### ORIGINAL



# Intention to use eva in financial analysis of securities companies

# Intención de utilizar eva en el análisis financiero de sociedades de valores

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**Citar como**: Thi Mo N, Le Huyen H, Van Hue H, Thi Hang D. Intention to use eva in financial analysis of securities companies. Data and Metadata. 2024; 3:419. https://doi.org/10.56294/dm2024419

Recibido: 07-01-2024

Revisado: 02-04-2024

Aceptado: 07-08-2024

Publicado: 08-08-2024

Editor: Adrián Alejandro Vitón Castillo 回

## ABSTRACT

Economic value added abbreviated as (EVA) is a quantitative technique is a quantitative technique measuring the value generated by a team of experts at Stern Stewart & Co. EVA provides managers with optimal financial decision-making tools, yet the adoption of EVA among companies in Vietnam remains limited. This paper aims to examine the factors influencing the intention to use EVA in financial analysis among securities companies. A survey was conducted on 30 securities companies, totaling 85 observations, targeting managerial positions, through selective sampling from January 2024 to March 2024. The article uses the SEM structural model on SPSS and AMOS 20 software to clarify factors affecting the intention to use EVA in financial analysis of securities companies in Vietnam. The results indicate that corporate strategy positively influences the adoption of EVA in financial analysis activities of securities companies. Recommendations include encouraging securities companies to incorporate EVA in their strategic planning and enhancing the financial expertise of CEOs and CPOs.

Keywords: EVA; Securities Companies; Investment Decisions.

## RESUMEN

El valor económico agregado abreviado como (EVA) es una técnica cuantitativa que mide el valor generado por un equipo de expertos de Stern Stewart & Co. EVA proporciona a los gerentes herramientas óptimas para la toma de decisiones financieras, pero la adopción de EVA entre las empresas en Vietnam sigue siendo limitada. Este artículo tiene como objetivo examinar los factores que influyen en la intención de utilizar EVA en el análisis financiero entre las compañías de valores. Se realizó una encuesta en 30 compañías de valores, con un total de 85 observaciones, dirigidas a puestos directivos, mediante muestreo selectivo desde enero de 2024 hasta marzo de 2024. El artículo utiliza el modelo estructural SEM en el software SPSS y AMOS 20 para aclarar los factores que afectan la intención de utilizar EVA en Análisis financiero de compañías de valores en Vietnam. Los resultados indican que la estrategia corporativa influye positivamente en la adopción del EVA en las actividades de análisis financiero de las sociedades de valores. Las recomendaciones incluyen alentar a las compañías de valores a incorporar EVA en su planificación estratégica y mejorar la experiencia financiera de los directores ejecutivos y CPO.

Palabras clave: EVA; Sociedades de Valores; Decisiones de Inversión.

#### INTRODUCTION

Economic value added abbreviated as (EVA) is a quantitative technique that measures value creation developed by the team of  $experts^{(1,2,3,4,5,6,7,8)}$  In terms of content, the method guides how to calculate the

© 2024; Los autores. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia Creative Commons (https:// creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada economic value created by businesses over a period of time, variables that provide managers in making management decisions such as optimal investment choices and encouraging them to take action.<sup>(22)</sup> Companies that adopt EVA after a long period of inefficiencies result in stable, long-term improvement in performance metrics. With investment activity variables, the use of EVA in financial analysis gives corporate managers motivation in investment activities, and can boldly use higher debt capital, especially EVA has a positive effect on cash flow and profitability of companies.<sup>(5)</sup>

EVA is utilized to evaluate managerial performance, and many large companies worldwide have implemented this tool with specific outcomes. While traditional measures such as profitability ratio on sales (ROS), return on assets ratio (ROA), return on equity ratio (ROE) determine financial performance. based on traditional ratios, EVA integrates net profit after tax with capital costs. This is relatively suitable for securities companies, as the capital used for their operations is often sourced from short-term debt, with relatively high capital usage costs.

In the modern, globally integrated economy, securities companies act as intermediaries in the stock market, contributing to its development. These companies are susceptible to various risk factors, and thus, they must ensure strong financial capabilities tied to sustainable growth and development. The financial condition of securities companies can partly reflect the health of the stock market, indicating resilience during crises or adverse market conditions. These aspects are clearly demonstrated in the financial reports of companies over the years. Therefore, financial analysis to determine the underlying profitability of securities companies is crucial.

