

The Role of Sustainable Service Quality in Achieving Customer Loyalty in the Residential Housing Industry



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ABSTRACT

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The aim of this study is to investigate and observe the effect of (1) sustainable service quality on sustainable construction, reliability, assurance, tangible, empathy, responsiveness, customer satisfaction, customer loyalty; (2) customer satisfaction on customer loyalty; and (3) customer satisfaction in mediating the relationship between sustainable service quality and customer loyalty. The investigation of sustainable service quality employed a survey for homeowner from sixty-three housing developer which listed in Indonesia Stock Exchange. This study will use a quantitative approach, where the research data that has been collected will be processed and examined using structural equation modeling (SEM) based on AMOS version 26. There are 215 homeowners assessed for this study. The results of this study revealed that Sustainable Service Quality elements namely sustainability construction, reliability, assurance, tangible, empathy, responsiveness significantly and directly influence customer satisfaction. In addition, customer satisfaction significantly influences customer loyalty. Finally, the significant of this study is to prove that the implementation of sustainability construction and service quality affecting homeowners' satisfaction and loyalty.

1. INTRODUCTION

Recently, many corporations believe in strengthening networks and maintain interminable relationship with their partners. Strong network, sustainable environment, and powerful communication are main concerns of any organization in achieving their successful business. Sustainable service quality has pivotal role to create greatest business performance. Sustainable service quality can be expressed as the company's capability to meet the expectations of customers. The correlation connecting service quality, customer satisfaction, customer loyalty, and business performance is already discussed by many literature [1].

This study will investigate the impact of Indonesian real estate companies' sustainable service quality nearing customers' satisfaction and loyalty. Sustainable Service Quality model is employed to determine key insights for customers' satisfaction and loyalty. Sustainable Service Quality model comprises six independent variables namely sustainability, reliability, assurance, tangible, empathy, and responsiveness [2]. Since this study investigate sustainable service quality for residential housing, the sustainability is measured by assessing Sustainability Construction namely environment, society, and economy [3].

The residential housing industry in Indonesia has developed expeditiously because of the growing middle class and rising levels of urbanisation. Housing is described as the primary needs that should provide cosines for the homeowner [4]. Once a homeowner has willingness to purchase a house, they should consider many factors such as housing design [5], location [6], reputation of the property developer [7], financial

considerations [8]. Moreover, only limited study examines service quality as a critical factor influencing housing provision. Previous study discussed about the importance of service excellence when developers constructing a client house [8]. Therefore, the gap of this research is there is no research about sustainable service quality in the residential housing industry. Finally, the significant of this study is to prove that the implementation of sustainability construction and service quality affecting homeowners' satisfaction and loyalty.

This research aims to satisfy the existing knowledge void by investigating the customer satisfaction's role in mediating the correlation among sustainable service quality and customer loyalty. No previous study found focuses on sustainable service quality in the residential housing industry. Thus, the role of this study is to amplify the relationship between sustainability construction and service quality. Therefore, this study can be used by each stakeholder in the residential housing to improve organizational performance based on sustainable service quality.

2. LITERATURE REVIEW

Amid the revolution of the industry 4.0, sustainability plays a significant role for each company to meet customers' needs. In terms of residential housing, sustainability in new homes provide customers' settlements. Therefore, the ability of housing developer creates sustainable housing solution provide social, economic, and environmental benefits for customer [9]. It means that housing developer should be able

to employ sustainability as a marketing tools to attract more homeowners to purchase their product. Mostly, every homeowner evaluating their purchase decision on the ground of the power of innovation or sustainability [10]. This suggests that homeowner drives change in the residential housing industry.

Once a housing quality did not satisfy homeowners' requirements, they would continue pursuing other alternatives which provide better product and services. It indicates that homeowners are constantly looking for better choices to satisfy their necessities [11]. Then, housing developers should be able to identify homeowners' needs based on their motivation [12]. Accordingly, housing developers would be able to obtain excellent reputation once they can fulfil customers' needs, carry on product quality, as well as provide after-sales service to the customer [13]. The effective measurement of customers' expectation correlates to the service quality efficiency [14].

