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# Determinants of Customer Satisfaction and Loyalty in Vietnamese Life-Insurance Setting

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**Abstract:** Sustainable services are often regarded as sustainable strategies and operations producing goods and services that satisfy customer needs and significantly improve social and environmental performance. To be sustainable, service providers must satisfy consumers' needs or otherwise they will become redundant and economically irrelevant. This paper presents the results of an empirical study on the determinants of customer satisfaction and loyalty in life-insurance services in Vietnam based on a database collected through a questionnaire survey of 1476 customers during 2017. A path analysis technique is applied to test the proposed framework on the direct and indirect relationship between variables. The results of statistical analysis indicate that customer satisfaction in life-insurance services is significantly explained by such factors as corporate image, service quality and perceived value. Our findings suggest that a life-insurance service provider should focus on enhancing service quality and corporate image in order to obtain customer satisfaction that leads to customer loyalty.

**Keywords:** determinants; customer satisfaction; customer loyalty; service quality and corporate image; Vietnamese life insurance

## 1. Introduction

Sustainable services are often regarded as sustainable strategies and operations offering goods and services that satisfy customer needs and significantly improving social and environmental performance. To be sustainable, service providers must satisfy consumers' needs or otherwise they will become redundant and economically irrelevant [1]. Empirical literature studies indicate that value, image, quality and price significantly influence customer satisfaction in service sectors including financial services [2–5]. Because of the liberalization of the financial services sector, insurance companies are operating in a highly competitive market so consequently focus on enhancing customer satisfaction and loyalty by improving service quality, customer interaction, image and reputation. During the 1980s, many empirical studies were conducted to measure service quality and investigate its impact on customer satisfaction. Researchers adopted different frameworks and measurement scales such as the technical and functional quality model [6], SERVQUAL [4], and the synthesized model of service quality [7]; SERVPERF [8], to study the relationship between quality and satisfaction in tourism, hospitality, banking, health and insurance. During the 1990s, many researchers conducted studies on perceived value which, from a marketing perspective, is often regarded as a trade-off between benefits and sacrifices perceived by customers in a supplier's offering. A large number of empirical studies investigated the importance and

effect of perceived value on customer satisfaction in services and produced mixed results. For example, Fornell et al. [9] indicated that customer satisfaction is more quality-driven than value- or price-driven. Crosby and Stephens [10] suggested that the linkage between value and customer satisfaction was not significant. More recently, Picon et al. [11] found that perceived switching costs and perceived lack of attractiveness of alternative offerings are significant mediators in the relationship between satisfaction and loyalty. This raises the question that further studies on the critical factor for satisfaction and loyalty in life insurance should be emphasized and researchers should include different aspects such as quality, image and price to study the perception value which may lead to satisfaction and loyalty.

Previous studies of sustainability efforts in Vietnam have often revolved around the manufacturing sector. However, industries and construction accounted for only about 24% of jobs in Vietnam and accounted for 41% of GDP in 2016 (GSO, 2016). Service providers, meanwhile, made up about 34% of jobs and accounted for 38% of GDP. In addition, many new booming service businesses in Vietnam such as internet-based retail, fast food franchises, online education service providers do not have the significant environmental impact of a steel plant or coal mine. Insurance is a booming business in Vietnam with more than 60 international and domestic service providers including 18 life-insurance companies and the total market size was about \$5 billion by 2016 (GSO, 2016). This has raised questions as to whether the purpose of sustainable development could be achieved and which factors Vietnamese life-insurance companies should emphasize in order to develop sustainably, enhance customer satisfaction, and secure high customer retention. Consequently, to attract more consumers and also to maintain customer loyalty, recognizing factors that influence customer satisfaction with life-insurance services is critical for the life-insurance service provider in Vietnam.

The literature suggests that studies on perceived value and customer satisfaction have been conducted mostly on goods, while there are fewer studies on services, especially on life-insurance services. In addition, most of the studies were conducted in developed countries, while fewer studies have been conducted in developing countries like Vietnam. Since 2010, researchers have become interested in investigating how Vietnamese service providers engage in sustainability initiatives to improve profits, enhance customer satisfaction, strengthen the community and protect the environment. However, most of the studies in Vietnam have emphasized the influence of service quality to the satisfaction and the loyalty of customer in a life-insurance setting from a consumer perspective. There is a small number of studies on the importance and roles of other factors such as image, price, and perceived value in the Vietnamese setting.

To fill the gap in the literature, this study investigates the critical factors for the success of satisfaction and loyalty in life-insurance in Vietnam. The authors first would like to examine the linkage between quality, image, price and perceived value, satisfaction and loyalty. Quality, image and price are expected to have a direct link with perceived value and customer satisfaction which lead to customer loyalty. The analytical results highlight the significant impact of quality and image on perceived value and customer satisfaction and suggest managerial implications for Vietnamese life-insurance companies in order for them to achieve customer loyalty.