Financial analysis in securities companies is the process of applying scientific methods to evaluate the financial status of securities firms. It helps managers gain insights into the current financial situation, identify limitations in financial health, and subsequently develop plans, forecasts, and investment decisions, as well as capital mobilization strategies aligned with business needs. The results of financial analysis are utilized by various stakeholders, including clients, investors, business partners, economic experts, and even governmental agencies and employees within the company. Different stakeholders utilize financial information for different purposes, leading to diverse decision-making objectives. Therefore, financial analysis tailored to each stakeholder group aims to meet their specific goals.

Economic Value Added (EVA) is a quantitative technique that has garnered attention and development from researchers worldwide. The majority of EVA-related studies focus on stocks, enterprise value, and generally agree that EVA is an effective metric for assessing business performance and managerial responsibility. Improving this metric could potentially represent most traditional financial indicators, offering more accurate economic insights for shareholders and investors. This metric is not only utilized in designing salary policies and incentives but also influences investment, business, and management decisions, shaping the perceptions and behaviors of managers and investors. However, there still exist differing views on both theoretical and practical aspects when applying EVA, particularly concerning calculation techniques and its applicability across various economic and financial sectors. To date, there remains ample room for further research into the comprehensive utilization of EVA across different economic and financial domains.

In recent years, showing that strategic corporate factors have influenced the use of EVA in financial analysis, studies include.<sup>(23,6,12)</sup> Meanwhile, the authors<sup>(25,17)</sup> argue that CEO characteristics and knowledge have an influence on EVA. Some studies suggest that objective factors require the company to use EVA. <sup>(24,13,1,4,16)</sup> However, the views or research results on the type of securities company are limited, there is no clear viewpoint, and there is no consensus.

#### Literature Review and Theoretical Framework

#### Foundational Theories

Theory of Planned Behavior (Ajzen, 1991): This theory posits three determining factors: personal attitude towards performing a behavior, perceived social pressure to engage in the behavior (termed subjective norm), and perceived behavioral control or self-efficacy. Essentially, different behavioral intentions can be predicted with high accuracy from attitudes towards behavior, subjective norms, and perceived behavioral control. These factors have been shown to be related to a set of prominent behaviors, norms, and control regarding behavior. Expected value formulas are believed to only partially address these relationships. Past behavior serves as evidence to test the authenticity of behavior according to Ajzen (1991).

Disclosure theory<sup>(28)</sup> explains the behaviors associated with the disclosure of financial information due to the impact of the interest expense factor. Information disclosures related to investor attitudes, stock trading volumes, transparent information, investor behavior in the absence of information. Information that is unfavorable to the business is often concealed, such as information about leverage, profitability, and audit size<sup>(28)</sup>

#### Empirical studies

According to Finegan (1989), it is an excellent measurement technique, which is the basis for companies to

select investment projects, design policies, and make appropriate financial decisions.<sup>(19)</sup>

The basis for calculating EVA is: EVA = NOPAT - (TC x WACC)

In which, NOPAT is Profit before interest and after tax, this is an index calculated based on profit after tax plus interest multiplied by one minus the corporate income tax rate. Meanwhile, TC is Investment Capital determined by average total assets. And finally WACC is the weighted average interest rate of capital according to the weight of capital sources.

In recent years, there have been numerous studies worldwide revolving around EVA. For instance, clarifying the concept and intricacies of EVA and its application principles, viewing EVA as a financial management system, strategy, EVA's advantages and disadvantages, or considering EVA as an ideal tool for budget optimization, strategic planning, as evidenced by studies conducted by<sup>(3,11)</sup> clarify the calculation techniques of EVA, determine the discount rate with the aim of bringing wage flows in different directions to the present time. In the case of equity, this discount rate is determined by the rate of return of the least risky investment opportunity. If borrowed funds are used, the discount rate is calculated as the interest rate on the loan. Studies that clarify this content are.<sup>(21,11)</sup> Studies of EVA application for management purposes vary at each point in the company's business cycle, such as.<sup>(20,9)</sup> To clarify the relationship between EVA and market value fluctuations. Empirical studies are investigated, surveyed and verified to determine how EVA has an impact on MVAs, especially for unlisted companies.<sup>(18,7)</sup> The relationship between EVA and stock returns, explains the important impact of EVA having an effect on stock prices in a linear frame such as.<sup>(15,10)</sup> The relationship between VBM and EVA value-based management, used to value operating costs and provide important information for the formulation and promulgation of business policies such as<sup>(27)</sup> The influence of EVA relates to managerial behavior such as reward policy development, etc motivate them to raise and use capital effectively.<sup>(2)</sup>

