

Variable Assertive Elements of Low-Rise Residential Real Estate in Southern Thailand

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Abstract

The purpose of this research was to conduct a confirmatory factor analysis of variables such as transformational leadership, organizational culture, corporate social responsibility, customer relationship management, competitive advantage, innovativeness, and sustainable performance in the low-rise residential real estate business in Southern Thailand. The data were collected using a questionnaire from a sample group of 332 individuals, using a purposive sampling method, comprising entrepreneurs or executives who have obtained land allocation licenses in the Southern Andaman Coast and the Gulf of Thailand. Structural equation analysis was conducted and focus group discussions with 11 real estate entrepreneurs were used to supplement the findings from the quantitative research. The results of the study showed that the chi-square value (χ^2) was 278.12, with a P-Value of 0.124. Additionally, the (χ^2/df) value was 1.10 (278.12/252), which is less than 2. Furthermore, the GFI value was 0.940, AGFI was 0.910, and CFI was 1.00, all of which are higher than 0.900. The SRMR index value was 0.030, and RMSEA was 0.020, both of which are less than 0.08.

Keywords: *Confirmatory Factor Analysis, Variable Assertive Elements, Low-Rise Residential Real Estate, Southern Thailand.*

Introduction

The real estate business is crucial to the economic system of a country and promotes an improvement in the quality of life for the population. Therefore, entrepreneurs in the real estate sector must emphasize the development of residential projects that meet the needs of customers and society to ensure sustainable growth and survival. Currently, real estate business operators have become more aware and prioritize the sustainable development of their businesses. It can be observed that many organizations have formulated business strategies to manage their real estate ventures sustainably, aiming for competitiveness, business success, and long-term growth (Chayoemchai, 2018).

During the years 2020–2021, Thailand experienced the economic impact of the COVID-19 pandemic, leading to an economic crisis that affected various sectors, including the real estate business. This industry faced significant challenges, particularly in terms of workforce issues, as working from home was not feasible compared to other industries. Additionally, consumer purchasing power slowed down due to reduced income, and the general population expressed concerns and uncertainty about future earnings. Moreover,

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household debts increased to around 90% of GDP, causing banks to become more cautious when extending credit. These factors collectively contributed to a rapid decline in real estate business sales. As the COVID-19 situation gradually improved, real estate entrepreneurs began to revitalize their operations, focusing on economic aspects to ensure survival. However, there was a risk of overlooking sustainable considerations as business owners concentrated mainly on economic recovery. The success of real estate businesses was observed primarily in economic terms, lacking sustainability in social and environmental aspects. Therefore, for real estate entrepreneurs, achieving sustainability is essential and requires equal attention to all three components: economic, social, and environmental considerations (Gaskin, Thorpe, McGinty, Bower, Rhode, & Young, 2014). Khunprasert, 2020).

However, in this research, the researcher conducted a literature review to analyze factors expected to impact the sustainable operation of the real estate business. The findings from the literature review revealed several factors influencing the sustainability of the real estate business, including (1) transformational leadership, (2) competitive advantage, (3) organizational culture, (4) customer relationship management, and (5) innovativeness. Additionally, based on past studies, it was found that corporate social responsibility as a factor in creating sustainability is a less explored aspect but considered significant. The researcher considered corporate social responsibility as a crucial factor in this study, as it signifies the business's commitment to both direct and indirect impacts on society. For instance, businesses need to consider environmental aspects, such as the reduction of natural resource consumption and addressing pollution issues like dust, noise, and waste, which can affect the health of the surrounding population. The findings of this research will be beneficial for both existing and new real estate business operators, providing insights and guidance on strategies for achieving sustainable success in the future.

Research Objectives

To analyze the confirmatory components of the variables of the low-rise residential real estate business in the southern region of Thailand, which has related factors, including competitive advantage, organizational culture, transformational leadership, corporate social responsibility, customer relationship management, innovativeness, and sustainable performance.

