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The influence of Perceived Service Quality towards Customer Satisfaction and Loyalty in Airasia Self Check-in System

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Abstract

The urgent needs for Airlines around the world, especially low-cost carrier to optimize earnings and reduce their operational costs accentuate the use of self-service technologies (SSTs) in their operating system, including their check-in process. The self-check-in system (online, mobile and at kiosk) is mainly offered to reduce costs, speed and enhance the customer's experience. Using adapted questionnaire from self-service technology quality (SSTQUAL) scale, this research aims to examine the service quality of airline self-check-in system and its impact on customer satisfaction and loyalty in an emerging market for a low-cost carrier, namely Airasia. Data for the study are collected from 123 passengers who have used the Airasia's self-check-in service and are analyzed using Pearson's correlation and Smart partial least square (SmartPLS). The result indicates that self-check-in service quality exhibits significant impact on customer satisfaction and customer loyalty. It also found that customer satisfaction fully mediates the relationship between perceived service quality and customer loyalty.
Keywords: SSTQUAL; Self Check-in service quality; Customer satisfaction; Customer loyalty; Airasia.

1. Introduction

The advancement of Information Technology has brought changes to firms in operationalized their service, including in Airline industry (Castillo-Manzano and López-Valpuesta, 2013). Most of company today undertake to adapt this technology advancement as response to the needs to optimize earnings and reduce operational cost. As the 9th time winner of best low-cost airline, Airasia is promoting "digital and personalization" as future strategies in delivering the services (Based on the Q4 2017 Airasia's financial report). This strategy is obtained by using, as called, special service required (SSR). It needs the digital initiative (e.g: self-check-in service) to further reduce cost and grow overall revenue to be done. These issues have accentuated the company to encourage customer's involvement by performing service for themselves using self-service technology (SST).

Self-service technology is technology interface that enable customers to produce a service without a service employee's involvement (Meuter *et al.*, 2000). SST offers the service done faster, more convenient, cheaper (Hilton *et al.*, 2013) and allows customer to interact with service provider through this medium (e.g: kiosk, internet, interactive voice response and mobile services). Besides, to enhance the productivity and effectiveness of company (Demirci Orel and Kara, 2014); (Hilton *et al.*, 2013). The adoption of SST has been an emerging topic in the recent decade (Hilton *et al.*, 2013) as it replaced the conventional way of interaction between customer and service provider (Lin and Hsieh, 2011); (Meuter *et al.*, 2000). For instance, implementation of SST is to provide benefits for both service provider and consumers.

In the context of air transport, passengers can use SSTs to do check-in over online web check-in, mobile check-in or at kiosk (Lin and Hsieh, 2011). This prevents passengers from the long queue, cost effective and time saving (Chang and Yang, 2008). Not only the passengers, the airlines company may also gains advantages from this implementation in the efficiency and productivity of their operating system (Castillo-Manzano and López-Valpuesta, 2013); (Dabholkar, 1996); (Meuter *et al.*, 2000), especially low-cost carrier, namely Airasia which offer low fares in the interest of attracting passengers (Belobaba *et al.*, 2015). This self-check-in service has become the crucial aspects to the company competitiveness.

Although this technology-based service has been successfully utilized by Airline, and has become a common way for travelers since the last decades, the self-check-in service is becoming increasingly important as more and more passengers are using this service. Recent study indicates that the successful use of SST may enhance the relationship between customer and service provider (Fernandes and Pedroso, 2017). Thus, to stay competitive in the market, it is important to know the passengers experience of using this service (e.g: Airasia).

In this regard, a substantial amount of previous research has studied the importance of service quality on customer satisfaction and loyalty using SSTQUAL (Demirci Orel and Kara, 2014); (Lin and Hsieh, 2011); (Shahid Iqbal *et al.*, 2018). However, up to our knowledge the use of SSTQUAL and its dimensions on customer satisfaction and customer loyalty in the emerging low-cost airline self-check-in service is still limited. This research, therefore, attempts to examine the role of SSTQUAL in Airasia self-check-in service and investigate its influence on

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passenger's satisfaction and loyalty and to what extend customer satisfaction mediate the relationship between SSTQUAL and customer satisfaction. The research adopts the quantitative and cross-sectional approach. First, this paper proceeds with an introduction, the objectives of the study and the test conducted to obtain the reliable measures of the variables; Secondly, it continues with a brief literature review; Thirdly, it describes the conceptual framework consisting of the conceptual model and hypotheses related to training in self-check-in service quality, customer satisfaction and customer loyalty based on the review of the current evidence of these relationships. Fourthly, it discusses the methodology adopted. Fifth, it highlights the results of Pearson's correlations and Smart PLS. Finally, the results are then discussed and implications highlighted.

