14.721***	23.388***	20.430***
	Y_{46}	5.393	12.121***	12.914***	21.501***	12.329***
	Y_4	5.404	7.344***	15.920***	27.665***	14.397***
Student Motivation (Y_5)	Y_{51}	5.336	12.62***	8.456***	14.851***	46.984***
	Y_{52}	5.132	12.041***	12.340***	18.312***	31.329***
	Y_{53}	5.097	13.467***	1.752	9.709***	13.628***
	Y_{54}	5.113	9.247***	6.598***	33.586***	19.516***
	Y_5	5.169	13.515***	7.688***	20.900***	30.540***

Furthermore, some student participants were already working. In general, this group of students responded to the service quality provided by the campus as good, whereas full-time students provided low responses. Students who were working and were full-time students provided lowest ratings.

The average score given for trust was 5.059. The lowest rating was recorded for Y23 which states that "University staff always kept their promises to me." When viewed from the perspective of the age group of students, there were many significant differences. Students in the age group of <20 years had a low perception (only 4.900) of trust. Likewise, students who were in the group of 20–22 years also provided low average score (5.045) for trust. However, students who were in the age group of 23–25 years and >25 years provided average scores of 5.201 and 5.825. In terms of gender, there was no difference in the perception of trust between male and female students. When viewed in terms of type of university, the perception of trust was not too different. Indeed, for the statement "University staff always kept their promises to me" there was a small difference, the public universities held more promises than private universities. However, in the case of working students, they always felt disappointed with the promise from the campus. Full-time students felt that they can get better service from the university. This means, working students who felt disappointed were working bachelor students. So, students who had a low level of confidence in the campus were students who were already working and were in the age group of <20 years and between 20 and 22 years.

The average score of student satisfaction was high at 5.317. However, the lowest indicator was "Satisfaction with the quality of equipment and facilities." This means that most students were not satisfied with the quality of equipment and facilities. However, students felt more satisfied with the quality of support services provided by the campus. With respect to age groups, there were significant differences in student satisfaction. Students in the age group of <20 years experienced lowest student satisfaction than those in the age group of 23–25 years. However, students in the age group of 20–22 years reported good student satisfaction; however, they did not respond positively to service quality. This means that good service quality will not necessarily mean good student satisfaction. While new students (<20 years) and students who were late completing their studies gave lower responses for student satisfaction than those belonging the other age groups. Postgraduate students in the age

group of >25 years consistently responded with highest ratings for student satisfaction.

Students who felt less satisfied were students who had worked at private universities and mostly were male and aged <20 years and 23-25 years. They mainly raised concerns regarding "Satisfaction with the quality of equipment and facilities" and "Satisfaction with the quality of administrative services."

4. Discussion

Various groups of researchers have assessed the measurement of service quality (Grönroos, 1984; Parasuraman, Zeithaml, & Berry, 1985). Since then, various service quality measurement tools and models have been widely studied across different sectors (Kim, 2011; Luximon & Chan, 2017; Chandra, Hafni, & Novita, 2020). A few studies exist that have focused on the education sector (Abdullah, 2006; Annamdevula & Bellamkonda, 2016b; Duarte, Raposo, & Alves, 2012).

The present study was designed to understand the relationship of student satisfaction with university image. Other parameters like effect of service quality on student satisfaction, student loyalty, trust, and student motivation in universities, the effect of student satisfaction on student loyalty, trust, university image, and student motivation, and the effect of trust on university image across universities in Riau were also evaluated.

Service Quality

Product quality can be measured by total quality management (TQM) tool, which became popular in the 1980s. However, the products produced by the higher education sector are student services. According to (Seth, Deshmukh, & Vrat, 2005), service quality must be measurable and controlled. Service is defined as an activity or profit offered for sale or offered related to a product, whereas quality is defined as the totality of features and characteristics of a product or service that is able to meet the needs of the consumers (Kotler & Keller, 2016). Service quality can also be interpreted as consumer expectations (Parasuraman, Zeithaml, & Berry, 1988), which can be compared with the service quality obtained. If service quality is fulfilled or exceeds consumer expectations, then the consumers will feel satisfied. On the contrary, if the service quality is not fulfilled or does not meet the consumer expectations, then the consumer will feel disappointed. This also applies to the education sector, especially the higher education sector. If students feel that the quality of service provided by the institution has exceeded or has met his/her expectations, then the students will feel satisfied. A study conducted in India has found that high service