Research Framework

Research on the confirmatory composition of variables of the low-rise residential real estate business in the southern region of Thailand. It is quantitative research consists of, studies, concepts, theories, and reviews of related literature within the country and abroad among the factors affecting the sustainability of the low-rise residential real estate business in the southern region of Thailand including seven variables as follows: 1) Transformational leadership, 2) Competitive advantage, 3) Corporate social responsibility, 4) Organizational culture, 5) Customer relationship management, 6) Innovativeness, and 7) Sustainable performance for research to proceed systematically and efficiently.

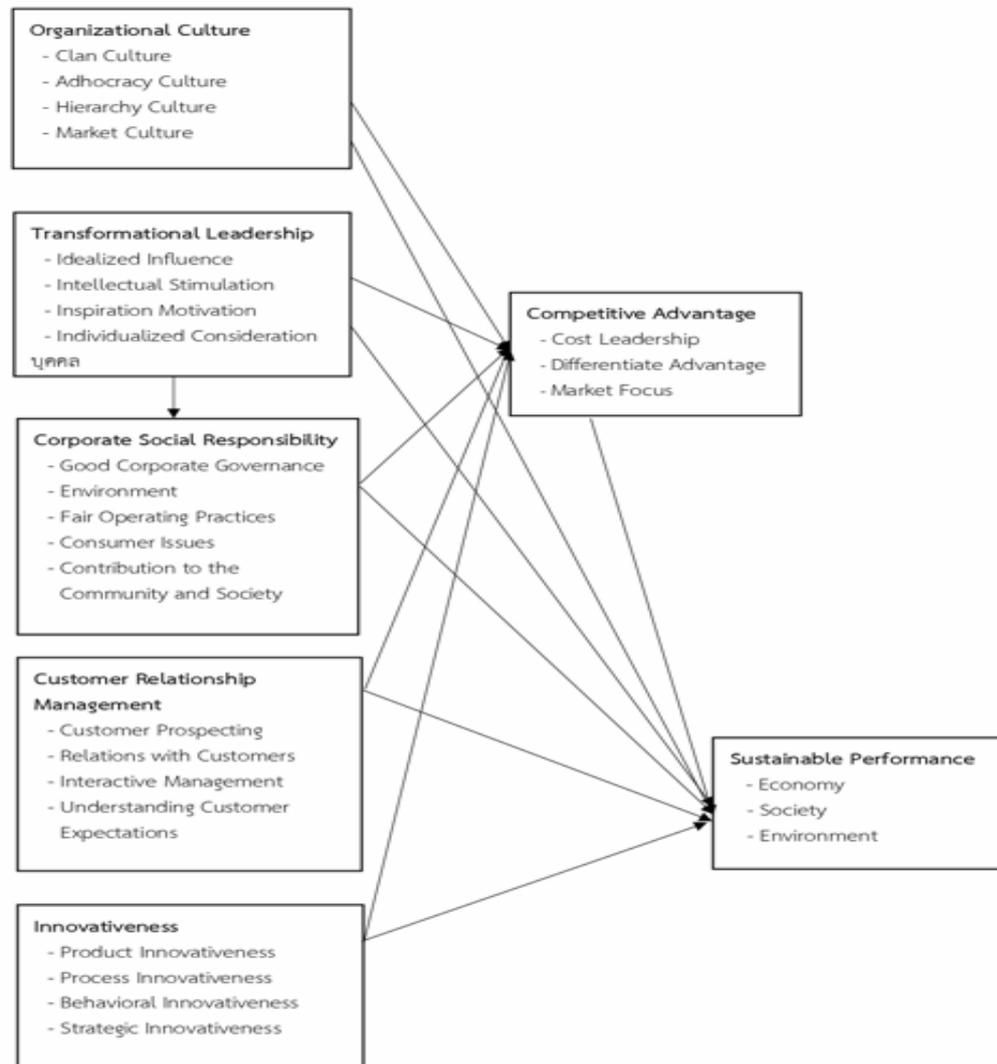


Figure 1. Research Framework.