2. Literature Review
2.1. Self-Check-In System

As technology has emergently evolved in service-based business, the use of self-service technology is expected to become a crucial aspect in service delivery (Beatson et al., 2007); (Dabholkar, 1996). This self-service technology has continuously developed and has been widely used in airlines industry, especially low-cost airline in obtaining operational cost reduction. Airlines have opted self-check-in service to substitute labor and staff, and thus expected to be the source of cost savings and way to attain new customer segments. Therefore, passenger participation has become a fundamental concern in the low-cost carrier industry (Akamavi et al., 2015). Furthermore, this business model affirms passenger to "do it yourself" right from the beginning of passenger's journeys. As result, it has shifted the passenger's way to do check-in and expected to be continued in the future (Castillo-Manzano and López-Valpuesta, 2013).

Self-check-in service can be done independently by using kiosk, online check in, and mobile check-in. Recently, this in-trend alternative is gaining popularity and has replaced the traditional over-desk check-in. This innovation has brought advantages to both airlines and passengers. Whilst airlines gain the advantage of cost efficiency, passengers perceived the advantages in terms of time saving, ease of use and productivity (Castillo-Manzano and López-Valpuesta, 2013). Self-check-in is related to the adoption of technology-based service. This idea is line with the technology acceptance model (TAM) which suggest that beliefs about technology, namely perceived usefulness and perceived ease-of-use, influence attitudes, which in turn lead to intentions and, ultimately, usage (Davis, 1989). Similarly, to stay competitive, company should uphold the continuation improvement of the service. Thus, to address this issue, there is a need to know how the customer experiences this service and how it influences customer temporal loyalty toward the service provider.

2.2. SST service quality

Service quality has been extensively studied related to service delivery in past decades (Brady and Cronin, 2001); (Cronin and Taylor, 1992); (Parasuraman A. et al., 1985). Until today the debate related to service quality dimensions and its measurement is still emerged phenomena (Huang et al., 2015); (Shahid Iqbal et al., 2018); (Yang et al., 2005). However, Parasuraman et al. (1988) conceptualization has become the seminal work in service quality as its five service quality dimensions, SERVQUAL, have been widely used in the literature. It includes Reliability, Responsiveness, Assurance, Empathy, and Tangibility (Parasuraman et al., 1988).

The literatures exhibit some seminal woks in service quality (Brady and Cronin, 2001); (Cronin and Taylor, 1992); (Dabholkar, 1996); (Ding et al., 2011); (Huang et al., 2015); (Parasuraman A. et al., 2005); (Parasuraman et al., 1988). However, to capture the needs to measure the perceived service quality which has incorporated the element of technology-based self-service, SSTQUAL was introduced (Lin and Hsieh, 2011). As defined by previous studies, SST is a technological interface which allows customers to get services free from the involvement of service firm's employee (Meuter et al., 2000). The SST is varied, it includes for example Automatic Transfer Machine (ATM), Retail Self-check-out, Hotel self-check-in, parking automatic self-pay, petrol station self-pay and Airline's self-check-in service. SST leads to the enhancement of the service as it allows customer to complete the self-check-in transaction more effectively, conveniently and quickly (Hsieh, 2005).

Nowadays, low-cost airline companies are forced to minimize cost and optimize earnings due to high operational cost. To be successful in this industry, an airline company needs to achieve long term customer loyalty by increasing flexibility and improving ease of usability and convenience in order to enhancing customer experience and satisfaction. This effort would surely promote and improve the image of the airline company, especially low-cost carrier arises from the adoption of the self-check-in system which is easy, flexible and embedded in the operations system. Furthermore, technological advancements have changed the way people performing the check-in process and the company would not want to be outperformed by competitors. The check-in process can be done more effectively using self-check-in system at the customers' convenient time. Besides reducing operational cost, self-check-in service (web check-in, mobile check-in and at kiosks) is increasing the speed of service delivery and enhanced customer experience (Castillo-Manzano and López-Valpuesta, 2013). However, replacing desk check-in with self-service technology (e.g: self-check-in) means the reduction in personal interactions, which may be highly-valued by some customers and can be an integral part of customer loyalty (Oh and Baloglu, 2013). At the same time it might worry those customers who have lack of experiences with the technology advancements (Gures et al., 2018) and technology anxiety (Meuter et al., 2003).

