

## Investment relationship corporate social responsibility and profitability of insurance enterprises



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### ABSTRACT

#### Article History

Received: 2 May 2025

Revised: 10 June 2025

Accepted: 25 June 2025

Published: 3 July 2025

#### Keywords

Corporate social reporting  
Corporate social responsibility  
Insurance consumer  
Insurance employee  
Profitability  
Social responsible investment  
Stakeholders  
Vietnam.

#### JEL Classification:

G22; O15.

The objective of this study is to clarify the impact of social responsibility on the profitability of insurance companies operating in Vietnam. As a service business, the vessel absorbs risk for the economy. The database was collected online by the authors. The survey period was from May 2024 to November 2024. Secondary data were collected from 2013 to 2023. The research results were based on 712 responses from insurance company employees, insurance consumers, and domestic insurance experts. Using quantitative research methods, PLS-SEM linear structural modeling was performed using SPSS and AMOS 20 software. The results indicate that CSR is positively correlated with the profitability of insurance businesses, primarily through the responsibility of insurance companies to consumers. Recommended solutions include: 1) Commitment to the quality of CSR reporting; 2) Protecting consumer rights through model transaction contracts; 3) Implementing a code of business ethics; 4) Addressing issues in the insurance compensation settlement process. The study supplements basic theories for insurance businesses and recommends that they actively invest in CSR programs to enhance profitability.

**Contribution/ Originality:** This is a new study that has proven that investment in CSR impacts improving profitability through the factor of consumer-oriented CSR. The research results are significant for the insurance industry in developing countries such as Vietnam.

## 1. INTRODUCTION

One of the most important requirements following the recent COVID-19 pandemic in the financial market is corporate social responsibility (CSR). Organizations such as the United Nations Global Compact (UN Global Compact) (Voegtlin & Pless, 2021), the UN-supported Principles for Responsible Investment (UN PRI) (Teti, Dell'Acqua, & Zocchi, 2012), the Global Reporting Initiative (GRI) (Fuente, García-Sánchez, & Lozano, 2017), the Voluntary Carbon Disclosure Project (CDP) (Depoers, Jeanjean, & Jérôme, 2016), the Sustainability Accounting Standards Board (SASB) (Pizzi, Principale, & De Nuccio, 2023), the US Sustainable and Responsible Investment Forum (US SIF) (O'Rourke, 2003), the European Sustainable Investment Forum (EUROSIF) (Baumast, 2012), and also the social responsibility of businesses in ASEAN (Baumast, 2012; Syam, Aqimuddin, Nurcahyono, & Setiawan, 2020) confirm concerns about corporate social responsibility.

Despite providing services and absorbing risks for the economy, insurance firms have still been devoting significant resources to CSR programs focusing on community-based social initiatives, contributing to an improved quality of life. CSR is promoted by global non-profit organizations. Notably, the United Nations environmental initiative, which launched the Principles of Sustainable Insurance (PSI) in 2012, emphasizes incorporating ESG or CSG factors into the process of developing insurance policies. Insurance decisions raise awareness among relevant parties and actively promote CSR. Recent expansion programs for the insurance sector (FI-PSI, 2019) hay (FI-PSI, 2020) are guidance documents on ESG, CSG, and the benefits of integrating these into the insurance business.

The origin of CSR is systematized and proposed by Carroll (1991). Originating from the argument that the responsibility of businesses is to bring maximum profits to shareholders who invest capital. However, according to Carroll (1991), factors such as the environment, employees and consumers are important and legitimate stakeholders to whom businesses need to be responsible. From this point on, businesses must balance their business activities and at the same time implement CSG obligations to relevant parties, to meet both legal and ethical requirements.

In Vietnam, in recent years, the economy has still encountered many difficulties, and development has not been stable due to the negative influence of various factors. However, insurance firms continue to maintain high growth momentum. As of the end of December 2023, the insurance market comprises 82 insurance brokerage enterprises and insurance service businesses, including 19 life insurance enterprises, 2 reinsurance enterprises, and up to 29 insurance brokerage firms. The total assets of insurance firms amount to 913,336 billion VND, with total market equity of 190,227 billion VND. Total investment capital in the economy is 757,652 billion VND, and total insurance premiums through insurance brokers are 16,824 billion VND. The total market premium revenue reaches 228,026 billion VND, with compensation and insurance benefit payments totaling 84,196 billion VND. Many companies have large assets exceeding 1,000 billion VND, such as BVH, Manulife, Prudential, and SunLifeVN. Additionally, there are numerous insurance firms with smaller asset scales and profitability, such as AON, AAAA, and GeneraliVN Table 1.