The next part of this paper presents a literature review which is followed by an analytical framework, data collection, data analysis, discussions, implications and limitations, and conclusions.

## 2. Literature Review

This section summarizes the concepts and recent literature on corporate image, service quality, price, perceived value, customer satisfaction, and customer loyalty.

### 2.1. Corporate Image

Corporate image is often defined as the impression, beliefs, feelings and knowledge about a corporation in the minds of people [12–15]. Through the messages received from a corporation, customers would have an image of that corporation [16]. Corporate image is an inherently composite product of various factors reflecting the identity of an organization [17,18]. Corporate image is often interchangeable

with the reputation, brand or identity of a corporation from the view of customers and community [17,19,20]. In the context of the life-insurance setting, corporate image can be defined as corporate reputation, corporate branding and corporate social responsibility [21]. From marketing perspectives, customers often regard corporate image as a brand image referring to the whole corporation other than its individual products [22]. Previous studies suggested that good corporate image would lead to a good market position for the corporation.

### 2.2. Service Quality

Parasuraman et al. [4] introduced the SERVQUAL model that consisted of five dimensions of reliability, responsiveness, assurance, empathy and tangibles. The model conceptualizes service quality to be the comparison between expectation and perception relating to these five dimensions. Previous studies have shown that there is a link between service quality and customer satisfaction [23,24]. Moreover, prior studies such as [2,25,26] all agreed that there is a direct impact between service quality and customer loyalty and an indirect impact between service quality and customer loyalty through customer satisfaction.

### 2.3. Price

Margee, H., et al. [27] suggested that value or price quality is a determinant of customer satisfaction. It is similar to the findings of [28] indicating that value was a strong predictor of customer satisfaction. On the other hands, the result shown by [29] suggested that customers' perceptions of value describe a trade-off between the benefits they gain from a product/service relative to the sacrifice they perceive by paying the price.

### 2.4. Perceived Value

Perceived value is considered as the customer's overall evaluation of the value of a product or service based on the perception of what is received and what is given [30,31]. On the other hand, perceived value could be one of the most important measurements for creating a competitive advantage [32]. According to [10,13], perceived value is regarded as the determinant of the satisfaction of a customer. Thus, most customers expect to receive benefits that are greater than the cost. If they feel unexpected sentiments after purchasing, it will affect their perceived value.

### 2.5. Customer Satisfaction

Customer satisfaction plays an important role in business strategy and acts as a key factor in the sustainable development of companies [33,34]. Many studies define the concept of satisfaction. According to [35], the level of customer satisfaction is assessed by comparing a perception of a product/service in relation to the expectation of customers.

Many studies have proven the relationship between service quality and customer satisfaction [8,36]. In addition, according to [28,37], these studies have agreed that corporate image has a positive effect on perceived value and customer satisfaction. In addition, Young, et al. [38] suggested that perceived value positively influences customer satisfaction.

### 2.6. Customer Loyalty

There are different brands of life-insurance service provider in the Vietnamese market today. Maintaining customer loyalty is very difficult and challenging for any company. However, when customers feel satisfied with products/services, they will have a tendency to be loyal to companies. As a result of that, companies will develop in a sustainable way.

Service quality is part of customer satisfaction, and customer satisfaction will lead to customer loyalty, influence repurchase intentions [39,40], and reduce customer switching to other stores [41]. Previous studies show that there are both direct and indirect impacts between service quality and

customer loyalty [2,25,26]. Customer satisfaction is considered a mediator of the linkage between service quality and the satisfaction of customers. According to [42], service quality is a key factor that has the strongest impact on customer loyalty.

The most important aspect of customer satisfaction is to lead to customer loyalty and profitability [43], and also to increase repurchase intentions and customer retention [40]. Thus, customer satisfaction is important, leads to the financial success of a company, and contributes to the sustainable development of the company.

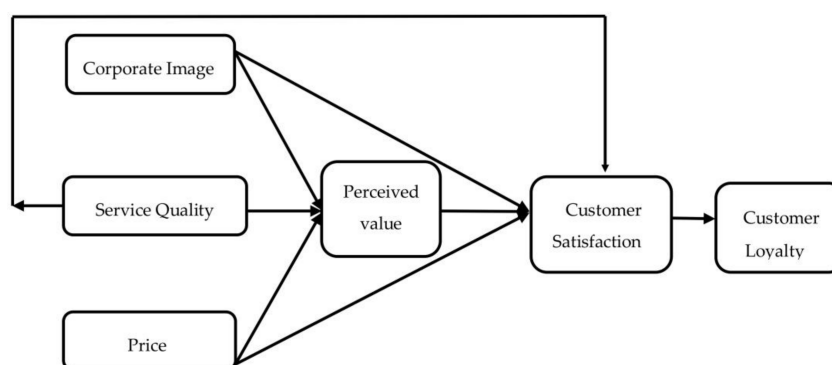
Additionally, in the studies of [36,39,40,43–45], customer loyalty is defined as a level of commitment/willingness to repurchase among customers in the future and to introduce other customers.