Tools used for research and tool quality inspection

Research Tools

The research instrument was a questionnaire developed by the researcher from a review of relevant documents, theories, and research which is a five-level type of measurement, and from five is the level of opinion the most until 1 is the level of opinion the least, consists of seven components:

- 1) Sustainable performance, consist of 3 sub-indicators with 9 questions.
- 2) Competitive advantage, consists of 3 sub-indicators with 9 questions.
- 3) Organizational Culture, consists of 4 sub-indicators and 12 questions.
- 4) Transformational leadership Consists of 4 sub-indicators and 12 questions.
- 5) Social responsibility, consists of 5 sub-indicators and 15 questions.
- 6) Customer relationship management, consists of 4 sub-indicators with 13 questions, and
- 7) Innovativeness, consists of 4 sub-indicators and 12 questions.

To check the quality of this research questionnaire, measuring content validity uses a method of checking by five experts, using criteria to accept that the questions are consistent

with the content and objectives and are appropriate for research. By setting the IOC (Index of Item Objective Congruence) value, to be greater than 0.5 or more (Tirakanon, 2008) checking the reliability of the questionnaire (Reliability) to find the quality of tools measuring the variables used in the research, the Cronbach's Alpha Coefficient formula was used, the reliability of the entire questionnaire was 0.952.

Research Methods

This research is Quantitative Research using confirmatory factor analysis techniques (Confirmatory Factor Analysis) to check the consistency of the measurement model, to confirm the variables of the real estate business in the category of Low-Rise Residential Real Estate in the Southern region of Thailand.

Research Population and Sample

The population used in the research is project executives/entrepreneurs or companies that have received land allocation licenses from the Land Department in Phuket Province, Songkhla Province, and Nakhon Si Thammarat Province. In this study, there is information on 630 projects or companies that have received land allocation licenses, as shown in Table 1.

Table 1. Population used in the research.

Area/Province Group	Population (Company)
Songkhla	288
Phuket	145
Nakhon Si Thammarat	197
Total area	630

The sample size is by the sample size criteria for confirmatory factor analysis according to Kline's concept (Kline, 2011: 204), which states that confirmatory factor analysis should have a sample size of 200 samples or more, can be used for analysis random sampling, the researcher used Purposive Sampling to select 332 entrepreneurs or executives who received land allocation licenses in the Southern region of Thailand. For each company, the researcher selected one respondent as detailed in Table 2.

Table 2. Sample group

Province	Population (Company)	Sample Groups
Songkhla	288	152
Phuket	145	76
Nakhon Si Thammarat	197	104
Total area	630	332

Data Collection

In collecting the data, the researcher contacted and coordinated with companies in each province based on the information available in the Department of Lands' system. To verify the information with the respondents, the researcher personally introduced and explained the purpose, nature, and scope of the research to the sample group. Once the participants understood and were willing to provide research information, the data was collected. The researcher used questionnaires to ensure the completeness of the data and subsequently analyzed it.

Data Analysis

In examining the relationship between the variables, the results of Pearson's Product Moment Correlation analysis found that there is a relationship between observed variables within the same latent variable (Cohen, 1977).. The correlation coefficient is positive, indicating a relationship in the same direction ranging from 0.304 to 0.696. The highest correlation coefficient, 0.696, was found between the latent variables of transformational leadership. Among the observed variables, intellectual stimulation and motivation were positively correlated (Baggio & Klobas, 2011). Additionally, the research results indicated that the correlation coefficient for all variables is not more than 0.70, suggesting that each variable is independent (Baggio & Klobas, 2011). In the analysis of skewness and kurtosis values, the skewness value of the variable ranged from -0.21 to -0.75, and the kurtosis value ranged from -0.76 to 0.89. The research results demonstrated that these values met the acceptable criteria. Skewness values greater than 3.00 and kurtosis values greater than 7.00 can introduce bias in the Maximum Likelihood estimate (West, Finch, & Curran, 1995). In this study, the skewness values were less than 3.00 and the kurtosis values were less than 7.00 for every variable, indicating that the data was suitable for confirmatory factor analysis. To analyze the data, confirmatory factor analysis was conducted using the Lisrel program. The maximum likelihood method (ML) was utilized to estimate the model parameters. The Model Modification Indices, in conjunction with theoretical feasibility, were considered to determine the criteria for adjusting the model. This data analysis through confirmatory factor analysis focused on variables related to the low-rise residential real estate business in the southern region of Thailand. The Lisrel program was used, applying the maximum likelihood method (Maximum Likelihood: ML), to confirm the model. The adjustments to the model were determined based on the Model Modification Indices, while considering the theoretical feasibility. In studying the performance of the model from the group of indexes of the fit of the model to the data, considering the chi-square statistics, GFI (Goodness of Fit Index), AGFI (Adjusted Goodness of Fit Index), indexes which indicate the discrepancy of the model are: Root Mean Squared Residual (RMR) index, and errors in the estimation of the model (Root Mean Squared of Error Approximation: RMSEA).