Even though service quality has been discussed in many literatures for more than four decades, very few studies that discuss service quality in field of residential housing. Service quality measurement model developed by Parasuraman et al. called SERVQUAL encompasses five generic dimensions namely reliability, tangible, assurance, responsiveness, and empathy [15]. There are many discussions about SERVQUAL in last four decades including the finding of positive connection between customer satisfaction and SERVQUAL in the automotive sector [16], banking industry [17], hospital industry [18]. Only limited study discusses about SERVQUAL in the housing industry, while no discussion about sustainable service quality in the residential housing industry. Therefore, sustainable service quality model comprising of sustainability construction [13], reliability, assurance, tangible, responsiveness, and empathy [15] adopted for this study.

Largely, housing developer in Indonesia can be categorized as low entry barrier industry. The invasion from different industries and small medium enterprise companies led to tight competition and price war. These situations generating service quality disparity and constructing business difficulties among housing developer. Numerous studies discussing property sector in the various topics like property management [19], housing developers' performance [20], risk management [21], facilities management [22], client prospecting [23], construction safety [24], building information modelling [25], time performance [26].

As discussed earlier, most literature in the field of housing construction focused on the sustainable product development and there is no previous study discussing the sustainable service development. In addition, the discussion of service quality mostly conducted in the service industry like bank, hospitality, and other service sector. Then, the main goal of this study is probing the effect of sustainable service quality in the residential housing industry. The investigation of sustainable service quality in the residential housing industry recognized as an innovative breakthrough to provide theoretical value for sustainability, service quality, customer satisfaction, and customer loyalty.

3. HYPOTHESES DEVELOPMENT

3.1 Sustainability

Lately, sustainability considered as the most important

feature for business community across the world [27]. Then, sustainability can be identified as the measurement tools to ensure a product or system able to work continuously in their lifecycle with the lowest level of business impact [28]. The main idea of sustainability is to confirm that economic, environmental, and social benefits are influential for future business development [29]. The concept of sustainability has direct impact to the implementation of service quality. Mostly, economic and social benefits factors are closely related with the concept of service quality. With the regard to service quality, matching expectations and perceptions of customers are the primary purpose of business development [15]. Basically, economic concept and social benefits explains the importance of meeting supply and demand [30]. Consequently, the idea of sustainable service quality is the main consideration of sustainable business development.

Predominantly, sustainability has positive relation with the firm and business performance [31]. The measurement of sustainability for this study using three essential factors namely social, economic, and environmental [32]. In order to achieve sustainability integration, each company should be able to increase customer satisfaction [9]. Even though only few studies examine the relation between customer satisfaction and sustainability, previous scholar found a notable and positive relationship between sustainability concepts with customer satisfaction in regard to hospitality industry [31]. Earlier study also found sustainable service quality in the telecommunication industry firmly in relation to customer satisfaction [33]. Since no study measure the link between sustainability construction and sustainable service quality in residential housing, this research proposed the following hypothesis.

Hypothesis 1. There is a positive correlation between sustainability construction and sustainable service quality in the residential housing industry.

3.2 Reliability

Reliability is expressed as a capability to execute the contracted service precisely and consistently [34]. Each customer expecting first-hand impression from supplier to guarantee their reliability level in service delivery [35]. Reliability also can be used to measure company's ability to transfer prompt service to the customer [36]. Previous study indicates that there is a remarkable connection between reliability and customer satisfaction in food industry [37]. In addition, reliability also positively correlated with customer satisfaction in banking milieu [36]. Therefore, reliability is indicated as critical factor which influence customer satisfaction in housing service management industry [38]. These findings relevant with earlier studies which explains that reliability is considered as one of service quality element exhibits a significant correlation to customer satisfaction [15]. Thus, the researchers posited that:

Hypothesis 2. There is a positive correlation between reliability and sustainable service quality in the residential housing industry.