Empirical literature about life insurance is summarized in Table 1.

### 3. Analytical Framework

This study was conducted in three phases: (1) a review of literature related to corporate image, service quality, customer satisfaction, and customer loyalty in the context of life insurance in order to identify the relationship between these dimensions and propose an analytical framework; (2) the use of a primary qualitative method to construct the measurement scales based on deep-interviews; and (3) the use of a quantitative method to test the measurement scales for their reliability and validity, and analyze reliable and valid data in order to test the hypotheses using statistical techniques.

Based on literature [2,23,25–28,41,46], the authors would like to propose an analytical framework to examine the relationship between corporate image, service quality and price with perceived value, customer satisfaction and customer loyalty (Figure 1). From cited literature, the authors examine whether image, quality and price influence perceived value; and whether image, quality, price and perceived value influence the satisfaction which may lead to loyalty.



**Figure 1.** Framework of study. Source: Authors' proposal based on the literature review.

- *Corporate Image*: evaluates the extent of customer perception on media channels, corporate social activities, innovative activities and business ethics of the insurance company.
- *Service Quality*: measures the extent of customer perception of the terms and the clause of the insurance contract, keeping promises, customer services and insurance policies of the insurance company.
- *Price*: describes the extent of customer perception of insurance charges, the calculation of insurance costs, paying insurance premiums, handling complaints policies, and promotions of the insurance company.
- *Perceived value*: evaluates the extent of customer perception on the benefits, insurance coverage, and the value of insurance products.
- *Customer Satisfaction*: evaluates whether the customer was satisfied with the insurance services, insurance transaction, and their relationship with the insurance company.
- *Customer Loyalty*: evaluates whether the customer is willing to continue with the actual insurance company and introduce its service to others.

**Table 1.** Summary of empirical studies on determinants for customer satisfaction and customer loyalty in the service sector.

Author	Determinants of Customer Satisfaction	Determinants of Customer Loyalty	Data Collection Method and Analysis	Main Findings
Fornell, C., et al. [9]	Multidimensional construct: (1) Perceived quality; (2) Customer expectations; (3) Perceived value.	Multidimensional construct: (1) Perceived quality; (2) Customer expectations; (3) Perceived value; (4) Overall customer satisfaction; (5) Customer Complaints.	—Questionnaires. —Data collected from 250 current customers per each firm in the continental United States. —Regression analysis.	—Customization is more important than reliability in determining customer satisfaction. —Customer satisfaction is more quality-driven than value- or price-driven.
Crosby, L. A. and Stephens, N. [10]	Multidimensional construct: (1) Customer service failure; (2) Personal contact; (3) Product information (mass media); (4) Product information (outside personnel); (5) Direct company communication; (6) Company media advertising; (7) Customer service failure (corporate); (8) Satisfaction with contact person; (9) Satisfaction with core service.		—Questionnaires. —Data collected from 2311 life-insurance owners (Wave 1—Survey) and 1648 life-insurance owners (Wave 2—Follow-up). —Structural equation analysis.	—Relationship Marketing adds value to the service package. —With the technical quality variables and the relationship marketing variables held constant, customer satisfaction is unrelated to net price of the insurance.
Picon, A., Castro, I., Jose, L. [11]		Multidimensional construct: (1) Satisfaction; (2) Perceived switching costs; (3) Attractiveness of alternatives.	—Questionnaires. —Data collected from 785 customers of 74 companies in Spanish insurance sector). —SEM methodology.	—Perceived switching costs and perceived lack of attractiveness of alternative offerings are significant mediators in the relationship between satisfaction and loyalty.
Keh, H.T., et al. [20]	Corporate Social Responsibility (CSR).		—Questionnaires. —Data collected from 476 customers of insurance companies in Taiwan. —Structural equation modelling (SEM).	—The CSR initiatives of life-insurance companies have positive effects on customer satisfaction, corporate reputation, and brand equity. —The impacts of CSR initiatives on brand equity include informative advertising and persuasive advertising effects.
Rai, K.A., and Medha, S., [28]		Multidimensional construct: (1) Service quality; (2) Customer satisfaction; (3) Trust; (4) Commitment; (5) Corporate image; (6) Switching cost; (7) Communication.	—Questionnaires. —Data collected from 400 with 200 for public sector and 200 for private sector life-insurance companies in India. —Multiple regression and independent samples <i>t</i> -test.	—Indian customers do care about the public sector status of a financial service provider. —Service quality and commitment are the strongest predictors of customer loyalty in the Indian life-insurance industry.

Table 1. Cont.