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3. Conceptual Framework and Hypotheses

This section explores the conceptual model which highlights the linkages between the constructs and well as variables within the context of the airlines self-check-in system. In addition, hypotheses of the study are also discussed.

3.1. The conceptual Model

This paper explores the relationships between SST quality in Airasia's check-in system, customer satisfaction and loyalty. The proposed conceptual model, as depicted in Figure 1, is based on three main constructs which are investigated in this study, namely: (i) perceived SST quality (SSTQUAL); (ii) Customer Satisfaction (SAT); and (iii) Customer Loyalty (LOY). The hypothesized model in the present study demonstrates that perceived SST quality is important in enhancing loyalty and it is compulsory of service provider to utilize the service and increase customer experience. The framework consists of seven manifest dimensions of SSTQUAL and two variables of customer outcomes.

Figure-1. The conceptual model linking SSTQUAL, Customer Satisfaction and Customer Loyalty
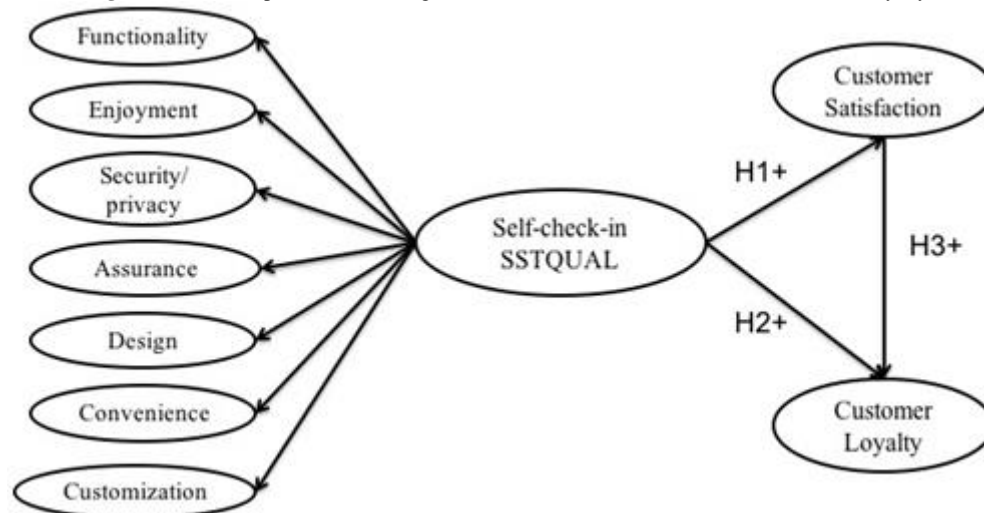
3.2. The Explanation of the Constructs and Variables
3.2.1. SSTQUAL

To measure the perceived self-check-in SST Quality, we operationalized SSTQUAL which has been used by many researchers to measure the SST service quality. The validation level of SSTQUAL has also been certainly affirmed by different test of reliability and validity in different settings (Demirci Orel and Kara, 2014); (Fernandes and Pedroso, 2017) as well as in the context of airline (Yau and Tang, 2018). The SSTQUAL is originally consists of 20 (twenty) items and 7 (seven) reflective dimensions, namely Functionality, Enjoyment, Security/Privacy, Design, Assurance, Convenience and Customization (Lin and Hsieh, 2011).

Functionality refers to one of the key SST's feature. It includes reliability, responsiveness and ease of use. Enjoyment is related to the opinion of the customer using system, Security/privacy refers to personal concerns of the customers, while design is associated with overall layout of the system. Assurance is incorporating the elements of the service provider's proficiency and repute. Whilst convenience is referred to the ease with which a customer can access the services offered, customization refers to designing service by catering to the different wants and needs of customers.