**Table 1.** Total assets and profitability of some typical insurance enterprises.

No.	Abbreviated name	Business name	Total assets as of December 2023 (Billion VND)	Profitability on assets		
				2021	2022	2023
1	AIC	Aviation insurance joint-stock corporation	4.008	0.50%	0.50%	0.61%
2	BHI	Saigon - Hanoi Insurance Joint Stock Corporation	4.485	0.49%	0.49%	0.35%
3	BIDV MetLife	BIDV MetLife Life Insurance Company Limited	5.414	0.92%	0.92%	1.49%
4	BVH	Bao Viet Group	221.102	1.42%	1.42%	0.84%
5	Cathay Life	Cathay Life Insurance Company Limited - Vietnam	27.548	0.23%	0.23%	5.24%
6	FubonVN	Fubon Life Insurance Company Limited	1.807	-1.86%	-1.86%	2.19%
7	Generali VN	Generali Life Insurance Company Limited	16.708	1.04%	1.04%	4.65%
8	Hanwha Life VN	Hanwha Life Vietnam Insurance Company Limited	18.386	1.18%	1.18%	4.33%
9	LPBankI	LPBank insurance joint stock company	1.670	0.14%	0.14%	0.00%
10	Manulife	Manulife Company Limited (Vietnam)	118.633	-5.10%	-5.10%	2.76%

No.	Abbreviated name	Business name	Total assets as of December 2023 (Billion VND)	Profitability on assets		
				2021	2022	2023
11	Phu Hung Life	Phu Hung Life Insurance Joint Stock Company	1.696	-24.67%	-24.67%	-34.44%
12	Prevoir	Mirae Asset Prévoir Life Insurance Company Limited	3.614	0.51%	0.51%	6.67%
13	Prudential	Prudential Vietnam Life Insurance Company Limited	176.672	0.32%	0.32%	0.00%
14	SunLifeVN	Sun Life Vietnam Insurance Company Limited	20.835	-7.47%	-7.47%	-4.42%
15	VASS	Vien Dong Insurance Joint Stock Company	1.056	0.18%	0.18%	0.05%

In addition to business activities, insurance firms have been dedicating large resources to prioritize investing in social activities, focusing on the fields of education, healthy living and safety..., helping to spread the The message "willing to share", contributes to making life more meaningful and beautiful and has been enthusiastically received by customers. Many meaningful community activities have been implemented such as Many meaningful activities for the community "Dai-ichi Life - Road of Love 2022" has recorded a total of 4,248,786 km completed, with nearly 15,000 members together accompanying, contributing 4 billion VND to the community <sup>1</sup>. Dai-ichi Life Vietnam has also implemented the project "Connecting Millions of Love - Happiness for Everyone." The project will be carried out from October 2022 throughout 2023, featuring a series of practical, comprehensive, and large-scale programs and activities. It aims to bring peace of mind and happiness to customers, partners, and employees with their families and communities. Additionally, the project promotes green growth, environmental protection, and ecosystem preservation, focusing on the efficient use of resources and energy.

With Bao Viet Group, this organization recently donated 500 million VND to support the Fund for the Poor during the peak month "For the Poor" in 2022 (October 17, 2022 - November 18, 2022). In addition to supporting the Fund for the Poor, Bao Viet also registered to implement social security activities with an amount of 20.8 billion VND, bringing the total amount allocated for activities supporting the poor in 2022 to 21 billion VND. These social security activities include supporting the construction of schools and medical stations in various localities across the country to contribute to hunger eradication and poverty reduction. In addition, the International Yoga Day program is organized annually by Bao Viet in many provinces and cities with many meaningful activities that have spread the spirit of healthy living, helping to improve the quality of people's lives, for a better society, peace and prosperity <sup>2</sup>.

Meanwhile, Prudential insurance firms are always determined to pursue long-term projects in the field of education and safety for children. Among them, the outstanding and widely accepted effects are the smart financial management education program "Cha-Ching" and the project "Going to School Safely". Not only focusing on children, facing a social problem of population aging in Vietnam, Prudential initiated the media project "Freedom at 50" and conducted national research on "Readiness for independent living in old age" together with the Institute of Social Labor Sciences (under the Ministry of Labor, War Invalids and Social Affairs) and the Institute of Medical and Sociological Research <sup>3</sup>.

In recent years, scholars have tried to clarify the impact of CSR on the profitability of insurance enterprises, studies include: (Czerwiński, 2013; Hsu, 2012; Olowokudejo, Aduloju, & Oke, 2011; Pelosa, 2006; Tierney &

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Farmer, 2011; Trynchuk, Khovrak, Dankiewicz, Ostrowska-Dankiewicz, & Chushak-Holoborodko, 2019; Wang, Zhao, & Zhou, 2018; Yadav, Jain, & Singh, 2016)... have clarified the relationship between insurance consumer responsibility and profitability of insurance firms. Research Ramakrishnan, Hishan, Shahabuddin, and Kanjanapathy (2016) and Manokaran, Ramakrishnan, Hishan, and Soehod (2018) have clarified the relationship between responsibility for general environmental protection and the profitability of insurance firms. Research by Peloza (2006), Das (2013) and Ullah, Muttakin, and Khan (2019) has clarified the relationship between a business's responsibility to its employees and the profitability of insurance firms. Risks and research by Scholtens (2011), Ehioghiren and Eneh (2019), Ngatia (2014), and Otavová, Gláserová, and Hasíková (2023) have clarified the relationship between responsibility to the social community and the profitability of insurance businesses. However, studies have not comprehensively examined whether CSR factors actually improve profitability for businesses, a gap that needs to be carefully considered.