3.3 Assurance

During the process of service delivery, each service provider should be equipped with proper knowledge to transfer any information and provide assurance to customers [39]. In addition, assurance is also can be used to measure

employees' ability to demonstrate courteous behaviour, identification of the customers' curiosity, and identify customers' expectation [40]. Each service delivery process should have the excellent quality of assurance because it will be able to enhance confident and trustworthy level of customer [41].

Earlier studies found out that assurance is deemed as an important factor affecting customer satisfaction [42]. Recently, assurance identified as a compelling dimension which influencing customer satisfaction in the construction sector [43]. These findings relevant with the previous study which declare the emergence of assurance has significant impact toward customer satisfaction in the construction industry [44]. In the context of the residential housing industry, it was acknowledged that assurance as the key objective to enhance service quality [39]. These examinations have stimulated the current research to propose the following hypothesis:

Hypothesis 3. There is a positive correlation between assurance and sustainable service quality in the residential housing industry.

3.4 Tangible

Within SERVQUAL model, tangible variable used to evaluate the physical facilities and personnel appearance [45]. In addition, tangible variable also can be used to investigate the available system, materials, equipment, and staff attitude [46]. Then, there are several dimensions that can be used to assess tangible in the service quality measurement such as proper location, appropriate equipment, communication network, and acceptable equipment [47]. The results of tangible valuation provide the whole picture of the service to the customer and improve company's reputation [48].

Earlier study discovered that tangibles is a pivotal factor influencing customer satisfaction [39]. These findings relevant with the later study which declare positive connection between the tangible dimension of service quality with customer satisfaction [46, 49]. It implies that understanding the face of tangibles from service quality can appraise the level of customer satisfaction. In the context of the building material retailer, tangible also considered as the foremost features developing customer satisfaction [50]. Therefore, tangible variable also has significant impact to the customer satisfaction in the real estate industry [51]. Consequently, the succeeding hypothesis was suggested by the researchers:

Hypothesis 4. There is a positive correlation between tangible and sustainable service quality in the residential housing industry.

3.5 Empathy

Empathy is considered as one of SERVQUAL variable which identify the level of thoughtful, easiness to access, suitable communication, respecting the customer, and provide attention to the customer [15]. It means that each company should be able to pay attention, listening and understanding their customer. Any corporation who are able to prioritize and deliver excellent value to the customer can win the competition because customers are less affected by the competitors [52]. It indicates that empathy have significant impact to the customer satisfaction [53]. Advanced studies strengthening the findings of significant relationship between empathy and customer satisfaction [54].

Therefore, the service quality assessment in the property

management industry found significant influence of empathy toward customer satisfaction [19]. These findings correspond to previous studies of positive relationship between empathy and households' satisfaction in the property management industry [55], building maintenance industry [56]. Empathy also contributes to the significant stimulus towards post-purchase satisfaction of home buyers [37]. On the basis of the prior empirical studies, the researchers put forward these hypotheses:

Hypothesis 5. There is a positive correlation between empathy and sustainable service quality in the residential housing industry.

3.6 Responsiveness

Responsiveness can be labelled as the company's eagerness to provide prompt service and support customers [57]. Company's ability to implement responsiveness dimension affecting the customer satisfaction [58]. Moreover, responsiveness significantly influences customer satisfaction [59]. In real estate industry setting, responsiveness has substantial connection with customer satisfaction [51]. Lately, it was affirmed that responsiveness described as a very prominent factor influence customer satisfaction in the residential housing industry [60]. These findings supporting previous study which explains that high resident satisfaction is highly depends on the company's ability to provide high level of responsiveness [61]. Thus, the researchers posited that:

Hypothesis 6. There is a positive correlation between responsiveness and sustainable service quality in the residential housing industry.