3.2.2. Customer Satisfaction

Customer satisfaction construct has been extensively studied to measure the consumer behavior Albert (2002a); (Makanyeza and Chikazhe, 2017). In this study, customer satisfaction is operationalized as a unidimensional construct. Customer satisfaction is customer's overall evaluation after experiencing the Self-check-in service. Consistent with previous research and literature, customer satisfaction is measured based on cognitive, affective and attribute factors (Oliver, 1993).

3.2.3. Customer loyalty

Customer loyalty is defined as the strength of the relationship between an individual's relative attitude and repeat patronage (Dick and Basu, 1994). Oliver (1993) defines customer loyalty as customer propensity to reuse (affective loyalty) and commitment to repurchase the service (conative loyalty). This study measures loyalty affectively and cognitively. Thus, we operationalized customer loyalty as single construct which is measured by using 4 items which will capture the behavioral and attitudinal components.

4. Hypotheses Development

In the service quality literature, there is a growing trend on the association of service quality and customer satisfaction (Amin *et al.*, 2013); (Cronin and Taylor, 1992); (Demirci Orel and Kara, 2014); (Sureshchandar *et al.*, 2002) discovers that there is a strong relationship between service quality and customer satisfaction in urgent transport service (e.g: airlines). In the context of self-service technology (SST), studies also indicated a positive relationship between SST service quality and customer satisfaction (Demirci Orel and Kara, 2014); (Shahid Iqbal *et al.*, 2018). In addition, study by Wittmer (2011) at Zurich airport reveals that e-check-in plays an important role in creating passenger's satisfaction with the check-in process as it reduces the waiting time. For instance, an increase in service quality will lead to an increase in customer satisfaction. Therefore, we hypothesized:

H1: Self-service technology service quality positively influences customer satisfaction

The literature in service quality often suggest that perceived service quality is important for customer loyalty. Several studies suggest that positive evaluation of customer enhances customer commitment to repurchase the service (Albert, 2002a); (Aydin and Özer, 2005); (Kandampully, 1998); (Kashif *et al.*, 2014). In the self-service context, it was revealed that positive influence between self-check-out service quality in supermarket and customer loyalty. In addition, perceived service quality in technology-based service has a positive impact on customer loyalty (Shahid Iqbal *et al.*, 2018). Thus, we hypothesized:

H2: Self-service technology service quality positively influences customer loyalty

The passenger intention to repurchase can be considered as the outcome of customer satisfaction (Cronin and Taylor, 1992). In the service marketing literature, it appears that the link between customer satisfaction and customer loyalty seems to be positive, both in conservative and technological settings. For instance, consumer satisfaction has a significant effect on purchase intentions in the self-service technology. (Forgas *et al.*, 2010) reveals customer satisfaction as the antecedent of affective loyalty in airline industry. Therefore, we hypothesized:

H3: Customer satisfaction positively influences customer loyalty

Several studies have established that service quality positively influences customer satisfaction (Albert, 2002a); (Demirci Orel and Kara, 2014). Perceived service quality positively associates with satisfaction, which in turn positively influences loyalty (Izogo and Ogba, 2015). (Makanyeza and Chikazhe, 2017) discover that satisfaction mediates the effect of perceived service quality on customer loyalty in the survey of Bank customers in Zimbabwe. Likewise in the technology-based service, the relationship between service quality and loyalty is mediated by customer satisfaction (Shahid Iqbal *et al.*, 2018). Moreover, Demirci Orel and Kara (2014) suggest indirect effect of SST service quality on customer loyalty via customer satisfaction. Therefore, we hypothesized:

H4: Customer satisfaction mediates the relationship between SST service quality and customer loyalty

5. Methodology

5.1. Research design and sample

Using purposive sampling method, the data were collected through online and offline questionnaire. Sample were the airline passenger who has experienced Airasia's self-check-in system. One hundred and thirty-three responses were received and analyzed. The instrument used in this study was a structured survey questionnaire, adapted from SSTQUAL measurement (Lin and Hsieh, 2011), which was designed to assess the passenger perspective toward the self-check-in system service quality. To enable respondents to indicate their answers, ten–point interval scales were used in the questionnaire. Similarly, the dependent variables, namely customer satisfaction and customer loyalty also used a ten-point interval scale, representing a range of agreement with the statements.