Results

Confirmatory Factor Analysis Results

Results from the analysis of the Pearson correlation coefficient between the variables in the study and sustainable performance. It was found that there was a significant relationship at the .05 level. with all having a positive relationship. The relationship size is between 0.304 - 0.696. This shows that the observed variables have a low to moderate level of relationship. and when considering the correlation coefficient between observed variables in the same component It was found that, Component 1: is organizational culture consists of four indicators as:

clan culture (CL), adhocracy culture (AD), hierarchical culture (HI), and market culture (MC). The coefficients between the observed variables are significantly related at the .05 level. And they are all positive relationships. The correlation size is between 0.600-0.670, indicating that the observed variables have a moderate relationship. Component 2: Transformational Leadership Consists of 4 indicators as: idealized influence (TR), intellectual stimulation (IN), inspiration motivation (IM), and individualized consideration (ID) were significantly related to the coefficients between the observed variables level.05, and they are all positive relationships. The correlation size is between 0.506-0.696, indicating that the observed variables are moderately related. Component 3: Customer relationship management, it consists of four indicators which are: customer prospecting (CM), relations with customers (RW), interactive management (IT), and understanding customer expectations (UN). The coefficients between the observed variables are related.

They are significantly different at the .05 level, and they are all positive relationships. The correlation size is between 0.424-0.694, indicating that, the observed variables have a low-moderate relationship. Component 4: Innovativeness consists of four indicators which are: product innovativeness (PR), process innovativeness (PO), behavioral innovativeness (BE), strategic innovativeness (ST), where the coefficients between the observed variables are significantly related, significantly at the .05 level, and they are all positive relationships. The correlation size is between 0.388-0.684, indicating that, the observed variables have a low-moderate relationship. Component 5: Corporate Social responsibility, it consists of five indicators as: good corporate governance (OG), environment (EV), fair operating practices (FA), consumer issues (CN), and contribution to the community and society (CS). The coefficients between the observed variables are significantly related at the .05 level. And they are all positive relationships. with a correlation size between 0.326-0.688. It shows that the observed variables have a low-moderate relationship. Component 6: Competitive Advantage It consists of 3 indicators: cost leadership (CO), differentiation advantage (DI), and the advantage of focusing on specific market focus (MA). The coefficients between the observed variables are significantly related at the .05 level. And they are all positive relationships. The relationship size is between 0.304-0.692, indicating that the observed variables have a low-moderate relationship. Component 7: Sustainable performance consists of 3 indicators: social (SO), environmental (EN), and economy (EC). The coefficients between the observed variables are significantly related at that level. .05 and they are all positive relationships.