3.7 Customer satisfaction and customer loyalty

Customer satisfaction is identified as customers' feelings towards gladness or displeasure emerging from the comparison of their perceptions and expectations [62]. Specifically, customer satisfaction is customers' standpoint according to customers' expectation and their post-purchase experience [63]. Customer satisfaction may be justified as the consequence of positive disconfirmation revealed via perceptions toward product performance [64]. It means customer satisfaction is the strategic factor for each corporation to construct a positive customer relationship [65].

Most customers are always exploring more advance alternatives to please their needs [11]. Then, the customer always makes a proper selection towards goods or services fulfilling their needs [66]. Likewise, the customer satisfies when meet or exceeds expectations, while dissatisfied when less their expectations [67]. Additionally, a satisfied customer shows a positive purchase intention of repurchase, positive word of mouth and loyalty for longer course of time [68]. Customer satisfaction is the primary consideration to generate customer loyalty [69]. Repeatedly, customers' willingness to remain loyal towards the goods or services of an organization depends on customer satisfaction [70]. Thus, customer satisfaction is the foundation for positive word of mouth and customer loyalty.

In terms of residential housing, customer satisfaction can be calculated according to the ability of property developer to provide similar building material as promised [71]. The fundamental reason of housing satisfaction is consumers' experiences, attached to the sum amount of money expensed on the housing in the regard to the standard of the housing unit

[72]. The measurement between customers' expectations and perceptions known as the concept service quality model [15]. Therefore, customer is satisfied when the perceptions exceed the expectations. Thus, the level of service quality significantly influences customer satisfaction [73, 74]. Furthermore, sustainable service quality has major role in generating customer satisfaction [57]. Then, it was also discovered customer satisfaction indicated as the mediating variable between sustainable service quality and customer loyalty [75].

Therefore, customer loyalty is defined as the customers' commitment to repurchase a product or service regularly later, even though there are potential situation or marketing campaign to switch customers' behaviour [76]. Almost certainly, customer satisfaction has been claimed to be a predecessor for customer loyalty [77, 78]. The level of customer loyalty can be identified based on the length of relationship between customer and producer. Mostly, satisfied customers can be considered as an excellent customer because they will expose their excitement to the other customer [79]. Based on the prior empirical studies, the researchers put forward these hypotheses:

Hypothesis 7. There is a positive correlation between sustainable service quality and customer satisfaction in the residential housing industry.

Hypothesis 8. There is a positive correlation between sustainable service quality and customer loyalty in the residential housing industry.

Hypothesis 9. Customer satisfaction mediates the relationship between sustainable service quality and customer loyalty in the residential housing industry.

Hypothesis 10. There is a positive correlation between customer satisfaction and customer loyalty in the residential housing industry.

4. METHODOLOGY

The current study was designed to employ a quantitative method. The quantitative method chosen for this study because of researcher's willingness to answer the research questions through the data analysis process. Therefore, researchers employed the Structural Equation Modelling (SEM) technique to measure the research's hypothesis testing. SEM was used for the study because of the capability to measure the correlation among latent variables [80]. It is feasible for the current study, which investigated the correlation among latent variables like sustainability construction, reliability, assurance, tangible, empathy, responsiveness, customer loyalty, and customer satisfaction. The respondents' data were statistically evaluated through explanatory factor analysis to investigate Sustainable Service Quality dimension and customer loyalty through customer satisfaction, tailed by SEM (Structural Equation Modelling) and CFA (Confirmatory Factor Analysis).

The constructs of research were assessed employing seven-point Likert items, ranging from strongly disagree (1) to strongly agree (7). The measurement indicator of Sustainable Service Quality for this study adopted from [3, 15]: sustainability construction, reliability, assurance, tangible, empathy, and responsiveness. Sustainability construction employs nine indicators [3], reliability use five indicators, assurance with four indicators, tangible exercise four indicators, empathy involve five indicators, and

responsiveness determine four indicators derived [15]. The measurement of customer satisfaction adopting five indicators initiated by Fornell et al. [81] and improved by Wahjudi et al. [82] in the context of the residential housing industry. Lastly, customer loyalty was evaluated utilising six indicators from Wahjudi et al. [82].