Author	Determinants of Customer Satisfaction	Determinants of Customer Loyalty	Data Collection Method and Analysis	Main Findings
Singh, S., et al. [46]	Multidimensional construct: (1) Tangible; (2) Assurance; (3) Responsiveness; (4) Convenience; (5) Empathy.		—Questionnaires. —Data collected from 139 respondents from Delhi (India). —Factor analysis and correlation.	—Five factors such as responsiveness, assurance, convenience, tangible and empathy have an impact on customer satisfaction. —The age of respondents significantly determines the customer perception of service quality of life-insurance companies.
Evangelos Tsoukatos et al. [47]	SERVQUAL, GIQUAL scales: (1) Tangibles; (2) Reliability; (3) Responsiveness; (4) Assurance; (5) Empathy.		—Questionnaires. —Data collected from 519 individual customers of insurance companies in Greece. —Path analysis.	—Tangibles do not affect customer satisfaction. —Customer satisfaction has an impact on customer loyalty.
Rajat Gera [48]	Multidimensional construct: (1) Service quality; (2) Perceived value.	Multidimensional construct: (1) Service quality; (2) Perceived value; (3) Customer satisfaction.	—Questionnaires. —Data collected from 258 customers of life-insurance services in India. —Structural equation modelling (SEM).	—The key agent service quality attributes of product knowledge, empathy, reliability and trust are important antecedents of favorable behavioral outcomes. —Agent service quality, satisfaction and value perceptions have significant effects on recommendation intentions.
Sandhu, H.S., et al. [49]	Multidimensional construct: (1) Proficiency; (2) Media and presentations; (3) Physical and ethical excellence; (4) Service delivery process and purpose; (5) Security and dynamic operations; (6) Credibility; (7) Functionality.		—Questionnaires. —Data collected from 337 customers from the three cities of Punjab (India). —Structural equation modelling (SEM).	—Proficiency, physical and ethical excellence, and functionality have a significant impact on the overall service quality of the Life Insurance Corporation of India.
Siddiqui, M., et al. [50]	Multidimensional construct: (1) Assurance; (2) Personalized financial planning; (3) Competence; (4) Corporate image; (5) Tangibles; (6) Technology.		—Questionnaires. —Data collected from 868 customers who purchased at least one life-insurance product in India. —Structural equation modelling (SEM).	—Assurance and personalized financial planning are significant predictors of customer satisfaction with the insurance agent. —Personalized financial planning, technology, competence and corporate image have a significant impact on satisfaction with the functional services provided by a insurance company.
Vazifehdust, H., et al. [51]	SERVQUAL scale		—Questionnaires. —Data collected from 350 insurers in Iran. —Reliability test.	—Factors such as access, customer response time and trust in customer satisfaction are the most important factors. Among them, trust is the most important success factor for customer satisfaction in Iranian insurance companies.

Then, from cited literature, the authors established three hypotheses as follows:

The first hypothesis is related to the linkage between perceived value, corporate image, service quality, and price. As found in the cited empirical literature [30,31], perceived value was found to be strongly correlated to corporate image, service quality, and price. We expect that, in the context of life insurance in Vietnam, customer perception of value would be significantly influenced by customer perception on image, service quality and price. Thus, the first hypothesis is as follows:

**Hypothesis 1 (H1).** *Perceived value is directly related to corporate image, service quality, and price.*

The second hypothesis is related to the linkage between customer satisfaction, corporate image, service quality, price, and perceived value. As found in the cited empirical literature [23,24,28,36,37], customer satisfaction was found to be significantly impacted by corporate image, service quality, price, and perceived value. We expect that, in the context of life insurance in Vietnam, customer satisfaction would be significantly influenced by corporate image, service quality, price, and perceived value. Thus, the second hypothesis is as follows:

**Hypothesis 2 (H2).** *Customer satisfaction is directly related to corporate image, service quality, price, and perceived value.*

The third hypothesis is related to the linkage between customer loyalty, corporate image, service quality, price, perceived value, and customer satisfaction. As found in the cited empirical literature [2,25,26,39,40,43], customer loyalty was found to be strongly correlated to customer satisfaction, and customer satisfaction was found to be a mediator of the linkage between corporate image, service quality, price, and perceived value. We expect that, in the context of life insurance in Vietnam, customer loyalty would be directly influenced by customer satisfaction, and indirectly influenced by corporate image, service quality, price, and perceived value. Thus, the third hypothesis is as follows:

**Hypothesis 3 (H3).** *Customer loyalty is directly related to customer satisfaction and indirectly related to corporate image, service quality, price, and perceived value.*

To test the hypotheses, the survey instruments were constructed by adopting the frameworks measurement scales used in the cited literature [2,23,25–28,31,41]. In addition, to adapt the survey instrument to the characteristics and practices of life insurance in Vietnam, the authors conducted deep-interviews with 21 people including seven insurance managers and 14 long-term customers from seven life-insurance companies in Vietnam. This led to new survey question items being added in to evaluate customer perception of service quality.