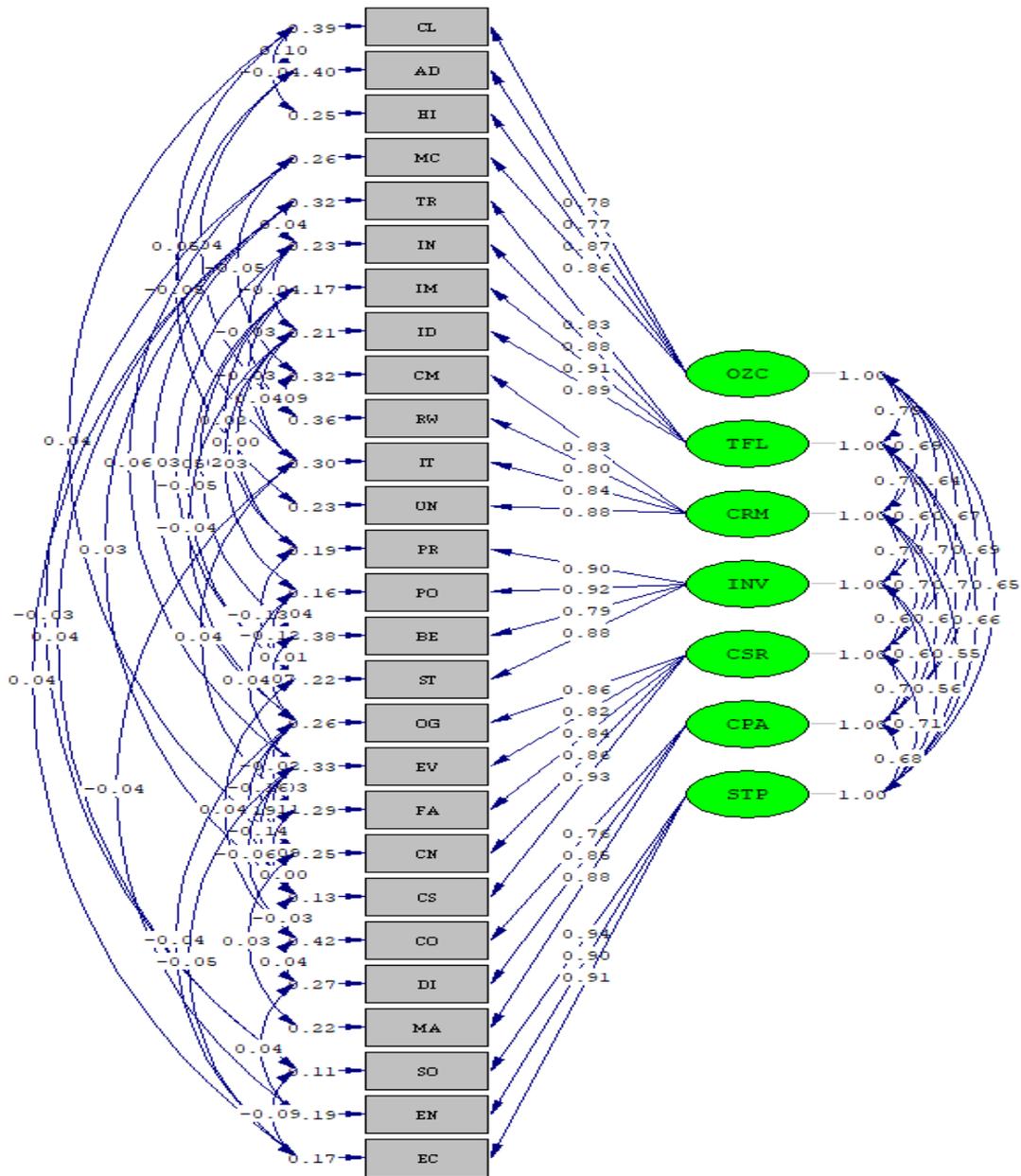
The correlation size is between 0.348-0.670, indicating that the observed variables have a low-moderate relationship. Factor Loading: b) of the component indicators that Component 1: Organizational culture the value is between 0.77-0.87. Component 2: Transformational Leadership has a value between 0.83-0.91. Component 3: Customer relationship management has a value between 0.80-0.88. Component 4, Innovativeness, has a value between 0.79-0.92. Component 5: Corporate social responsibility has a value between 0.82-0.93. Component 6: Competitive advantage has a value between 0.76-0.88 and Component 7: Sustainable performance has a value between 0.90-0.94 with statistical significance at the 0.05 level for all indicators.