#### Some notable studies on the impact of EVA adoption intention include

According to Lovata & Costigan (2002), companies facing higher representative agency costs tend to utilize EVA, encouraging shareholder value enhancement. Company strategy influences EVA adoption, with companies pursuing differentiation strategies and cost leaders being more inclined to use EVA.<sup>(14)</sup> Through a study sample of 115 companies identified as EVA adopters and a control group comprising 1 271 non-adopting companies, results indicate that EVA-utilizing companies typically have higher organizational ownership ratios and lower insider ownership ratios compared to non-adopting companies. Adjustments in EVA-centric data provide more suitable management solutions.

According to Bluszcz & Kijewska (2016), the essence of EVA technique is the level or amount of investment capital, weighted average cost of investment capital, return on capital as well as capital structure, cost of capital, profit, turnover capital. The above factors depend on the company's long-term financial strategy, guiding growth in scale or depth.<sup>(23)</sup> Based on this, the authors examine the causes and explain the operating results of companies.

According to Pavelková et al. (2018), can EVA be used to distinguish between different cycles of business activities such as the pre-crisis, during-crisis, and post-crisis periods of businesses? Based on group sensitivity data analysis techniques, there is evidence of different results for different companies. It can be said that EVA is the driving force with the most significant influence, while human resource costs have a negative influence during the research period (during, after and before the crisis. Analysis of efficiency scores shows that Businesses with crisis cycles are similar and close to the best businesses in other periods. EVA and pyramid analysis play an important role in revealing and creating dynamics value.<sup>(12)</sup>

Subedi & Farazmand (2020) argue that using EVA as a performance evaluation metric encourages companies to enhance overall efficiency. Companies make cautious investment and operational decisions after applying EVA as their performance metric, thereby improving overall company performance. Based on a dataset of 2274 Chinese companies during the period from 2009-2010, different results regarding service provision are obtained.<sup>(6)</sup>

#### H1: Company strategy has a counterproductive effect on EVA adoption

According to Athanassakos (2007), the EVA method is widely used in Canada, the characteristics of companies used are large company size, young executives, highly educated and especially very knowledgeable in the financial and accounting system. The consideration of the relationship of several variables including stock price performance, the probability of using EVA and not using EVA through quantitative analysis of the Logitgis regression model and also qualitative analysis.<sup>(25)</sup> The results showed that companies that used EVA had higher stock performance than companies that did not use EVA. In addition, companies with higher stock market performance are more likely to use EVA.

According to lazzolino, Laise & Migliano (2014), to clarify the relationship between intellectual value-added coefficient and EVA. A database of 2 596 companies operating in Northern Italy, from 6 different economic regions, was observed in 2011.<sup>(17)</sup> The results showed that EVA and the taxable value-added coefficient had no

significant relationship. This is essential for companies that use improved EVA or adopt a balanced scorecard to evaluate a multi-criteria approach.

H2: Characteristics of the management level (CEO or CPO) have a positive impact on the use of EVA.

H3: The financial knowledge of the management level (CEO or CPO) has a positive impact on the use of EVA. According to Berzakova, Bartosova & Kicova (2015), today's managers not only aim to increase value for shareholders but also need to enhance value for stakeholders. This shifts the focus of many companies' managers from the primary economic goal of profit maximization (ROA, ROI, PAT, EPS, etc.). However, these goals do not meet shareholders' requirements. EVA demonstrates superiority as a suitable means to determine the company's value creation reliability. Calculating EVA is straightforward and provides ample information for managers. To date, many improved versions of EVA have been introduced, showing application benefits such as MVA, CVA, SVA, and RONA.<sup>(24)</sup>

According to Owusu-Antwi et al. (2015), in Ghana, the government identified the banking system as the backbone lever for overall economic development. However, the reality shows that bad debts caused significant losses in the banking system in the 1980s, leading to decreased value due to increased informal deposits in banks. The government began comprehensive reform of the national financial framework in 1988 to improve the financial capacity of the country's commercial banks. These policies have had an impact on improving the operating efficiency, solvency, profitability, and operational productivity of commercial banks. By 1990, the banking system's efficiency remained low, with a significant gap compared to private banks, evidenced by credit risks, loans, and limited capitalization. The authors investigated factors determining bank profits from 1988-2011 using EVA techniques. Results indicated that EVA served as the best measurement tool compared to standard accounting, revealing that ROA, CPI inflation did not significantly affect Ghanaian bank operations.