- Corporate image (CI) is measured by five question items introduced by [21,22].
- Service quality (SQ) is measured by six question items introduced by [4] and proposed by the authors (items SQ 2).
- Price factor (PI) is measured by six question items suggested by [28,44] and proposed by the authors (items PI 4).
- Perceived value (PV) is measured by six question items introduced by [44,52].
- Customer satisfaction (CS) is measured by four question items suggested by [9,28,44].
- Customer loyalty (CL) is measured by four question items proposed by [9,15,28,36,39,40,44,45].

The questionnaire including 29 items is presented in Appendix A.

#### 4. Data Collection

Data used in this study were acquired from 1476 customers of seven life-insurance companies operating in Vietnam, including BaoViet Life, Prudential Vietnam, Manulife Vietnam, Dai-ichi Vietnam,

AIA Vietnam, Chubb Vietnam, and Hanwha Life Vietnam. These seven companies account for 90% of the market share in Vietnamese life insurance. Survey respondents are the customers of life-insurance companies operating in Vietnam. The list of potential respondents was decided by the information provided by life-insurance agencies. Invitations were sent to 1400 candidates (200 customers for each of seven life-insurance companies) in order to ask them to respond questionnaire and send these questionnaires back to authors. Finally, between 2016 April and 2017 November, we obtained 1387 valid responses (99%). Each customer was asked to indicate his/her perception about how satisfied they were with question items on a five-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Average, 4 = Agree, 5 = Strongly Agree).

The sample included 797 (54.0%) female customers and 590 (40.0%) male customers; 89 (6.0%) respondents did not answer to the question regarding their gender as shown in Table 2. In terms of age, 60 (4.06%) customers were under 29, 560 (37.94%) customers were aged 30 to 40, 487 (33.0%) customers were aged 40 to 50, and 369 (25.0%) customers were over 50 years old. In terms of occupation, 162 (10.97%) customers were clerical staff, 557 (37.73%) were workers, 49 (3.32%) were students, 280 (18.97%) were housekeepers and 428 (29.01%) had other types of occupation. In terms of personal income per month, 51 (3.45%) of customers earned less than \$200, 155 (10.5%) earned \$200–400, 340 (23.03%) earned \$400–600, 610 (41.33%) earned from \$600–800, and 320 (21.69%) of customers earned over \$800. In terms of education, 656 (44.44%) customers had a university degree, 708 (47.97%) had a master's degree, and 112 (7.59%) were high-school grade 12 or lower.

**Table 2.** Demography of survey respondents.

Gender	Male	590	Income per month (USD)	Under 200	51
	Female	797		200–400	155
	Other	89		400–600	340
Age	Under 29	60	Education	600–800	610
	30–40	560		Over 800	320
	40–50	487		High school or lower	112
	Over 50	369		University	656
Occupation	Clerical Staff	162	Master's degree	708	
	Worker	557			
	Student	49			
	Housekeeper	280			
	Other	428			

## 5. Data Analysis

### 5.1. Measurement Test

We started the analytical process by examining the reliability and validity of six measurement scales. Internal reliability and convergent reliability were tested and the results are presented in Table 3. We found that all of six constructs have alpha values higher than 0.6 which is normally regarded as the acceptance level. Most of the factor loadings of each item are more than 0.70. The composite reliability for all of six constructs was above the recommended 0.70 level [53]. In addition, average extracted variances (AVE) were calculated to evaluate convergent validity and the results show that all were above the 0.50 acceptance level recommended by [54]. A test for discriminant validity was conducted and the results are presented in Table 4. We found that the square root values of AVE of each construct were generally higher than the correlations between it and any other constructs in the model. In summary, the results of the measurement test demonstrated adequate reliability, convergent validity and discriminant validity.



**Table 3.** The internal and convergent validity.

Measurement Scales	Internal Reliability		Convergent Validity		
	Cronbach Alpha	Corrected Item-Total Correlation	Factor Loading	Composite Reliability	Average Variance Extracted
Corporate image (CI)	0.72	0.66	0.69	0.81	0.71
		0.63	0.70		
		0.67	0.73		
		0.72	0.74		
Service quality (SQ)	0.77	0.61	0.69	0.83	0.74
		0.69	0.69		
		0.68	0.74		
		0.77	0.74		
Price factor (PI)	0.71	0.68	0.73	0.84	0.79
		0.68	0.77		
		0.51	0.77		
		0.71	0.74		
Perceived value (PV)	0.68	0.66	0.78	0.81	0.84
		0.68	0.85		
		0.60	0.81		
		0.67	0.81		
Customer satisfaction (CS)	0.85	0.86	0.73	0.91	0.81
		0.82	0.72		
		0.82	0.80		
		0.79	0.81		
Customer loyalty (CL)	0.70	0.71	0.72	0.88	0.83
		0.61	0.85		
		0.73	0.87		
		0.68	0.91		