5. RESULTS

Table 1. Validity test

Constructs	Item Loading
Sustainability (SUS)	
SUS1	0.824
SUS2	0.756
SUS3	0.817
SUS4	0.675
SUS5	0.539
SUS6	0.748
SUS7	0.763
SUS8	0.613
SUS9	0.575
Reliability (REL)	
REL1	0.552
REL2	0.769
REL3	0.612
REL4	0.843
REL5	0.728
Assurance (ASS)	
ASS1	0.767
ASS2	0.814
ASS3	0.573
ASS4	0.759
Tangible (TAN)	
TAN1	0.536
TAN2	0.653
TAN3	0.606
TAN4	0.731
Empathy (EMP)	
EMP1	0.542
EMP2	0.719
EMP3	0.654
EMP4	0.671
EMP5	0.850
Responsiveness (RES)	
RES1	0.723
RES2	0.692
RES3	0.568
RES4	0.594
Customer Satisfaction (CSA)	
CSA1	0.568
CSA2	0.682
CSA3	0.645
CSA4	0.527
CSA5	0.763
Customer Loyalty (CLO)	
CLO1	0.862
CLO2	0.647
CLO3	0.649
CLO4	0.791
CLO5	0.554
CLO6	0.532

Data were collected from the homeowners who build a house from housing developer which listed in Indonesia Stock Exchange. Currently there are sixty-three companies housing developer which categorised as public company. They have projects and branches all over the country. Of the 1,000

questionnaires distributed to the customers of housing developers, 215 responses were returned. There were 124 male respondents (57.68%) and 91 female respondents (42.32%) involved in this study. Since there is not enough publicly available data regarding the number of homeowners build a house in last three years, an online questionnaire was employed.

According to Table 1, it can be seen that all variables are discriminantly valid because all variables have indicator value greater than 0.50 [83]. It indicates that the loading value met the measurement model criteria for this study. Therefore, composite reliability and Cronbach's alpha mostly used to measure the reliability of internal consistency. The overall reliability test results in Table 2, specified that the questionnaire implemented in this study is reliable with the value of composite reliability and Cronbach's alpha, which was higher than 0.70 [83].

According to Hair et al. [83], R^2 examine the explained variance of the latent variable compare to its total variance. R^2 which has higher value means that the independent latent variable has better ability to explain the latent dependent variable. There are several threshold value for R^2 measurement namely weak (0.19), moderate (0.33), and substantial (0.67). Based on Table 3, customer satisfaction has the most substantial value by 0.758, while responsiveness has the weakest value by 0.276.

Based on Table 4, proposed hypothesis for this study are supported. The relationship between Sustainability construction and sustainable service quality (H1) is supported with β equal to 0.376, while the relationship between Sustainable Service Quality and customer loyalty through customer satisfaction (H9) is supported with β equal to 0.348. Hence, the relationship between reliability and sustainable service quality (H2) is supported with β equal to 0.459. The relationship between assurance and sustainable service quality (H3) can be accepted with β equal to 0.218. The relationship between tangible and sustainable service quality (H4) is reinforced with β equal to 0.329. The relationship between empathy and sustainable service quality (H5) is accepted with β equal to 0.162. Then, the association between responsiveness and sustainable service quality (H6) is supported with β equal to 0.392, while the connection between sustainable service quality and customer satisfaction (H7) is reinforced with β equal to 0.217. Therefore, the relationship between Sustainable Service Quality and customer loyalty (H8) fully mediated with customer satisfaction is reinforced with β equal to 0.421. Lastly, the relationship between customer satisfaction and customer loyalty (H10) is supported with β equal to 0.426.