In terms of considering the quality of the model It was found that the Convergent Validity from the extracted variance had an average value of the variables (Average Variance Extracted: AVE) with a value ranging from 0.674, which shows that the measurement model has good convergent validity. The results from the analysis still found that the Construct Reliability (CR) value was greater than 0.872, indicating high reliability. However, the confirmatory elements of the sustainable performance of the low-rise residential real estate business in the Southern region of Thailand After adjusting the model by adjusting the hypothesis model according to the harmony index, it was found that the model is consistent with the empirical data. This can be considered from the chi-square value (X^2) of 278.12, P-Value of 0.124. In addition, it is still found that the relative chi-square value (X^2/df) is at 1.10 (278.12/252), which has a value less than 2. In addition, the GFI value is equal to 0.940, AGFI is equal to 0.910, CFI is equal to 1.00, which is greater than 0.900. For the SRMR index value is equal to 0.030, RMSEA is equal to 0.020, which is less than 0.08. When analyzing the harmonization index of the variables with the empirical data of the confirmatory component model of the variables of the low-rise residential real estate business in the southern region of Thailand, it was found that, all index values pass the specified criteria, thus demonstrating that the specified confirmatory component model is in harmony with the empirical data and can be accepted. As for the details of the correlation coefficient between the variables observed in the model for measuring sustainable performance of the low-rise residential real estate business in the southern region of Thailand. Shown in Table 3 and the results of confirmatory factor analysis. This is shown in Figure 2. In addition, the results of the analysis of AVE and CR values are shown in Table 3.

Table 3. Pearson correlation coefficients between study variables and sustainable performance. (n = 332)

rs	CL	AD	HI	MC	TR	IN	IM	ID	CM	RW	IT	UN	PR	PO	BE	ST	OG	EV	FA	CN	CS	CO	DI	MA	SO	EN	EC
CL	1	.600**	.630**	.670**	.506**	.573**	.569**	.520**	.431**	.350**	.463**	.430**	.388**	.396**	.391**	.433**	.370**	.326**	.396**	.517**	.503**	.463**	.484**	.490**	.472**	.477**	.480**
AD		1	.653**	.670**	.520**	.562**	.563**	.539**	.440**	.424**	.440**	.425**	.421**	.398**	.407**	.411**	.389**	.359**	.395**	.469**	.502**	.406**	.463**	.470**	.470**	.464**	.453**
HI			1	.643**	.591**	.612**	.619**	.578**	.515**	.441**	.489**	.569**	.538**	.517**	.498**	.506**	.499**	.441**	.507**	.582**	.573**	.474**	.492**	.530**	.536**	.517**	.554**
MC				1	.596**	.604**	.627**	.570**	.451**	.434**	.495**	.544**	.476**	.468**	.479**	.514**	.462**	.478**	.490**	.550**	.562**	.471**	.501**	.514**	.460**	.471**	.479**
TR					1	.677**	.652**	.628**	.486**	.431**	.466**	.539**	.464**	.456**	.421**	.433**	.434**	.441**	.476**	.568**	.638**	.511**	.548**	.577**	.564**	.516**	.580**
IN						1	.696**	.639**	.510**	.437**	.480**	.567**	.469**	.476**	.455**	.418**	.481**	.489**	.520**	.583**	.630**	.488**	.527**	.558**	.542**	.526**	.554**
IM							1	.628**	.539**	.498**	.480**	.568**	.504**	.478**	.477**	.415**	.482**	.447**	.506**	.589**	.646**	.474**	.520**	.573**	.521**	.532**	.553**
ID								1	.489**	.453**	.520**	.548**	.481**	.504**	.460**	.465**	.433**	.423**	.490**	.590**	.627**	.533**	.569**	.564**	.558**	.537**	.568**
CM									1	.649**	.600**	.614**	.592**	.591**	.521**	.565**	.577**	.510**	.542**	.450**	.469**	.370**	.391**	.446**	.471**	.456**	.454**
RW										1	.674**	.694**	.584**	.590**	.500**	.526**	.564**	.496**	.553**	.449**	.480**	.304**	.356**	.410**	.409**	.394**	.416**
IT											1	.632**	.609**	.521**	.600**	.529**	.478**	.569**	.452**	.491**	.376**	.435**	.433**	.398**	.348**	.395**	
UN												1	.630**	.628**	.577**	.625**	.579**	.533**	.614**	.515**	.533**	.410**	.464**	.498**	.452**	.428**	.443**
PR													1	.628**	.609**	.663**	.571**	.508**	.579**	.496**	.509**	.439**	.487**	.532**	.479**	.482**	.473**
PO														1	.682**	.684**	.559**	.547**	.590**	.502**	.550**	.442**	.488**	.526**	.485**	.447**	.462**
BE															1	.604**	.560**	.430**	.511**	.432**	.457**	.423**	.433**	.479**	.408**	.388**	.433**
ST																1	.522**	.494**	.553**	.493**	.484**	.510**	.508**	.532**	.459**	.441**	.458**
OG																	1	.623**	.621**	.565**	.599**	.402**	.460**	.498**	.501**	.482**	.479**
EV																		1	.621**	.572**	.596**	.352**	.461**	.469**	.489**	.474**	.444**
FA																			1	.605**	.688**	.461**	.525**	.521**	.521**	.531**	.560**
CN																				1	.617**	.547**	.576**	.639**	.622**	.623**	.620**
CS																					1	.520**	.587**	.650**	.648**	.622**	.657**
CO																						1	.692**	.674**	.489**	.476**	.485**
DI																							1	.638**	.567**	.579**	.574**
MA																								1	.550**	.525**	.545**
SO																									1	.659**	.670**
EN																										1	.618**
EC																											1