quality provided to students increased student satisfaction (Annamdevula & Bellamkonda, 2016a & 2016b). (Abdullah, 2006) conducted research at various universities in Malaysia using Higher Education Performance only (HEdPERF) and found that high service quality provided to students tends to increase student satisfaction. Likewise, a study conducted at a private tertiary educational institute in Singapore showed that good service quality increased student satisfaction. Research conducted in Indonesia also showed a positive effect of service quality on student satisfaction (Chandra, Hafni, Chandra, Purwati, & Chandra, 2019; Chandra, Ng, Chandra, & Priyono, 2018). However, a research conducted at various universities in Syria found that good service quality did not increase student satisfaction (Dib & Mokhles, 2013).

A previous study conducted at various universities in Riau Indonesia showed that a good service quality will not increase student loyalty (Chandra, Hafni, Chandra, Purwati, & Chandra, 2019). This means that good service does not automatically make students loyal. However, research conducted at various universities in Portugal reported that good service quality to students can increase student loyalty (Duarte, Raposo, & Alves, 2012). Loyal students tend to help their university in finding the right promotion program so that the university can develop and maintain a long-term success. However, research conducted at various universities in Syria showed that there was no significant effect of service quality on student loyalty (Dib & Mokhles, 2013).

In the present study it was observed that different age group students had different levels of satisfaction about service quality. Students <20 years of age who had only 1-year experience about the service quality provided by the campus felt that the service quality was good. In contrast, students in the age group of 20-22 felt the service quality was low. These were the students who had almost completed their study. However, students in the age group of 23–25 years who were late-completing students and the students in the age group >25 years felt the service quality was very good and gave high ratings. Being the postgraduate students (>25 years) they assessed the service quality more objectively. Most of the students that provided high ratings for service quality were working students.

Furthermore, many student's dropout was not only due to various cognitive factors but also due to the lack of emotional motivation (Annamdevula & Bellamkonda, 2016a). The authors demonstrated a significant positive effect of good service quality on student motivation among various university students (Annamdevula & Bellamkonda, 2016a). Students who have high motivation study harder and are more successful than students who have lower motivation (Larose & Whitten, 2000).

Student trust in universities is important in fulfilling campus promises, commitments, and integrity and in solving academic and administrative problems related to the relationship between students and campus staff. In Thailand, studies conducted at various universities have shown the positive effect of service quality on student trust (Kunanusorn & Puttawong, 2015). In Australia, similar results were found by (Sultan & Yin Wong, 2012) after conducting research on college students.

Relationship between Student Satisfaction and University Image and Student Loyalty

University image has been defined as the amount of each student's trust in his college (Alves & Raposo, 2010; Arpan, Raney, & Zivnuska, 2003; Landrum, Turrisi, & Harless, 1998). It is a very important asset in facing competition (Landrum, Turrisi, & Harless, 1998). Even in providing student satisfaction, university image is more important than quality (Kotler, 1995). In a previous study conducted at a Norwegian university, students who were satisfied with the service quality had a good image about the university (Helgesen & Nesset, 2007). Researchers who conducted research at the Central Queensland University (CQU), Rockhampton, Australia, also found satisfied students would have an impact in improving the university's image (Sultan & Yin Wong, 2012). In Karachi, a study conducted at all business schools reported a positive influence of student satisfaction on university image (Ali & Ahmed, 2018).

In contrast, in Portugal, a study conducted at various universities has reported that university image has a positive influence on student satisfaction and student loyalty (Alves & Raposo, 2010). However, in Nigeria, a study conducted at various universities in Nigeria reported a positive effect of university image on student satisfaction and student loyalty (Usman & Mokhtar, 2016). Similar research conducted in Indonesia also reported a positive effect of university image on student satisfaction and student loyalty (Chandra, Hafni, Chandra, Purwati, & Chandra, 2019). In Syria, similar research was conducted at various universities; it showed a significant effect of university image on student satisfaction (Dib & Mokhles, 2013).