**Table 4.** Descriptive analysis and discriminant validity.

	Min	Max	Mean	Std.	1	2	3	4	5	6
<b>CI</b>	1.00	5.00	4.10	0.68	<b>0.84</b>					
<b>SQ</b>	1.00	5.00	3.14	0.73	0.70 **	<b>0.86</b>				
<b>PI</b>	1.00	5.00	3.52	0.75	0.69 **	0.72 **	<b>0.89</b>			
<b>PV</b>	1.00	5.00	3.45	0.82	0.65 **	0.70 **	0.61 **	<b>0.92</b>		
<b>CS</b>	1.00	5.00	3.52	0.75	0.66 **	0.67 **	0.63 **	0.65 **	<b>0.90</b>	
<b>CL</b>	1.00	5.00	3.56	0.82	0.60 **	0.69 **	0.64 **	0.64 **	0.56 **	<b>0.91</b>

Diagonal elements (bold) are the square root of variance shared between the constructs and their measures (AVE). Off-diagonal elements present binary correlations among constructs. For discriminant validity, the diagonal elements should be larger than the off-diagonal elements. Note: \*\*: significant at 0.00.

## 5.2. Hypothesis Testing

The authors utilized path analysis to test the established framework on the relationship between corporate image, service quality, price factor, customer satisfaction, and customer loyalty. Regression analysis was conducted to determine the standardized regression coefficients which were used to identify the path coefficient between each independent variable and dependent variable. In addition, the direct and indirect effects between variables were also identified based on the path analysis results. The tool to analysis data was IBM SPSS/AMOS release 23. The path analysis procedure was started by constructing a path diagram which presented the relationships between six variables and the causal direction between them (Figure 1). After completing statistical analysis, we obtained an output path diagram (Figure 2) which illustrated the relationships between 6 variables as they actually exist, according to the analysis conducted. The correlations between all pairs of six variables were then decomposed into the sum of their direct and indirect effects.

Prior to conducting path analysis, the descriptive analysis and correlation analysis were conducted and the results are presented in Table 5. It was found that, in terms of mean value, the evaluation of customers on corporate image was relatively higher than others while the evaluation on service quality was relatively lower than others. The correlation analysis results also present high correlation coefficients between the variables.

**Table 5.** Summary of path analysis.

Dependent Variable	F	P	R <sup>2</sup>	Independent Variable	B	t	P	VIF
Perceived value	9.42	0.000	0.530	Corporate image	0.13	0.92	0.320	2.31
				Service quality	0.34 **	6.25	0.000	3.42
				Price	0.18	5.02	0.132	2.63
Customer satisfaction	9.34	0.000	0.620	Corporate image	0.17 **	3.72	0.000	3.17
				Service quality	0.41 **	6.62	0.002	3.45
				Price	0.08	2.13	0.421	2.41
				Perceived value	0.26 **	3.32	0.001	2.99
Customer loyalty		0.000	0.560	Customer satisfaction	0.70 **	23.97	0.000	1.00

Note: \*\*: significant at 0.00.

To test the hypotheses, three multiple regression models were developed with significant levels set at 5% as suggested in the literature and the results of the analysis are shown in Table 4.

- Model 1: It was found that service quality significantly impacts perceived value. A combination of corporate image, service quality and price explain 53% of the variability of perceived value.
- Model 2: It was found that corporate image, service quality, and perceived value significantly impacts customer satisfaction. A combination of corporate image, service quality, price and perceived value accounts for 62% of the variability of customer satisfaction.
- Model 3: It was found that customer satisfaction significantly impacts customer loyalty and explains 56% of the variability of customer loyalty.

To measure the multi-collinearities among independent variables, a variance inflation factor (VIF) value for each independent variable was calculated. Setting the acceptable value at 10 as suggested in the literature [55,56], the results show that the multi-collinearities among independent variables, if they existed, did not significantly affect the results of regression analysis.

Next, standardized regression coefficients were used to calculate the path coefficients between variables, as summarized in Table 6. Figure 2 describes the direct effects among variables based the results of path analysis. The arrows show direct connections between two variables along with values of direct effects. Path coefficients between service quality and perceived value and customer satisfaction, between service quality and corporate image and perceived value and customer satisfaction, and

between customer satisfaction and customer loyalty are relative high while the coefficients between price and customer satisfaction is found to be lower than others. Table 7 summarizes model fit indexes which pass minimum acceptance levels recommended in the literature [53]. The results of statistical analysis suggested that Hypotheses 1, 2 and 3 should be accepted.

Table 6. Decompositions of path coefficient.

Dependent Variable	Independent Variable	Direct Effect	Indirect Effect	Total Effect
Perceived value	Corporate image	0.18	0.00	0.18
	Service quality	0.34	0.00	0.34
	Price	0.13	0.00	0.13
Customer satisfaction	Corporate image	0.17	0.39	0.56
	Service quality	0.41	0.60	1.01
	Price	0.08	0.44	0.52
	Perceived value	0.26	0.00	0.26
Customer loyalty	Customer satisfaction	0.70	0.02	0.72

Table 7. Model fit summary.