According to Zhang & Aboud (2019), factors such as credit risk, operational efficiency, innovation level have a positive relationship with banks' EVA, while capital management has a negative impact on EVA. Another finding is that the board size and independent directors are not related to bank EVA. Still, from the perspective of traditional operational efficiency evaluation indices, CEO compensation positively affects bank profitability.

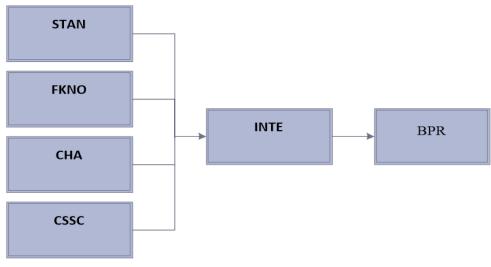
According to Xu, Albitar & Li (2020), based on the study of data from 913 publicly listed enterprises in the Chinese stock market from 2007-2016 to examine the relationship between corporate finance and EVA. The results show evidence that the profit ratio of the financial channel has a counterproductive effect on EVA. The impact scope is moderate, and there are differences between industries, intensity, and scale.<sup>(4)</sup>

According to Indriakati (2023), the goal is to use EVA to review the performance of listed companies in indonesia. Data was collected from 2017 to 2019. The results show the suitability of EVA for use in evaluating and matching the current state of companies' ongoing operations.<sup>(16)</sup>

H4: Subjective standards have a positive impact on EVA adoption.

H5: Using EVA in financial analysis will have a positive impact on improving business results.

### **METHOD**



Source. Developed by the author based on theoretical foundations Figure 1. Research Model

The article uses the SEM structural model on SPSS and AMOS 20 software to clarify factors affecting the intention to use EVA in financial analysis of securities companies in Vietnam. Data were collected online from

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30 securities companies, with 85 observations involving management positions such as CEOs, CFOs, through selective sampling from January 2024 to March 2024. The tests were conducted using SPSS and AMOS 20 software.<sup>(26)</sup>

The model takes the form (Figure 1): INTE = f(STAN, FKNO, CHA, CSSC); BPR = f(INTE).

Table 1. Statistics of Survey Participants' Characteristics								
No.	Survey Participant	Number (individuals)	(%)					
1	Regarding Age	Aged 31-35	42	49,41				
		Aged 36-40	43	50,59				
		Over 40	8	9,41				
2	Regarding Education	Bachelor's degree	75	88,24				
		Postgraduate degree	10	11,76				
3	Regarding Experience	6-10 years	11	12,94				
		11-15 years	69	81,18				
Over 16 years 5 5,8								
Source: Data compiled by the author from real survey guestionnaires								

	Table	2. Description of scales, observations	
No.	Code	Survey Question Content	Source
Ι.	Corporate strategy of securiti	es company - CSSC	
	CSSC1	Cost leadership strategy	(23,12,6)
	CSSC2	Product/service differentiation strategy	
	CSSC 3	Focus strategy	
П.	Characteristics of CEO and CF	PO - CHA	
	CHA1	Learning and self-awareness	(25,17)
	CHA2	Performance orientation	
	CHA3	Integration	
ш.	Financial knowledge of CEOs	and CPOs - FKNO	
	FKNO1	CEO's qualifications	(25,17)
	FKNO2	Financial and accounting knowledge	
	FKNO3	Risk management knowledge	
IV.	Subjective standards - STAN		
	STAN1	Board of directors and shareholders want the company to use EVA	(24,13,1,4,16)
	STAN2	Partners want the company to use EVA	
		STAN3	
V.	Intention to use EVA in finan- cial analysis - INTE		Interview with experts
	INTE1	I have a plan to use EVA for the company	
	INTE2	I want to use EVA right now	
		INTE3	
VI.	Business performance results	- BPR	
	BPR2	Market share growth rate	
	BPR3	Profit growth rate	
Sourc	ce: developed by the author ba	sed on theoretical foundations.	