Table 1 provides relevant information regarding the respondent characteristics. The total number of respondents were 133 of which 45 were male (33.8%) and 88 were female (66.2%). The majority of the respondents age were less than 25 (42.9%) and 25-35 (45.1%). It supports the findings by Orel & Kara (2014) regarding the age group that use the self-service system. Moreover, regarding the education level the majority of the respondents were master degree holder, which we considered as the crucial characteristics of market segment who were most likely to use the self-service technology.

5.2. Reliability and validity

Reliability tests were used to select and assess the final items of the independent constructs that were used for statistical testing. The internal consistency of each factor was examined using Cronbach alphas. The result indicated that the Cronbach's alpha measures for the three main constructs exceeded the threshold point of 0.70. Alpha coefficients for SSTQUAL, Customer Satisfaction and Loyalty were ranged between 0.871 and 0.950 after the alpha maximization process were carried out (Table 1) indicating internal consistency. As the result, seven dimensions and three constructs were retained for further analyses.

Table-1. Model Reliability and Validity (SmartPLS)

Constructs	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
SSTQUAL	0.950	0.955	0.955	0.474
Satisfaction	0.921	0.922	0.950	0.863
Loyalty	0.871	0.926	0.908	0.713

Table-2. Sample Charateristics

Characteristics	Frequency	Percentage
Gender		
Male	45	33.8%
Female	88	66.2%
Age		
Less than 25	57	42.9%
25 - 35	60	45.1%
36 - 45	14	10.5%
46 - 55	2	1.5%
56 - 65	0	0.0%
Over 65	0	0.0%
Level of Education		
High school or less	3	2.3%
Undergraduate	46	34.6%
Graduate	84	63.2%
Monthly Income		
Below RM1000	64	48.1%
RM1001 – RM3000	42	31.6%
RM3001 – RM5000	10	7.5%
RM5000 – RM10000	13	9.8%
Above RM10000	4	3.0%
Nationality		
Malaysia	98	73.7%
Non-Malaysia	35	26.3%
Frequency of Travelling		
Once a year	57	42.9%
Once in 6 months	48	36.1%
Once a month	12	9.0%
Once a month or more	16	12.0%
Purpose of Travelling		
Business	15	11.3%
Travelling	101	75.9%
Education	54	40.6%
Visiting Family	42	31.6%
Other	0	0.0%
Self Check-in Using		
Computer Web Check-in	68	51.1%
Mobile Check-in	40	30.1%
At kiosk Check-in	25	18.8%
Destination		
Within Malaysia	67	50.4%
Regional Asean	53	39.8%
Regional Asia	21	15.8%
Australia Oceania	6	4.5%
All the above	6	4.5%
Other	0	0.0%

6. The Research Findings
6.1. The Correlations

Validity and reliability tests were used to select and assess the final items of the independent constructs that were used for statistical testing. Table 3 provides the results of correlation analysis performed among the variables of the studies. Results indicated that all the variable had reliable and acceptable value of Cronbach's alpha, i.e. α = 0.789 for functionality (MSQF), α = 0.839 for Enjoyment (MSE), α = 0.898 for Security (MSSEC), α = 0.775 for Assurance (MSA), α = 0.898 for Design (MSD), α = 0.858 for Convenience (MSCON), α = 0.883 for Customization (MSCUST), α = 0.932 for Satisfaction (MSC) and α = 0.874 for Loyalty (MSL). It exhibited that Independent Variable, namely SST quality with its dimensions, mediating variable, namely Customer Satisfaction and dependent variable, namely Loyalty were positively and significantly correlated each other.