*p < .05 **p < .01, p < .001



Chi-Square=278.12, df=252, P-value=0.12408, RMSEA=0.018

Figure 2. Confirmatory Factor Analysis Results.

Table 4. Analyzes the AVE and CR Values of the Components.

Variable	Items	AVE	CR
OZC	CL	0.67	0.89
	AD		
	HI		
	MC		
TFL	TR	0.77	0.93
	IN		
	IM		
	ID		

Variable	Items	AVE	CR
CRM	CM	0.70	0.90
	RW		
	IT		
	UN		
INV	PR	0.76	0.93
	PO		
	BE		
	ST		
CSR	OG	0.74	0.93
	EV		
	FA		
	CN		
CPA	CO	0.69	0.872
	DI		
	MA		
STP	SO	0.84	0.94
	EN		
	EC		

Table 5: Conformity verification index and harmoniously index values of the variable confirmatory component model of the low-rise residential real estate business in the southern region of Thailand.

Goodness of Fit Index Criteria (n = 332)	Model before adjusting	Meaning	Model after adjusting	Meaning
Degrees of Freedom (Df) > 0.00	303		252	
P-value > 0.05	0.00		0.12	
Relative Chi-Square value (X^2/df) < 2.00	2.48	Inconsistently	1.10	Consistently
Goodness of Fit Index (GFI) > 0.90	0.86		0.94	
Comparative of Fit Index (CFI) > 0.90	0.99		1.00	
Square Root of the Mean Square Residual (SRMR) Index. < 0.05	0.04		0.03	
Parameter Estimation Error Index (RMSEA) < 0.05	0.07		0.02	

Discussion and Conclusion

The results of the confirmatory factor analysis found that, the ratio of the chi-square value to the degrees of freedom (χ^2/df) was at the level of 2.48, which the index value shows that the model is consistent with the empirical data according to the criteria of Diamantopoulos and Siguaw (2000) said that, the χ^2/df value is between 2.00-5.00. This means that the model is consistent with the empirical data. In addition, the results of the analysis found that, the RMSEA value was at 0.07, the NNFI value was at 0.99, the NFI value was at 0.98, the CFI value was at 0.99, and the SRMR value was at 0.04. The demonstrated index values indicate that the developed model is consistent with the data. Empirical results are not as good as they should be. Therefore, the researcher adjusted the confirmatory factor analysis and got the χ^2/df value of 1.10 (278.12/252), the RMSEA value of 0.02, the NNFI value of 1.00, the NFI value at 0.99, the CFI value at 1.00, and the SRMR at 0.03. From the results of the factor analysis, confirmation can indicate that the model is consistent with empirical data. In addition, it was found that every component has a component weight greater than 0.30, indicating that the observed variables can be used to measure latent variables (Hair et al., 2010). For the test of convergent validity, there is a total confidence value (CR) of the instrument for measuring each variable, which has a limit of 0.70 (Fornell & Larcker, 1981). However, if the calculated value is higher than 0.70, it means that it is highly accurate. Values between 0.60 - 0.70 are considered to be within acceptable criteria (Hair et al., 2010). In this study, it was found that the results were between 0.87 - 0.94. The variance of the variables extracted by the component (Average Variance Extracted: AVE). The threshold is usually 0.50, and can be accepted if the AVE is less than 0.50, in cases where CR is greater than 0.60 (Fornell & Larcker, 1981). In this study, it was found that the results had an AVE value between 0.67 - 0.84.