The variables in the SEM-PLS quantitative model are measured using a 5-level Likert scale (Likert, 1932), the scale is built by 5 levels, with number 1 describing completely disagree, number 2 disagree, number 3 is a neutral rating, number 4 agree, number 5 is completely agree.

Profile of the survey participants: The collected data was input into an Excel spreadsheet, resulting in 85 observations. Classified by age, there are 42 individuals aged 31-35 (49,41 %), 43 individuals aged 36-40 (50,91 %), and 8 employees over 40 years old (9,41 %). Regarding education and professional qualifications, 75 individuals have a university degree (88,24 %), while 10 individuals have a postgraduate degree (11,76 %). In terms of work experience, tenure, there are 11 individuals with 6-10 years of experience (12,94 %), 69 individuals with 11-15 years of experience (81,18 %), and 5 individuals with over 16 years of experience (5,88 %).

Table 1 illustrates the characteristics of CEOs and CPOs of securities companies as young, highly educated individuals, with the majority holding university degrees, reflecting the practical reality.

The Vietnamese stock market is currently experiencing strong growth both in scale and depth, with a positive shift in market structure and an increasing variety of commodities. As a promising economic sector playing an increasingly important role in the economy, the securities industry faces a severe shortage of human resources, especially high-quality personnel. The demand for human resources still does not meet market needs. Therefore, there is a youthful workforce structure. However, young workers also have advantages such as keeping up with market requirements and being willing to accept global financial and accounting knowledge.

Based on theory, the paper constructs the following scale.

The model consists of 6 scales and 18 observed variables.

#### RESULTS

Table 3. Results of analyzing the quality of the scales								
Item-Total Statistics								
Variables	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted			
BPR1	7,12	2,707	0,660	0,452	0,756			
BPR2	7,25	3,015	0,724	0,525	0,677			
BPR3	6,89	3,542	0,621	0,401	0,785			
Factor 1, Cro	onbach's Alpha =	0,811						
INTE1	6,82	2,182	0,863	0,769	0,806			
INTE2	6,82	2,456	0,734	0,548	0,918			
INTE3	6,72	2,424	0,821	0,729	0,846			
Factor 2, Cro	onbach's Alpha =	0,901						
STAN1	7,17	1,880	0,724	0,568	0,796			
STAN2	6,79	2,680	0,650	0,450	0,847			
STAN3	6,95	2,197	0,804	0,647	0,700			
Factor 3, Cro	onbach's Alpha =	0,845						
FKNO1	5,08	2,006	0,727	0,565	0,724			
FKNO2	4,76	2,286	0,742	0,573	0,712			
FKNO3	4,97	2,499	0,603	0,365	0,841			
Factor 4, Cro	onbach's Alpha =	0,829						
CHA1	7,67	3,122	0,628	0,504	0,738			
CHA2	7,50	3,346	0,541	0,344	0,830			
CHA3	7,49	2,934	0,770	0.606	0,589			
Factor 5, Cronbach's Alpha = 0,798								
CSSC1	7,69	2,257	0.671	0,467	0,619			
CSSC2	7,60	2,634	0,611	0,409	0,697			
CSSC3	7,89	2,137	0,560	0,319	0,763			
Factor 6, Cronbach's Alpha = 0,771								
Source: statistics conducted using SPSS 20 software								

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The article tests the Cronbach alpha index. The result of analyzing the reliability of the scale is that the quality is good or better if the value of that scale has an alpha coefficient >0,6 or higher (less than 1) and a corrected item-total correlation coefficient. total correlation)>0,3, details table 3 below.

Table 3 indicates that the quality of the scales is good. For the Business Performance scale, the Cronbach's Alpha value is 0,811, and the Corrected Item-Total Correlation is greater than 0,621. For the Intention to Use EVA in Financial Analysis scale, the Cronbach's Alpha value is 0,901, and the Corrected Item-Total Correlation is greater than 0,734. For the Subjective Norm scale, the Cronbach's Alpha value is 0,845, and the Corrected Item-Total Correlation is greater than 0,650. For the Financial Knowledge of CEOs and CPOs scale, the Cronbach's Alpha value is 0,829, and the Corrected Item-Total Correlation is greater than 0,603. For the Characteristics of CEOs and CPOs scale, the Cronbach's Alpha value is 0,798, and the Corrected Item-Total Correlation is greater than 0,541. For the Company Strategy of Securities Companies scale, the Cronbach's Alpha value is 0,771, and the Corrected Item-Total Correlation is greater than 0,560.