Table-2. Pearson's Correlation Among Variables

		MSQF	MSE	MSSEC	MSA	MSD	MSCON	MSCUST	MSC	MSL
MSQF	Pearson Correlation	1	.696**	.435**	.540**	.547**	.660**	.563**	.669**	.418**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	(C ALPHA 0.789)	133	133	133	133	133	133	133	133	133
MSE	Pearson Correlation	.696**	1	.625**	.725**	.756**	.734**	.740**	.804**	.593**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	(C ALPHA 0.839)	133	133	133	133	133	133	133	133	133
MSSEC	Pearson Correlation	.435**	.625**	1	.650**	.553**	.730**	.649**	.604**	.480**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	(C ALPHA 0.898)	133	133	133	133	133	133	133	133	133
MSA	Pearson Correlation	.540**	.725**	.650**	1	.720**	.716**	.805**	.757**	.681**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	(C ALPHA 0.775)	133	133	133	133	133	133	133	133	133
MSD	Pearson Correlation	.547**	.756**	.553**	.720**	1	.672**	.725**	.719**	.546**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	(C ALPHA 0.898)	133	133	133	133	133	133	133	133	133
MSCON	Pearson Correlation	.660**	.734**	.730**	.716**	.672**	1	.772**	.760**	.526**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	(C ALPHA 0.858)	133	133	133	133	133	133	133	133	133
MSCUST	Pearson Correlation	.563**	.740**	.649**	.805**	.725**	.772**	1	.789**	.698**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	(C ALPHA 0.883)	133	133	133	133	133	133	133	133	133
MSC	Pearson Correlation	.669**	.804**	.604**	.757**	.719**	.760**	.789**	1	.630**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	(C ALPHA 0.932)	133	133	133	133	133	133	133	133	133
MSL	Pearson Correlation	.418**	.593**	.480**	.681**	.546**	.526**	.698**	.630**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	(C ALPHA 0.874)	133	133	133	133	133	133	133	133	133

6.2. The results of the SmartPLS

The SmartPLS was engaged to examine simultaneous linkages between perceived SSTQUAL, customer satisfaction and customer loyalty (as shown in figure 2). By observing overall result in Table 4, the result demonstrated that among SSTQUAL dimensions, Enjoyment had the highest sample mean (0.889), followed by convenience (0.879), customization (0.866), Assurance (0.839), Design (0.799), Functionality (0.780) and lastly security (0.740). The result indicated that the Airasia's self-check-in service users perceived more on Enjoyment and Convenience. Thus, the company needs to enhance the customer's enjoyment and convenience of using the self-check-in system, in order to customer perceived satisfaction. The results suggested that security was the least important among other dimensions. This could explain how the development of technology has increase the customer's trust on the self-check-in system to secure the passenger's private and confidential. The results also suggested that the company should enhance the customer perceived service quality in self-check-in service as it would increase customer satisfaction and customer loyalty toward the company. Moreover, the result also suggested that the user preferred using computer web check-in compared to other self-check-in system.

Moreover, the findings (as exhibited in Figure 2, Figure 3 and Table 6 of the SmartPLS results) indicated that the path from SSTQUAL to Customer satisfaction was relatively high with a loading of 0.846 and a significant bootstrapping t-value of 32.140. Thus, Hypothesis 1 was supported. The results also exhibited that SSTQUAL to customer loyalty was not significant at 0.411 yet a significant at 2.831 of bootstrapping t-value. Therefore, the hypothesis 2 was accepted. On the other hand, the path of the Smart PLS algorithm model also showed that the direct impact of customer satisfaction on customer loyalty was not significant with a loading of 0.317, yet a significant effect bootstrapping t-value of 2.205. Hence, the hypothesis 3 was accepted.