Trust

As stated earlier, university image is a collection of student confidence in higher education (Alves & Raposo, 2010). Public confidence and trust can help

management improve their image (Liew, 1997). Therefore, one of the factors that determine the success of corporate image is trust, where trust is the result of consumer experience feeling good service quality and gaining satisfaction (Nguyen & Leblanc, 1997). Student's perceptions about university image are very important in determining the existence of universities in the market (Sultan & Yin Wong, 2012). Student experience while on campus will increase student trust which will ultimately increase university image. (Sultan & Yin Wong, 2012) conducted research at Central Queensland University (CQU), Rockhampton, Australia and reported that student trust can improve university image.

Because student trust is formed from the experience of students who are satisfied with the perceived service quality so far, student trust also increases student loyalty. A study conducted on 352 students reading Business Administration at three different institutions in the State of São Paulo found a positive influence of student trust on student loyalty (Bergamo, Giuliani, Camargo, Zambaldi, & Ponchio, 2012). A study conducted at various universities in Latin America found that student trust did not have a significant effect on student loyalty (Rojas-Mendez, Vasquez-Parraga, Kara, & Urrutia, 2009). Similarly, a research conducted in the Northern Cyprus reported that there was no significant effect of student trust on student loyalty (Ismanova, 2019).

In the present study it was seen that there was a significant proportion of students who felt disappointed with the promises of the university staff. It was evident from the responses that the

new students (<20 years) and the diploma and bachelor's students (20-22 years) experienced disappointment over the promises from the university. However, majority of the postgraduate students (23-25 and >25 years) were not disappointed with the promises made by their university. There was no gender bias in the perception of trust. It was also observed that the students felt that the public universities held more promises than private universities. The working students and the full-time students felt disappointed with the promises from the campus. The students those felt disappointed were mostly bachelor students (<20 years and 20-22 years).

Student Satisfaction

Student trust is formed based on the experience of students in receiving service quality. Good service quality will increase student satisfaction and eventually student trust will be formed (Nguyen & Leblanc, 1997). Therefore, student trust will increase

if the students feel satisfied. According to a research conducted at a public Chilean university, increased student satisfaction significantly increased student trust (Rojas-Mendez, Vasquez-Parraga, Kara, & Urrutia, 2009). Similarly, in Australia, a study showed a direct effect of student satisfaction on student trust (Sultan & Yin Wong, 2013).

Students who were satisfied with the services provided by the campus tend to be loyal. According to research conducted in India, an increase in student satisfaction increases student loyalty (Annamdevula & Bellamkonda, 2016b & 2016a). Similar results were reported by (Bergamo, Giuliani, Camargo, Zambaldi, & Ponchio, 2012) after conducting research on students at various institutions in the State of São Paulo.

Similarly, a previous research conducted on students in Indonesia reported a significant positive effect on student satisfaction on student loyalty (Chandra, Ng, Chandra, & Priyono, 2018) (Chandra, Hafni, Chandra, Purwati, & Chandra, 2019). Students who were satisfied with the services provided by the campus also tend to increase their motivation to learn. According to a research conducted in India, student satisfaction had a significant effect on student motivation (Annamdevula & Bellamkonda, 2016a).

In the present study it was observed that the average score of student satisfaction was high. However, it was observed that most of the students were not satisfied with the quality of equipment and facilities. In contrast they were satisfied with the quality of support services provided by the campus. Student satisfaction was observed to be affected by the age of the students. The young students (<20 years) were the most dissatisfied students. However, students in the age group of 20-22 years reported good satisfaction but these students did not respond positively to service quality. This indicates that good service quality is not always associated with good student satisfaction among the students. This may be due to a better understanding of the campus. Although they feel the service quality received from the campus is low, they adapt themselves to feel more satisfied. Postgraduate students in the age group of >25 years consistently responded with highest ratings for student satisfaction. Mostly the students were dissatisfied raised concerns about the quality of equipment and facilities and the quality of administrative services. Most of these students had worked at private universities and mostly were males. So, private universities should consider these points seriously. The students who have already worked are the ones who are very critical about the services as they are

more experiences and have seen and worked under various circumstances.

5. Conclusion

The responses to the survey questions regarding service quality, student satisfaction, trust, university image, and loyalty showed a great variation in different groups of students depending upon the age and course of study. There were differences in responses between students from private and public sector universities. Gender did not have any significant effect on the type of response. Service quality and university image plays an important role in the student satisfaction, loyalty, and motivation.

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