Exploratory factor analysis. Due to the sample size of 85 being less than 100, the Absolute value below selection is 0,3. Table 4 shows that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0,704, which falls within the range of 0.5 < KMO < 1. The Bartlett's Test of Sphericity is 0,000, indicating that the data used for factor analysis is appropriate.

Table 4. Test the KMO index						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy0,704						
Bartlett's Test of Sphericity	2 884,312					
	df	153				
	Sig.	0,000				
Source: statistics conducted by the author using SPSS 20 software						

Table 5. Variance extracted of the PLS-SEM model								
Total Variance Explained								
Component	Initial Eigenvalues			Extractio	n Sums of Sq	Rotation Sums of Squared Loadings <sup>a</sup>		
component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	
1	3,959	21,995	21,995	3,959	21,995	21,995	3,151	
2	2,882	16,013	38,008	2,882	16,013	38,008	2,909	
3	2,132	11,845	49,853	2,132	11,845	49,853	2,451	
4	1,877	10,428	60,280	1,877	10,428	60,280	2,501	
5	1,654	9,189	69,469	1,654	9,189	69,469	2,378	
6	1,279	7,107	76,576	1,279	7,107	76,576	2,210	
7	0,650	3,612	80,188					
8	0,541	3,008	83,196					
9	0,504	2,800	85,996					
10	0,451	2,507	88,503					
11	0,396	2,198	90,701					
12	0,349	1,938	92,639					
13	0,340	1,887	94,526					
14	0,248	1,380	95,907					
15	0,243	1,350	97,257					
16	0,195	1,086	98,343					
17	0,188	1,044	99,387					
18	0,110	0,613	100,000					
Source: statistics by the author using SPSS 20 software								

According to the results in table 5, the variance extracted test yields a cumulative percentage of 76,6576 %, which is greater than 50 %. The eigenvalues of the factor group are greater than 1, indicating 6 factors.

The factor loading value of the observed variables is greater than 0,3; After checking the loading factors of the variables, the variables with loading factors greater than 0,3 are the 18 observed variables. EFA analysis results met the requirements.

Table 6. Component rotation matrix of the observed variables								
		Pat	tern Matrix	( <sup>a</sup>				
Variables	Component							
variables	1	2	3	4	5	6		
INTE1	0,942							
INTE2	0,882							
INTE3	0,829							
STAN3		0,909						
STAN2		0,860						
STAN1		0,811						
FKNO1			0,888					
FKNO2			0,882					
FKNO3			0,805					
BPR1				0,887				
BPR2				0,870				
BPR3				0,789				
CHA3					0,919			
CHA1					0,827			
CHA2					0,778			
CSSC1						0,882		
CSSC2						0,835		
CSSC3						0,774		
Source: Statistics by the author using SPSS 20 software								

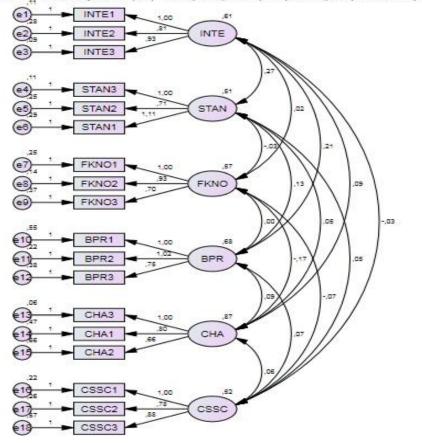
Confirmatory Factor Analysis and Partial Least Squares Structural Equation Modeling Analysis. The results of the confirmatory factor analysis and the estimated linear structural model are depicted in the figure below

The results of CFA confirmatory factor analysis show that the value (Cmin/df) is 4,35, which is within the value of 5 or less, the TLI value is 0,929, which is greater than 0,9, the CFI value is 0,988, which is greater than 0,9. NFI 0.991 is greater than 0,9, RMSEA value is 0,042 less than 0,05. In conclusion, the integrated model is suitable for real data because it meets the testing criteria.