Figure-2. the SmartPLS (algorithm) model showing the relationship between SSTQUAL, Satisfaction and Loyalty
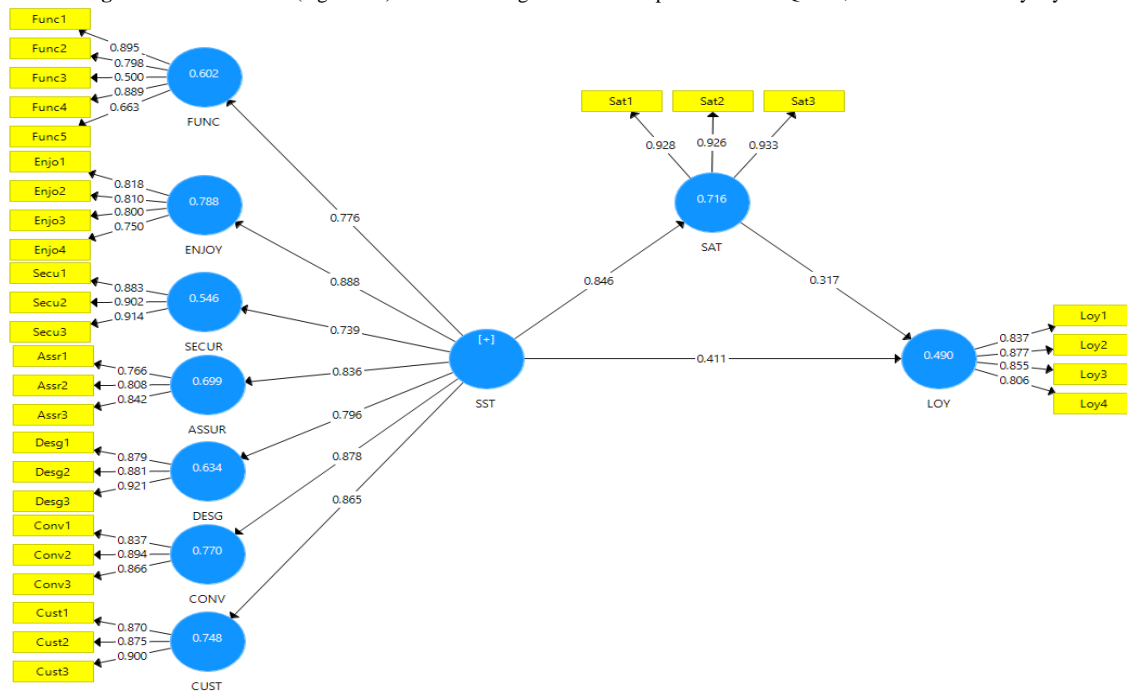
Figure-3. the SmartPLS (bootstrapping) model showing the relationship between SSTQUAL, Satisfaction and Loyalty
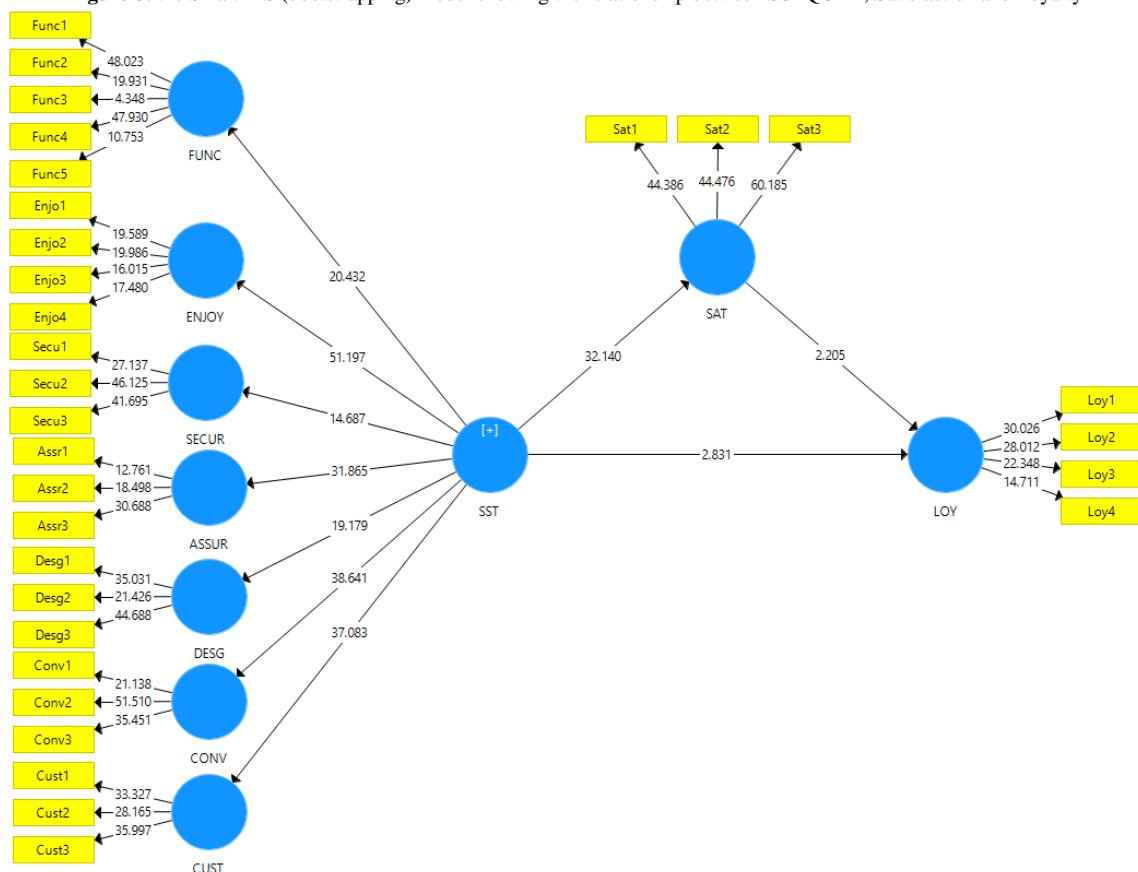
Furthermore, to identify the mediation role of customer satisfaction of the linkage between SST service quality and customer loyalty, an additional direct model that links the SSTQUAL and customer loyalty was predicted without inclusion of the mediator (customer satisfaction). The direct linkage between SSTQUAL and customer loyalty was found to be not significant. In contrast, the result of mediation model of SmartPLS showed that SSTQUAL has a significant impact of customer loyalty with the inclusion of customer satisfaction as mediator. Therefore, we had evidences that the SSTQUAL and Loyalty were fully mediated by customer satisfaction.