## 2. RESEARCH OVERVIEW, THEORETICAL BASIS

The research is based on the CSR theoretical framework proposed by Carroll (1991), through which corporate social responsibility is considered to include four main aspects: consumer-oriented CSR, responsibility for protecting the general environment, corporate responsibility to employees, and social community responsibility. Based on this, the author of the article clarifies the following relationships:

### 2.1. *The Relationship between Responsibility to Insurance Consumers and the Profitability of Insurance Enterprises*

The consumer-oriented CSR of service providers is to make efforts to realize their commitment to help customers achieve the best things in life. When businesses are responsible to consumers, revenue will increase, and profits will grow. After all, to increase sales, there is no other way than increasing the number and quality of buyers.

In recent times, there have been many studies showing that consumer liability insurance firms will improve profitability, specifically.

According to Olowokudejo et al. (2011) examine the relationship between CSR and some aspects of organizational effectiveness of insurance enterprises doing business in Nigeria. The database covered by insurance companies was field-surveyed by the authors in Logos using a logically structured questionnaire (Olowokudejo et al., 2011). The feedback information was analyzed statistically, descriptively, and correlatively. The results have shown that insurance firms fully participate in all aspects of CSR, including responsibility to consumers, employees, society, and the environment. A major finding is that the business performance of certain aspects of insurance is correlated with active participation in CSR activities. However, insurance firms still lack awareness and do not have enough information to identify social needs. A lack of a qualified workforce and unfavorable economic factors often hinder them from implementing CSR.

According to Hsu (2012), the results of CSR advertising effects on corporate reputation and brand value in the life insurance industry in Taiwan were investigated. The findings indicate that insurance customer awareness is strongly related to the CSR programs of life insurance firms. Additionally, these businesses tend to achieve higher customer satisfaction, similar to their brand perception. Their brands and values have been effectively communicated (Hsu, 2012). The impact of CSR initiatives on brand equity includes informational advertising and persuasive advertising effects. The author concludes that informational advertising effects and advertising effects that convince consumers about CSR are effective.

According to Czerwiński (2013), the goal is to determine the level of expectations of parties involved in investing in CSR programs in the insurance industry. The relationship between CSR activities and the brand image of the enterprise (Czerwiński, 2013). By conducting document analysis and reviewing multiple sources related to CSR, the author considers the fundamental differences in regulatory requirements between the United States and

Europe. As a result, it is necessary to strengthen CSR activities for insurance firms, thereby improving the efficiency of relevant parties, including insurance customers.

According to Trynchuk et al. (2019), higher education can communicate the interest of insurance owners and customers in CSR investment in insurance firms through training methods in universities (Trynchuk et al., 2019). This needs to clarify the role of universities in disseminating knowledge on implementing CSR in the insurance sector. The authors conducted a survey of 536 students majoring in finance at universities in Ukraine in two months of 2018. The results showed that students' awareness of CSR is still limited, especially in the insurance industry. This reflects the training process. Universities need to focus on worldview, experimental orientation, and collaborative training to improve students' knowledge of CSR because they are consumers and future human resources of the insurance industry.

Recent studies show that the more insurance firms invest in consumers and commodity markets, the more profitable their businesses are (Peloza, 2006; Tierney & Farmer, 2011; Wang et al., 2018; Yadav et al., 2016),...

Based on theory, the article proposes the following hypothesis:

*H<sub>1</sub>: Higher consumer-oriented CSR has a positive impact on the profitability of insurance firms.*

## *2.2. The Relationship between Responsibility for General Environmental Protection and the Profitability of Insurance Enterprises*

There are many studies showing the relationship between environmental protection responsibility and the profitability of insurance firms, specifically.

According to Ramakrishnan et al. (2016), the industrialization process somewhat affects the environment, natural disasters and floods increase. With the goal of clarifying the responsibilities of listed insurance enterprises in Malaysia in flood relief and mitigation through investing in CSR programs, the results show that the majority of insurance enterprises with flood-related CSR initiatives are foreign-owned. Furthermore, these businesses have an institutionalized approach to CSR. The results also indicate that domestic insurance companies do not contribute significantly to CSR programs related to flood mitigation (Ramakrishnan et al., 2016). The research team's conclusion indicates that foreign insurance firms actively participate in CSR to minimize floods and natural disasters affecting people and society. Meanwhile, domestic insurance companies have not demonstrated this. It is recommended that domestic insurance companies increase efforts in CSR programs to enhance relief and flood mitigation initiatives for climate-related disasters in Malaysia.