Model Fit	Recommend Value	Value
Chi square		31.26
Comparative Fit Index (CFI)	≥0.90	0.921
Root Mean Square Error of Approximation (RMSEA, 90% confidence interval)	0.00; 0.08	0.065
Normed Fit Index (NFI)	≥0.90	0.90
Incremental Fit Index (IFI)	≥0.90	0.92
Parsimony Normed Fit Index (PNFI)	≥0.70	0.79

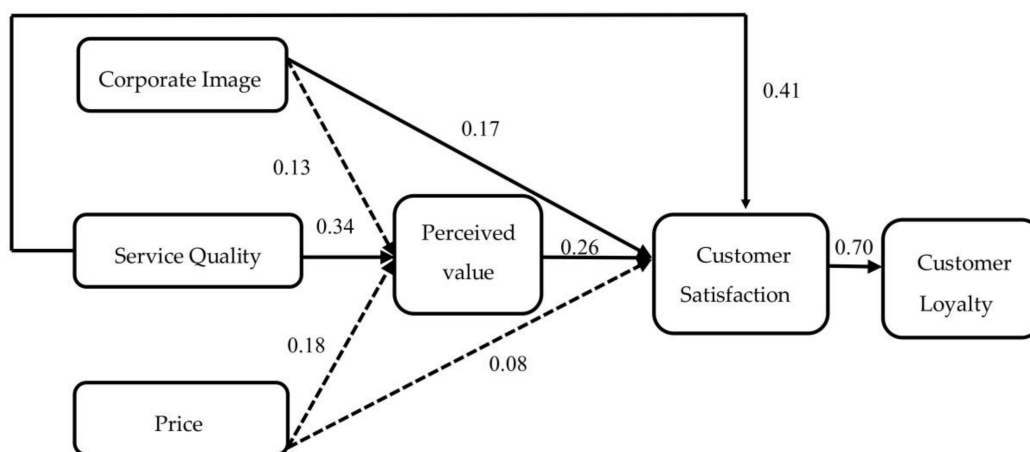


Figure 2. Model summary.

### 6. Discussions, Implications, and Limitations

Previous sections present the analytical framework, research hypotheses, and the results of path analysis with multiple regression models. The results of path analysis suggest that three hypotheses are partially supported. The main findings and implications for service providers are summarized below.

Firstly, the main findings of this study indicate the significant linkages between service quality and perceived value and customer satisfaction, between service quality and corporate image and perceived value and customer satisfaction, and between customer satisfaction and customer loyalty. The results reveal the important roles of service quality and corporate image in life insurance in Vietnam. Service

quality was found to strongly impact both perceived value and customer satisfaction, while corporate image slightly impacts perceived value and significantly impacts customer satisfaction. The price factor, however, shows a non-significant impact on both perceived value and customer satisfaction. This finding indicates that customers of life-insurance services in Vietnam seriously consider the service quality and the image of the service provider. Customer perception of value is significantly influenced by service quality and the corporate image of service providers in Vietnam.

Secondly, the statistical results suggest the way that life service providers in Vietnam should improve customer satisfaction and loyalty for sustainable development. Companies should emphasize improving service quality and corporate image, which are regarded as the driver for customer satisfaction. Service quality can be improved by several practices such as: performing service quickly and giving attention to each customer's needs; providing policy and contract information and documentation correctly; introducing contract terms clearly for customers with supplementary explanations for specialized terms in the contract; and completing the service process to make it convenient for customers. To do that, ensuring the competency of service personnel is very important. Companies should provide training courses for their staff and agencies on knowledge of life insurance, communication and problem-solving skills, etc. To enhance customer satisfaction, another priority is to improve corporate image which reflects the reputation, corporate branding, corporate social responsibility (CSR), interaction between companies with customers, and business ethics. The analysis results indicate the fact that Vietnamese consumers today are not only concerned about the quality of products/services, but also the way in which the companies make the product/service. Since 2010, green consumption concepts have been widely introduced to Vietnamese consumers and producers. Vietnamese consumers have become mindful about green labels, environmental protection, and social aspects of business while producers have seriously studied and implemented several practices on cleaner production. In the service area, the CSR concept is being implemented step by step along with lean management practices. Financial services, for example, are considering the adoption of the green banking concept and offering a broad range of products and services that give investors access to sustainable investment opportunities.