Table-4. The Structural and Measurement Results of the SmartPLS

Constructs and Indicators	Loadings	Sample Mean (M)	Standard Deviation	T Statistics
SSTQUAL				
Functionality	0.776	0.780	0.037	20.762
Enjoyment	0.888	0.889	0.018	48.853
Security	0.739	0.740	0.051	14.433
Assurance	0.836	0.839	0.026	32.567
Design	0.796	0.799	0.040	19.718
Convenience	0.878	0.879	0.023	38.237
Customization	0.865	0.866	0.025	35.090
SSTQUAL -> SAT	0.846	0.849	0.027	31.247
SSTQUAL -> LOY	0.411	0.404	0.144	2.850
SAT -> LOY	0.317	0.328	0.143	2.217
SSTQUAL -> SAT -> LOY	Indirect effect (0.846 x 0.317) = 0.268 *significant			
	Total effect (0.679 + 0.268) = 0.947 *full mediation			

(significant T-statistics > 1.96 at 95% level of confidence)

7. Conclusion and Implications

Self-service technologies have become an option for airline industry, especially in low-cost airline industry to achieve work efficiency. The trends of self-service technologies promote the use of self-service technologies in check-in process. The successful of this self-service technology perceived by the customer will affect the company and customer relationship (Lin and Hsieh, 2011); (Meuter *et al.*, 2000) and likely have a positive impact on customer outcome (Shahid Iqbal *et al.*, 2018). However, consumers' response to such service could vary crucially and influence their satisfaction level towards the company. As SST become a major trend in low-cost airline industry service delivery, investigating the effects of SST service quality on customer satisfaction and loyalty becomes crucial for the low-cost airline.

As predicted, our findings exhibited that younger customers had higher propensities to use self-service technology in self-check-in system in the Airasia setting. These segments are low income and technology savvy. Moreover, findings also show that the majority of self-check-in user are travelling purposes. These characteristics are consistent with Airasia's user which are mostly young travelers with low income.

Our findings also show a positive and statistically significant relationship between SSTQUAL and customer satisfaction as hypothesized in H1. However, our result does not provide support for the relationship between SST and loyalty (H2), yet we have statistical support for the mediation for SST, satisfaction, loyalty path (H4). Lastly, the result does not support suggestion that there is a positive link between customer satisfaction and customer loyalty. The justification for this hypothesis could be because of the context of low-cost industry. The passenger of low-cost industry has no tendencies to be affectively and cognitively loyal once they are satisfied with the service quality. They have many other options of carriers to fly of which are offering more interesting offers. In addition, the promotion and cheap price may also contribute to passenger decision.

This paper is relevant to practitioners and mangers because the findings may reveal the important aspects in achieving customer loyalty in low-cost airline industry. This paper also would be of particular interest to marketing and strategic managers, especially low-cost carrier as it suggests what factor should be emphasized and the customer characteristics of low-cost airline in order to improve company operational system, reduce cost and maximize the profit. The result suggests that low-cost airline which is promoting self-check-in system in the check-in system should emphasize greater attention on computer web check-in system, customer enjoyment and convenience as well as greater attention to the unique young market who are easily satisfied but not affectively loyal with the airline company. The result also shows that the majority of passenger is using Airasia for travelling purposes, which indicates that the market for travelers is at an increasing rate. It is safe to state that Airasia should also give greater attention to the tourist destination in opening new routes.

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