According to Manokaran et al. (2018), with the aim of clarifying CSR investment on financial performance in insurance companies in Malaysia, there is evidence that CSR investment activities are significantly correlated with the financial performance variable ROA, While variables ROE and EPS are insignificant (Manokaran et al., 2018).

*H<sub>2</sub>: Higher responsibility for environmental protection has a positive impact on the profitability of insurance firms.*

## *2.3. The Relationship between an Enterprise's Responsibility to Employees and the Profitability of an Insurance Enterprise*

One of the important factors that contribute to the stable development of insurance firms is the quality of human resources. Insurance businesses need to build and develop human resources with an appropriate structure and qualifications, who are dynamic and capable of ensuring market competitiveness. When human resources meet the scale, structure, and quality, it will improve profitability for insurance firms. Recent experimental studies support this, specifically:

According to Peloza (2006), social responsibility is a trend not unique to an individual business. With the goal of clarifying the relationship between CSR and corporate governance in the insurance industry. After reviewing current corporate governance models and mechanisms (Peloza, 2006). The results indicate that there is a relationship between institutional investors and corporate social responsibility. The authors recommend increasing investment in CSR and establishing it as a standard practice within the industry.

According to Das (2013) to clarify the extent to which insurance firms in India apply CSR in practice. The database collected longitudinally by the author includes 26 insurance companies in India, data is published annually. The data collection period is from 2002 to 2010, skipping some years without enough information (Das, 2013). As a result, there is evidence that non-life insurance firms disclose more limited information than life insurance enterprises. The study also revealed that life insurance firms disclose more information than other non-life insurance businesses. Additionally, private insurance firms disclose more information than others. However, according to the author, factors such as the lack of CSR reporting have not been considered, so further in-depth research is needed, especially in emerging economies.

Based on empirical studies, this study proposes the following hypothesis:

*H: Higher responsibility towards employees of a business has a positive impact on the profitability of an insurance business.*

#### 2.4. The Relationship between Responsibility to the Social Community and Profitability of Insurance Enterprises

Furthermore, corporate social responsibility enables organizations to develop and provide resources effectively. Studies to clarify this relationship:

According to Scholtens (2011) use a transparent theoretical framework to evaluate the CSR of life insurance enterprises, hybrid insurance companies, financial corporations and general insurance companies. Research scope covers more than 20 countries and 150 businesses. The results show that there are significant differences between insurance types, and even within countries (Scholtens, 2011). Additionally, the author found that the social responsibility and ethical aspects of CSR are better implemented in the business activities of insurance companies than the environmental responsibility aspects.

According to Ngatia (2014) the author clarifies the relationship between whether corporate social responsibility has an impact on promoting the financial performance of insurance firms in Kenya. Based on a database of 20 insurance companies collected from 2009-2013 and other macro data such as inflation rate, treasury bonds, and deposit interest rates. Using descriptive, inferential and regression statistical analysis (Ngatia, 2014). The author uses the dependent variables ROA and the inflation rate for regression analysis. The results indicate an inverse relationship between CSR implementation and the financial performance of insurance enterprises. The author recommends that insurance firms diversify their investment portfolios to mitigate inflation risks and simultaneously increase investment in CSR activities, as this is an essential activity.

According to Otavová et al. (2023) examines the quantity and quality of non-financial information reports published by insurance enterprises with business addresses in the Czech Republic according to the legal regulations of the Czech Republic. The authors looked at the years 2016 and 2020 (Otavová et al., 2023). The authors have developed five groups of indicators in non-financial reports and classified insurance firms into three groups for analysis.

*H: Higher social responsibility has a positive impact on the profitability of insurance firms*

### 3. RESEARCH METHODS AND MODELS

The goal of the article is to clarify the impact of corporate social responsibility (CSR) dimensions on the profitability of insurance firms in Vietnam. Using SPSS 20 and AMOS 20 software (Arbuckle, 2011) to test the PLS-SEM linear structural model (Anderson & Gerbing, 1988; Browne & Cudeck, 1992; Hair, Black, Babin, Anderson, & Tatham, 2006). Thereby looking for evidence.

The research equation has the form:  $POIB = f(RCCM, RPCE, RTEM, RSCO)$ . The research model is as shown in Figure 1.