Sustainability construction significantly and directly influenced Sustainable Service Quality by 37.6%, with β of 0.376 and a p-value of 0.034. In addition, Sustainable Service

Quality significantly and directly influenced customer satisfaction by 21.7%, with β of 0.217 and a p-value of 0.041. It denotes that H1 and H7 were supported. The results indicated that reliability significantly and directly influenced Sustainable Service Quality by 45.9%, with β of 0.459 and p-value of 0.029. It can be said that H2 was supported. The subsequent analysis specified that assurance significantly and directly influenced Sustainable Service Quality by 21.8%, with β of 0.218 and p-value of 0.017. It indicates that H3 was supported. Tangible significantly and directly influenced Sustainable Service Quality by 32.9%, with β of 0.329 and a p-value of 0.008. It shows that H4 was supported.

Table 2. Reliability test

Main Variable	Composite Reliability	Cronbach's Alpha
Sustainability	0.742	0.738
Reliability	0.850	0.742
Assurance	0.827	0.747
Tangible	0.783	0.735
Empathy	0.856	0.761
Responsiveness	0.726	0.726
Customer satisfaction	0.785	0.831
Customer loyalty	0.816	0.792

Table 3. R^2 test

Main Variable	R^2
Sustainability	0.498
Reliability	0.754
Assurance	0.523
Tangible	0.387
Empathy	0.586
Responsiveness	0.276
Customer satisfaction	0.758
Customer loyalty	0.628

Furthermore, Sustainable Service Quality significantly and directly influenced Sustainable Service Quality by 16.2%, with 0.162 score of β and 0.072 score of p-value. Responsiveness significantly and directly influenced Sustainable Service Quality by 39.2%, with β of 0.392 and p-value of 0.063. Sustainable Service Quality also significantly and directly influenced customer loyalty by 42.1%, with β of 0.421 and p-value of 0.026. It could be concluded that H5, H6 and H8 were supported. Besides, as mediating variable, customer satisfaction intervenes significantly and directly influenced the relationship between Sustainable Service Quality and customer loyalty by 34.8%, with β of 0.348 and p-value of 0.005. Lastly, it was unveiled that customer satisfaction significantly and directly influenced customer loyalty by 42.6%, with β of 0.426 and p-value of 0.003. Thus, H9 as well as H10 were reinforced.

Table 4. Research hypothesis parameter

Hypothesis	β	p-value	Results
H1: Sustainability construction \rightarrow Sustainable Service Quality	0.376	0.034	Supported
H2: Reliability \rightarrow Sustainable Service Quality	0.459	0.029	Supported
H3: Assurance \rightarrow Sustainable Service Quality	0.218	0.017	Supported
H4: Tangible \rightarrow Sustainable Service Quality	0.329	0.008	Supported
H5: Empathy \rightarrow Sustainable Service Quality	0.162	0.072	Supported
H6: Responsiveness \rightarrow Sustainable Service Quality	0.392	0.063	Supported
H7: Sustainable Service Quality \rightarrow customer satisfaction	0.217	0.041	Supported
H8: Sustainable Service Quality \rightarrow customer loyalty	0.421	0.026	Supported
H9: Sustainable Service Quality \rightarrow customer satisfaction \rightarrow customer loyalty	0.348	0.005	Supported
H10: customer satisfaction \rightarrow customer loyalty	0.426	0.003	Supported

6. DISCUSSION

The study results revealed that sustainability construction was identified as the most significant variable of sustainable service quality from housing developer influencing homeowners' customer satisfaction. Previous study found that sustainable behaviour significantly influences the customer satisfaction existence in the hospitality industry [31]. Earlier study authorises that sustainable service quality in the telecommunication industry ominously influence customer satisfaction [33]. These findings supporting the result of this study which affirm a significant association between sustainable service quality with customer satisfaction was identified. In the context of residential housing, it was notified that sustainable housing projects influence user satisfaction [84]. Later on, social sustainability altogether with economic sustainability affecting customer satisfaction in the building refurbishment [85]. Lately, it was confirmed that successful sustainable housing confidently correlated with customer satisfaction [86].