Thirdly, this study contributes to service studies literature by providing the empirical evidence on the significant effects of service quality and corporate image in life insurance from the customer perspective in a Vietnamese context. The connection between service quality and corporate image and customer satisfaction and loyalty should be regarded as the important managerial and research topic because customer satisfaction and customer loyalty are often viewed as the drivers for enhancing the competitive advantages of a company in a competitive market and are the significant determinant in corporate sustainable management. The findings on the importance of corporate image is similar to the previous studies such as [6,19]. In addition, the findings on the significant impacts of service quality on customer satisfaction and customer loyalty are found to be in line with previous studies [3,6,11,28,44,46,51,57,58]. We found that the path coefficients between perceived value and corporate image, between perceived value and price, and between customer satisfaction and price, are relatively lower than the others. This can be explained by the nature and characteristics of the life-insurance service where the products are designed to meet the conditions and needs of each customer. With different offers from life-insurance companies, customers are free to choose the right life-insurance service package based on their financial resources. Contracts with benefits and payments terms would be made based on the negotiation and agreement on financial terms between customers and service providers. In addition, there are some similarities in life-insurance products offered by different insurance companies. In this circumstance, customer perceived value and customer satisfaction are strongly dominated by the way a company approaches and takes care of customers, rather than the price factor [10].

An interesting finding in this study for life-insurance services relates to the role of perceived value which has not been widely investigated in the Vietnamese context. The analysis results indicate that, during the period of economic growth in Vietnam, customers are more concerned about the quality

and image of the life-insurance service provider. This means that, to be competitive and sustainable, service quality and corporate image should be given a high priority from a strategic perspective.

This study also has limitations. In terms of methodology, this study utilizes survey data gathered via self-reported questionnaires and individual bias in reporting may exist. Because of the time and resource limitation, this study can only rely on external customers' perceptions, and on seven Vietnamese life-insurance companies. These limitations restricted the scope of the studies and the conclusion of the study.

To overcome these limitations, future research should be conducted with an expanded sample which allows the researchers to measure satisfaction of both external and internal customers. Then, future studies should develop a new measurement construct to capture customer perceptions of corporate image, service quality, etc. besides the existing scales used in this study. For example, future studies could focus on the role of life-insurance agencies in introducing new products and interaction with customers; the utilization of information system in service quality management; and perceived switching cost from a customer perspective.

## 7. Conclusions

To be sustainable, service providers must satisfy consumers' needs by emphasizing the enhancement of customer relations, image, quality, and added value. This study applies statistical techniques to analyze the customer perception of image, service, price, and perceived value in Vietnamese life-insurance services. The results indicate that customer satisfaction and customer loyalty are significantly influenced by corporate image, service quality and perceived value. Our findings suggest that Vietnamese life-insurance companies should focus on enhancing service quality and corporate image in order to satisfy customers and maintain customer loyalty, thereby helping companies to develop sustainably. The empirical evidence provided by this study will be useful for future research investigating the critical factors for achieving satisfaction and loyalty in sustainable services in developing countries.

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## Appendix A. Questionnaire Items and Measurement Analysis

Measurement Scales
<b>Corporate Image (CI)</b>
CI1-The insurance company frequently appears in media channels (newspaper, television...).
CI2-The insurance company has a good reputation since it is always involved in corporate social responsibility (CSR) activities.
CI3-The insurance company is very innovative and pioneering (removed).
CI4-The insurance company is open and always interacts well with customers.
CI5-The insurance company always shows business ethics.
<b>Service Quality (SQ)</b>
SQ1-The insurance company provides access to information on products or services offered.
SQ2-The terms and the clauses of the insurance contract are clear and easy to understand.
SQ3-The insurance company performs the services as promised.
SQ4-The insurance company always provides documentation correctly.
SQ5-The insurance company provides customer service quickly and gives attention to each customer's needs (removed).
SQ6-The insurance company always provides various insurance policies to customers.

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**Price Factor (PI)**

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- PI1-Life-insurance charges are very reasonable.  
 PI2-Charges for other services of the insurance company are very reasonable (removed).  
 PI3-The calculation of insurance costs is easy to understand.  
 PI4-Commit to pay the insurance premiums quickly and carefully.  
 PI5-Insurance company has various ways to handle customer complaints.  
 PI6-Insurance company has many attractive promotions for customers.

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**Perceived Value (PV)**

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- PV1-The company's insurance policy provides additional benefits.  
 PV2-The company's insurance policy provides flexibility.  
 PV3-The insurance coverage meets my expectations.  
 PV4-I am generally aware about the value of insurance products that I had purchased.

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**Customer Satisfaction (CS)**

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- CS1-Overall, I feel satisfied with the insurance services provided.  
 CS2-Overall, I feel satisfied after each insurance transaction with my insurance company.  
 CS3-Overall, I feel satisfied with the relationship between me and my insurance company.  
 CS4-In short, I feel satisfied with my insurance company.

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**Customer Loyalty (CL)**

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- CL1-I will recommend my insurance company to my friends, and family members or others.  
 CL2-I will speak well about my insurance company with others.  
 CL3-Although there are many insurance companies, I will still continue with my actual insurance company.  
 CL4-I will continue with my actual insurance company although other companies launched many promotions.
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