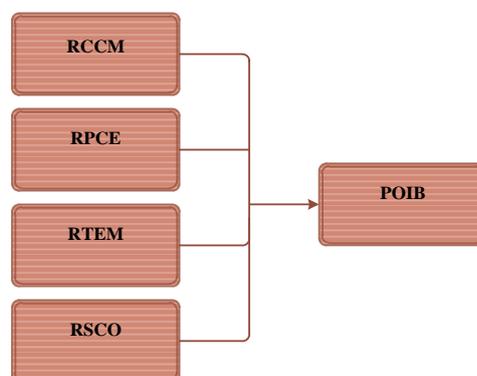


Figure 1. Research model.

The basis for constructing observations included in each scale is measured by the author using the 5-level Likert scale (Likert, 1932). The answers are conventionally assigned from 1 to 5 according to the levels of dissatisfaction, neutrality, satisfaction, and very satisfaction.

First, based on theoretical foundations, the research team conducted in-depth interviews via mobile phone and face-to-face with five experts. Insights from these interviews were used to finalize the survey questions. The survey was administered from May 2024 to November 2024, yielding 712 valid online responses from various stakeholders, including sales staff, sales managers, insurance experts, and consumers. The collected data were entered into an Excel spreadsheet and analyzed according to socio-demographic characteristics. In terms of gender, 392 respondents were male (accounting for 55.06%) and 320 were female (accounting for 44.94%). Regarding age distribution, 15 respondents (accounting for 2.11%) were aged 20–30, 435 (accounting for 61.10%) were aged 31–40, 241 (accounting for 33.85%) were aged 41–50, and 21 (accounting for 2.95%) were above 50 years old. In terms of educational attainment, 15 participants (accounting for 2.11%) held high school diplomas, 33 (accounting for 4.63%) had intermediate qualifications, 515 (accounting for 72.33%) held college or university degrees, and 159 (accounting for 20.93%) held postgraduate degrees. Regarding job roles, 421 respondents (accounting for 59.13%) were insurance employees, 48 (accounting for 6.74%) were in management positions, 25 (accounting for 3.51%) were insurance experts, and 218 (accounting for 30.62%) were insurance consumers. Detailed breakdowns are presented in Table 2.

Table 2. Statistics describing sociodemographic characteristics of survey subjects.

No.	Sociological characteristics of the subjects on which the research conducted the survey	Number (People)	Rate (%)
Sex			
1	Male	392	55.06
2	Female	320	44.94
Age			
1	From 20 to 30 years old	15	2.11
1	From 31 to 40 years old	435	61.10
2	From 41 to 50 years old	241	33.85
3	Over 50 years old	21	2.95
Education level			
1	Graduated from high school	15	2.11
1	Graduated from intermediate school	33	4.63
2	Graduated from college or university	515	72.33
3	After university	149	20.93
Job title and position			
1	Insurance employee	421	59.13
1	Insurance business management	48	6.74
2	Insurance specialist	25	3.51
3	Insurance consumers	218	30.62
<b>Total:</b>		<b>712</b>	<b>100</b>

Source: Compiled from investigation results.

Table 2 shows that the survey data collected has a male-biased structure in the industry, accounting for 55.06%. Workers are mainly between the ages of 31 and 40 years old, with university degrees, and most of the survey received information from employees currently working at insurance companies.

The scales, observations, and variables constructed by the authors of the article are as follows (Table 3).

**Table 3.** Variable symbols, survey questions, source citations.

No.	Symbol	Question	Source
I.	Responsibility to consumers and commodity markets – RCCM scale		
1.	RCCM1	Quality CSR reporting	Olowokudejo et al. (2011); Hsu (2012); Czerwiński (2013); Trynchuk et al. (2019); Pelozo (2006); Tierney and Farmer (2011); Wang et al. (2018) and Yadav et al. (2016),...
2.	RCCM2	Insurance contracts are clear and transparent, protecting insurance consumers	
3.	RCCM3	Comply with commitments on procedures, compensation and settlement processes	
4.	RCCM4	Comply with the announced vision, mission, and core values	
II.	Responsibility for protecting the common environment – RPCE		
5.	RPCE1	Average cost-to-revenue ratio for activities implementing the enterprise's environmental protection responsibility	Ramakrishnan et al. (2016) and Manokaran et al. (2018)
6.	RPCE2	Environmental management system	
7.	RPCE3	Implement emissions and toxic waste programs	
8.	RPCE4	Support agencies. Local organizations carry out propaganda activities. Educate and raise awareness of environmental protection for officials the enterprise's employees	
III.	Responsibility towards the employees– RTEM		
9.	RTEM1	Pay salaries, allowances and bonuses according to general market regulations	Pelozo (2006); Das (2013) and Ullah et al. (2019)
10.	RTEM2	Fully participate in mandatory social insurance policies for employees	
11.	RTEM3	Gender equality policy (Female workers, disabled workers)	
12.	RTEM4	Human resource development (Promotion policy, safety, training)	
IV.	Responsibility to the social community – RSCO		
13.	RSCO1	Initiative for the community	Scholtens (2011); Ehioghiren and Eneh (2019); Ngatia (2014) and Otavová et al. (2023)
14.	RSCO2	Program to support flood victims	
15.	RSCO3	Charity program to support the poor	
16.	RSCO4	Program to support disabled and lonely people	
17.	RSCO5	Gratitude and gratitude program	
18.	RSCO6	Educational support program	
V.	Profitability of insurance businesses - POIB		
19.	POIB1	Net profit value on total assets of the insurance company	Interview with experts
20.	POIB2	The value of net profit on equity of insurance companies	
21.	POIB3	Net profit value on total revenue of insurance company	
22.	POIB4	Earnings per share of an insurance company	