In this report, the reliability of housing developer positively influenced sustainable service quality by 45.9%. It means that this study's result supports the previous study, indicating that reliability of the refurbishment contractor ranked as the most significant aspect influenced service quality [87]. Recently, the other research confirms the positive relationship between reliability of the building contractor with service quality [44]. Therefore, assurance is notably essential to stimulate homeowners' satisfaction for this document. These finding supporting the previous study which mention that the assurance of building contractor affect customer satisfaction in the housing construction [38]. Earlier report sanctions the positive relationship of assurance toward customer satisfaction in the building maintenance industry [88]. Later, empathy considered as the least influential dimension on sustainable service quality for this study. These outputs support the study's findings that the empathy dimension has minimum impact to the constructions' client satisfaction [89]. It means that housing developer should be able to focus on the customer's needs to enhance sustainable service quality.

The result of this article indicates substantial relationship between tangible toward sustainable service quality in the residential housing industry. The preceding study verified that empathy has an essential association with service quality in the sector construction [43]. Former report also claims that tangible actively influence sustainable service quality in the housing construction projects [49]. Lastly, responsiveness become the latter dimension of sustainable service quality which impact customer satisfaction in this manuscript. It supporting former study which explains significant connection between responsiveness factor with customer satisfaction in the building construction sector [43].

Sustainable service quality for this research directly influences customer loyalty in the residential housing industry. These findings supporting the initial research which classify solid relationship between sustainable service quality to customer loyalty [33]. Henceforth, there is a robust indication that customer satisfaction intervenes the relationship between sustainable service quality and customer loyalty for this document. It corroborates prior article which explains that customer satisfaction facilitates a strong association between sustainable service quality and customer loyalty [33]. Previous script recognised that customer loyalty is affected both directly and indirectly through customer satisfaction [49]. This

manuscript also authorizes the resilient relationship between customer satisfaction and customer loyalty in the residential housing industry. This result is validating previous study which mention that generating customer loyalty should be based on the customer satisfaction level in the residential housing [90, 91]. This manuscript also strengthens previous result that declare positive relationship between customer satisfaction and customer loyalty in the medical industry [92], banking sector [93].

7. CONCLUSIONS

This study's objective was to measure customer loyalty based on sustainable service quality elements namely sustainability construction, reliability, assurance, tangible, empathy, responsiveness through the satisfaction of the customer as a mediator. This report adds to the existing literature by recommending and checking a model that evaluated the correlation among Sustainable Service Quality, customer loyalty through customer satisfaction. Predominantly, this article makes three significant contributions. First, the study validated that Sustainable Service Quality antecedents directly triggered the presence of customer satisfaction. This study revealed that Sustainable Service Quality antecedents provided a critical role in finding out customer satisfaction in the context of the residential housing industry. No preceding study is found that investigate Sustainable Service Quality model with customer satisfaction.

Second, the manuscript accelerates theory development in term of indirect and direct relationship between sustainable service quality model and customer loyalty in the residential housing. It is the first examination which announce the relationship between Sustainable Service Quality and customer loyalty. Third, report authorises that customer satisfaction arbitrates the relationship between Sustainable Service Quality model and customer loyalty in residential housing industry. Afterward, this study's findings encourage the housing developer companies to build a functional plan for generating customer satisfaction, directly initiating customer loyalty.

Even though this study contributes significantly to sustainable service quality knowledge in the residential housing industry, this research has its limitations. Firstly and foremost, the study was conducted in Indonesia as a developing nation, and the results attained in developed nations may differ from the present study, which needs more contemplation. Second, the future study should test this conceptual framework with alternative methodologies like mixed-method design. By combining both quantitative methods as well as qualitative methods, hopefully, the research result can gather more accurate perceptions. Lastly, enriching the conceptual framework using indicators of business performance, such as profit loss ratio, return on investment, as well as market share, will be a challenging effort, thus broadening article contribution both to academia and the industrial sector.

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