However, in the analysis of the component weights in this research, the researcher made a significant discovery that adds to the discussion. It was found that the components related to corporate social responsibility had the highest weights, ranging from 0.82 to 0.93. Specifically, the variable measuring societal sharing had the highest weight, at 0.93. This indicates that real estate entrepreneurs in the horizontal development sector believe that sustainable business arises when they create jobs, generate income, and contribute to local economies by employing local labor. This aligns with the study by Zhao, Kusi, Chen, Hu, Ahmed, and Sukamani (2021), which found that corporate social responsibility has a significant impact on the sustainable performance of construction contracting businesses (coefficient = 0.113, statistically significant at the 0.05 level). Currently, real estate businesses have become more aware of and emphasize corporate social responsibility. For instance, Sansiri (2018) places importance on corporate social responsibility by implementing fair labor practices, clear human resource policies in compliance with labor laws, considering employee benefits, providing systematic employee training and development, fair performance evaluations, and creating a safe working environment. The company also emphasizes local hiring to promote a balanced work-life balance for employees, considering economic, social, and environmental factors.

References

- Baggio, R. and Klobas, J.E. (2011), *Quantitative Methods in Tourism: A Handbook*, Channel View Publications, Buffalo, New York, NY. (West, Finch, & Curran, 1995).
- Chayoemchai, A. (2018). A study of the predictive relationship between social entrepreneurial characteristics of organizations and the economic sustainability of business organizations in Thailand. *Panyapiwat Journal*, 10(Special Issue), 13-25.
- Cohen J. (1977). *Statistical power for the behavioral sciences*. 2nd ed. New York: Academic Press.
- Diamantopoulos, A., & Siguaw, A.D. (2000). *Introducing LISREL: A guide for the uninitiated*. Sage Publications, London.

- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(1), 39. doi:10.2307/3151312
- Gaskin, D.J., Thorpe, R. J., McGinty, E. E., Bower K., Rhode, C., Young, J. H. (2014). Disparities in diabetes: The nexus of race, poverty, and place. *American Journal of Public Health*, 104(11), 2148-2155.
- Hair Jr., J.F., Black, W.C., Babin, B.J., & Anderson, R.F. (2010). *Multivariate Data Analysis: A Global Perspective*, (7th ed.). New Jersey: Pearson Prentice Hall Multivariate Data Analysis: A Global Perspective.
- Khunprasert, W. (2020). Impact of COVID-19 Wave 3 Plunges Real Estate Business into Crisis, Preparing for a Prolonged Market Downturn for 2-3 Years. Retrieved on February 1, 2024, from: <https://prop2morrow.com/>
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (D. A. Kenny & T. D. Little Eds. Third ed.). New York, London: THE GUILFORD PRESS: A Division of Guilford Publications, Inc.
- Sansiri. (2018). Sustainability Report of Sansiri, 2018. Retrieved on December 8, 2023, from: [https://www.thaibma.or.th/Download/prospectus/SIRI236A/\(14\)3_3_10\(14\)3_3_10_ความรับผิดชอบต่อสังคม.pdf](https://www.thaibma.or.th/Download/prospectus/SIRI236A/(14)3_3_10(14)3_3_10_ความรับผิดชอบต่อสังคม.pdf) (thaibma.or.th).
- Schumacker, R. E., & Lomax, R. G., (2010). *A beginner's guide to structural equation modeling*. (3rd Edition). New Jersey: Lawrence Erlbaum Associates.
- Tirakanon, S. (2008). *Social science research methods: guidelines for practice*. 7th printing. Bangkok: Chulalongkorn University Printing House.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Sage Publications, Inc.
- Zhao, F., Kusi, M., Chen, Y., Hu, W., Ahmed, F., & Sukamani, D. (2021). Influencing mechanism of green human resource management and corporate social responsibility on organizational sustainable performance. *Sustainability*, 13(16), 8875.