The initial theoretical model comprises five scales and twenty-two observed variables.

#### 4. TEST THE REGRESSION MODEL AND DISCUSS THE RESULTS

Using the overall alpha coefficient  $>0.7$  and corrected item-total correlation  $>0.3$  as evaluation criteria, the final scales met the testing requirements. The final scales meet the requirements after implementing observation

types RSCO4 and RSCO5. Details in Table 4.

**Table 4.** Quality control results of the scales.

<b>Item-total statistics</b>					
<b>Variable</b>	<b>The average value of the collected data sample</b>	<b>If item deleted</b>	<b>Total variable correlation value from statistical results</b>	<b>Squared multiple correlation value</b>	<b>Cronbach's alpha coefficient value collected from the test results</b>
RCCM1	8.3123	5.089	0.774	0.770	0.807
RCCM2	8.2145	4.985	0.794	0.780	0.798
RCCM3	8.5047	6.118	0.647	0.489	0.858
RCCM4	8.6120	5.991	0.670	0.513	0.849
The Cronbach's alpha coefficient test result has a value of 0.867, greater than 0.7, the total correlation value is greater than 0.3. The scale meets the quality standards for further work.					
RPCE1	11.09	2.812	0.476	0.254	0.628
RPCE2	11.36	2.478	0.467	0.249	0.637
RPCE3	11.29	2.398	0.499	0.304	0.614
RPCE4	10.95	3.004	0.490	0.291	0.629
The result of the Cronbach's alpha coefficient test has a value of 0.710, greater than 0.7, the total correlation value is greater than 0.3. The scale meets the quality standards for further work.					
RTEM1	10.63	3.829	0.640	0.510	0.761
RTEM2	10.24	4.023	0.787	0.672	0.685
RTEM3	10.12	4.625	0.677	0.526	0.746
RTEM4	10.20	4.793	0.456	0.420	0.840
The result of Cronbach's alpha coefficient test has a value of 0.818, greater than 0.7, the total correlation value is greater than 0.3. The scale meets the quality standards for further work.					
RSCO6	6.85	4.711	0.524	0.333	0.881
RSCO1	8.43	1.448	0.628	0.545	0.671
RSCO2	8.33	1.641	0.635	0.631	0.782
RSCO3	7.96	1.840	0.594	0.712	0.184
The Cronbach's alpha coefficient test result has a value of 0.719, greater than 0.7, the total correlation value is greater than 0.3. The scale meets the quality standards for further work.					
POIB1	8.35	6.349	0.642	0.415	0.771
POIB2	8.48	6.269	0.707	0.536	0.738
POIB3	8.60	7.260	0.561	0.339	0.805
POIB4	8.32	6.972	0.655	0.494	0.765
The result of Cronbach's alpha coefficient test has a value of 0.823, greater than 0.7, the total correlation value is greater than 0.3. The scale meets the quality standards for further work.					

With a sample size of 712, which is larger than 350, the study should choose the Absolute value below, choosing 0.3. Testing the  $KMO = 0.678$  within  $0.5 < KMO < 1$ ; The Bartlett's Test of Sphericity is 0.000; Factor Loading coefficients  $> 0.3$ ; Test the extracted variance, Cumulative coefficient  $\% = 66.488\% > 50\%$ . Thus, the EFA results meet the requirements (Table 5).

**Table 5.** Exploratory factor analysis test results.

<b>Pattern matrix<sup>a</sup></b>					
<b>Variable</b>	<b>Component</b>				
	<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>
RCCM2	0.912				
RCCM1	0.906				
RCCM4	0.784				
RCCM3	0.765				
RSCO3		0.922			
RSCO2		0.866			
RSCO1		0.846			
RSCO6		-0.693			

Pattern matrix <sup>a</sup>					
Variable	Component				
	Column 1	Column 2	Column 3	Column 4	Column 5
RTEM2			0.918		
RTEM3			0.815		
RTEM1			0.786		
RTEM4			0.634		
POIB4				0.873	
POIB2				0.852	
POIB1				0.764	
POIB3				0.639	
RPCE2					0.764
RPCE1					0.748
RPCE3					0.696
RPCE4					0.676

Note: Extraction method: Principal component analysis.  
 Rotation method: Promax with Kaiser normalization.  
 a. Rotation converged in 6 iterations.

The model must meet five testing criteria, including Cmin/df, TLI, CFI, NFI, and RMSEA. The results are shown in Figure 2.

Amos text chi-square=2.19; TLI=0.906; CFI=0.906; CFI=0.901; NFI=0.922; RMSEA=0.024

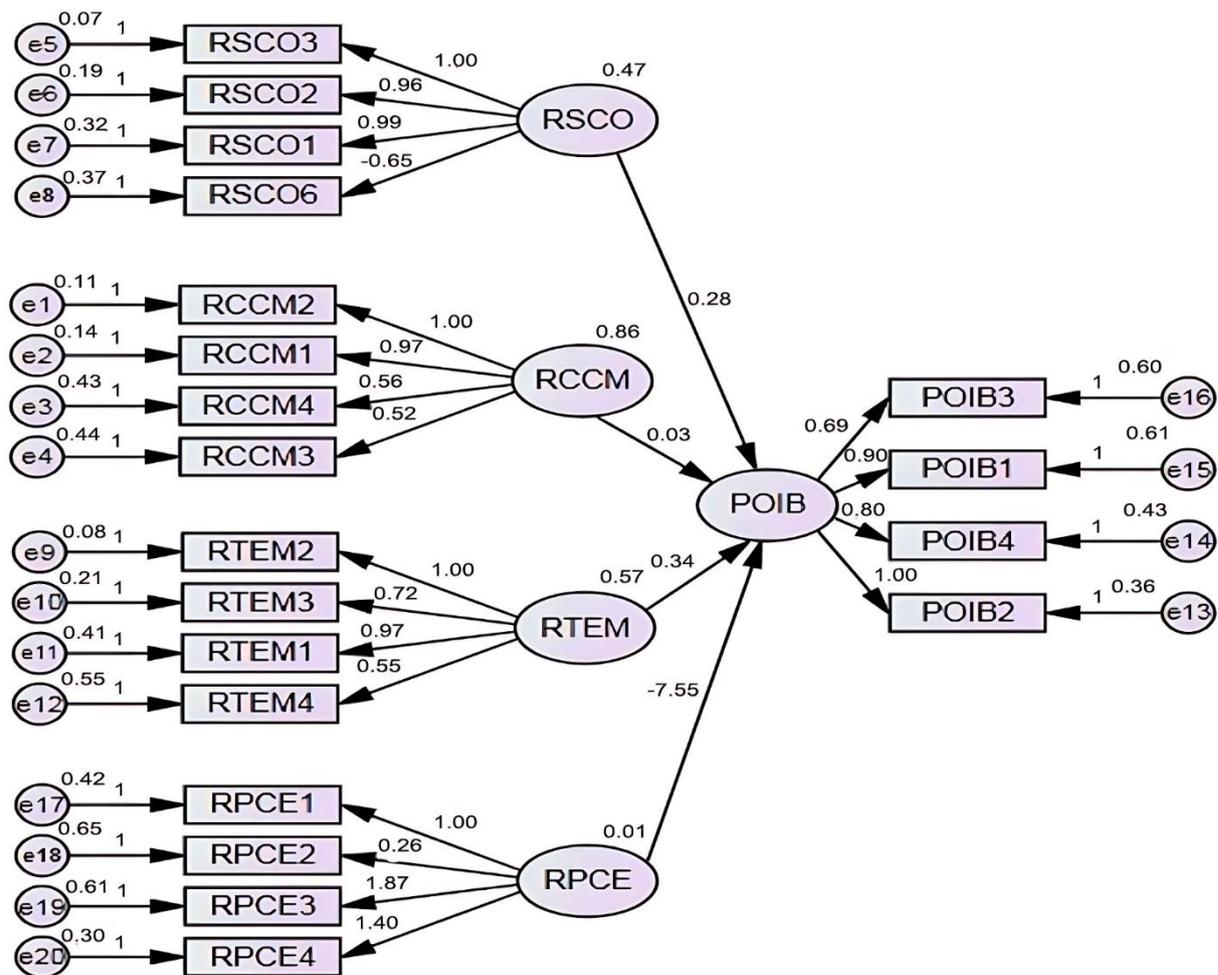


Figure 2. Structural model testing results.

Table 6 shows that the integrated model is consistent with actual data because it meets the testing criteria, specifically as follows:

**Table 6.** Synthesize indicators and compare with standard.

No.	Metrics and testing	Statistical values collected	Evaluate
1	Chi-square index adjusted for degrees of freedom target	2.19	Passed inspection
2	Tucker-Levis index target	0.906	Passed inspection
3	Comparative fit index target	0.901	Passed inspection
4	Normal fit index target	0.922	Passed inspection
5	RMSEA index target	2.19	Passed inspection

Table 7 shows that the H1 hypotheses are accepted with the significance level of the estimated coefficients: p-value  $\leq 0.05$ ; Confidence level  $\geq 95\%$ , factors included in the model are statistically significant and the hypotheses are accepted. Reject hypotheses H2, H3, H4 because p-value  $> 0.05$ .

**Table 7.** Hypothesis testing results.

Hypotheses of the study	Influence of factors			Coefficients of the linear structural model	Reliability level	Label
H1	POIB	<---	RCCM	0.234	***	Accept
H2	POIB	<---	RPCE	0.023	0.597	Rejected
H3	POIB	<---	RTEM	0.273	0.688	Rejected
H4	POIB	<---	RSCO	-23.253	0.56	Rejected

Note: Reliability level (P-value) is \*\*\* which means P-value is less than 0.001 ( $< 0.05$ ).

Empirical results of the linear structural model show that CSR investment has a strong impact on the profitability of insurance firms in Vietnam. The higher the responsibility factor for insurance consumers, the more positive the effect on the profitability of insurance firms, with a high level of significance (p-value less than 0.05). The study is consistent with the research perspective (Czerwiński, 2013; Hsu, 2012; Olowokudejo et al., 2011; Pelozo, 2006; Tierney & Farmer, 2011; Trynchuk et al., 2019; Wang et al., 2018; Yadav et al., 2016). Besides, the empirical results also show that there is no evidence of a significant relationship between the factors of corporate responsibility and employees, the element of responsibility to the social community, and responsibility for environmental protection factors together with the profitability of insurance firms. This is consistent with reality in Vietnam, where businesses implementing responsibility to employees, responsibility to the environment, and participation in programs and initiatives of the social community result in increased expenses, thereby significantly reducing business profits.

## 5. POLICY IMPLICATIONS FOR MANAGERS OF INSURANCE BUSINESSES

Based on the results of empirical research, investment in CSR has a strong impact on the profitability of insurance firms through the element of responsibility to consumers. The article proposes the following specific solutions:

Firstly, the Corporate Social Responsibility Report (CSR) is a type of report that shows the activities and results of businesses in contributing to the sustainable development of society. Corporate social responsibility reporting is not only a legal obligation but also an opportunity for businesses to enhance their reputation, affirm their values, and create benefits for stakeholders. Therefore, insurance firms need to seriously invest in CSR activities and report quality as committed.

Second, protect consumer rights in transactions by using model contracts and evaluating implementation practices; additionally, solutions should be proposed to enhance business responsibility in protecting consumer rights in this field.

In Vietnam today, there is still a group of consultants who give incorrect and ambiguous advice, causing customers to be confused about insurance products, which damages reputation and diminishes trust in the insurance

sector. Therefore, checking and monitoring the quality of agency operations is an issue that insurance firms are concerned about addressing. Implementing a code of ethical conduct in business is necessary and urgent for these companies.

Businesses need to review their human resources recruitment process, with the goal of providing human resources suitable for the positions and jobs being recruited. Save costs on training human resources after officially accepting them to work. Limit the situation of employees changing jobs or having to continuously recruit new personnel.

Third, the unclear and ambiguous factors of insurance contracts and sample contracts in consulting are issues with which the majority of consumers participating in the survey are dissatisfied. Therefore, insurance firms need to review and strictly comply with the law and demonstrate consumer-oriented CSR in a more specific manner.

Fourth, the insurance compensation settlement process also needs to be considered and reviewed by businesses in the direction of protecting insurance consumers.

Conclusion: The article demonstrates that CSR investment significantly influences the profitability of insurance firms. The research findings align with numerous previous studies worldwide; however, some differences remain. Based on these results, the authors propose several solutions: 1) Commitment to the quality of CSR reporting for society; 2) Protect consumer rights through model transaction contracts; 3) Improve employee quality and implement a code of business ethics; 4) The insurance compensation settlement process should also be reviewed and improved by businesses. A limitation of the study is that it does not clearly distinguish between the sizes of different insurance firms or specify whether they are life or non-life insurance providers.

**Funding:** This study received no specific financial support.

**Institutional Review Board Statement:** Not Applicable

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Data Availability Statement:** Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** Tran Van Hai (T.V.H.): Conceptualization, Methodology, Validation, Resources, Supervision, Project Administration. Tran Thi Lan Anh (T.T.L.A.): Formal Analysis, Supervision, Project Administration. Nguyen Van Quang (N.V.Q.): Formal Analysis, Writing – Review & Editing. Hoang Manh Cu (H.M.C.): Writing – Review & Editing. All authors have read and agreed to the published version of the manuscript. All authors have read and agreed to the published version of the manuscript.

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