Figure 3 shows that the Chi-square value adjusted for degrees of freedom (Cmin/df) is 4,77, which is within a value of 5 or less, the TLI value is 0,928, which is greater than 0,9, and the CFI value is 0,925, which is greater than 0,9, NFI 0.911 is greater than 0,9, RMSEA value is 0,036 less than 0,05. In conclusion, the integrated model is suitable for real data because it meets the testing criteria.

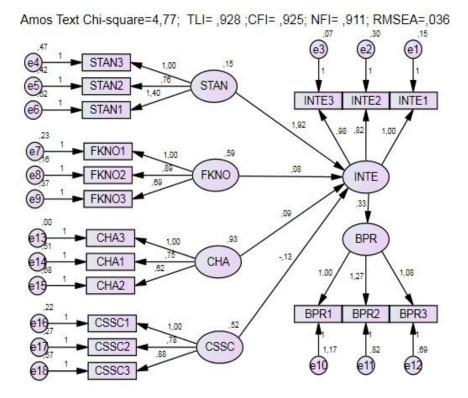
Table 7 with the significance level of the estimation coefficients: p-value <= 0,05; confidence level >= 95 %, the factors included in the model are statistically significant, and the hypotheses are accepted.

Table 7 indicates that the variables (FKNO) Financial knowledge of CEOs, CPOs have a positive impact on the use of EVA, with statistical significance at P-value <= 0,05. The variable (CSSC) company strategy has a reverse impact on the use of EVA, with statistical significance at P-value <= 0,05. And the variable (INTE) using EVA in financial analysis will positively affect improving business results, with statistical significance at P-value <= 0,05. The remaining hypotheses have P-value > 0,05 and are rejected.



Amos Text Chi-square=4,35; TLI= ,929 ;CFI= ,988; NFI= ,991; RMSEA=,042

Figure 2. Summary of Confirmatory Factor Analysis (CFA)



Source: Statistics conducted using AMOS 20 software Figure 3. Results of Regression Model Estimation

	Table 7. Results of Hypothesis Testing of the SEM-PLS Model							
Hypothesis		Impact		Estimate	S.E.	C.R.	Р	Label
H1	INTE	<	CSSC	-0,129	0,05	-2,576	0,01	Accept
H2	INTE	<	CHA	0,088	0,034	2,585	0,16	Rejected
H3	INTE	<	FKNO	1,081	0,045	1,787	0,044	Accept
H4	INTE	<	STAN	0,92	0,208	2,236	0,37	Rejected
H5	BPR	<	INTE	0,333	0,084	3,985	0,02	Accept
Source: Statistics from AMOS 20 software								

#### Hypotheses H1, H3, H5 are all supported. Hypotheses H2, H4 are rejected.

The results are consistent with studies of  $^{(23,12,6)}$  that a company's business strategy will strongly determine the use of the EVA analysis technique. Besides, CEO knowledge has an influence on EVA consensus with studies.  $^{(24,13,1,4,16)}$ 

#### **Policy Implications for Securities Company Managers**

Firstly, securities companies need to recognize that EVA is essential for the future to replace traditional metrics. It is a reliable measure of company efficiency, recognized and supported by the community, and used as an internal control solution. The main advantage of EVA lies in its consideration of economic profit to understand the value created and distributed by the company in a specific period. EVA stands out from other metrics because it creates value on a specific basis. It helps securities companies resolve conflicts of interest between shareholders and managers. Managers often make decisions to increase their own benefits, while shareholders seek to increase assets. Using EVA to measure business efficiency can limit managers' ability to manipulate data and guide them to maximize the wealth of company shareholders. EVA's successful measure indicates the actual value created for shareholders, enabling investors to assess the true value of the company in a specific period. Pursuing value maximization for shareholders makes researching the application of EVA in evaluating performance essential and meaningful.

Based on the results of the SEM regression model, the author proposes solutions to help securities company managers enhance their intention to apply EVA in financial analysis as follows:

Firstly, review the company's strategy to align with the short and long-term requirements of the securities market. EVA calculation techniques should be used to select strategies that meet the requirements, simplify calculations, and eliminate important subjective factors in selecting reasonable data. Additionally, securities companies need to research the application of EVA for the industry in line with business strategies. Expanding the scope of EVA through considering longer-term data requires calculating various factors related to long-term strategies and business plans.

Secondly, enhance the financial knowledge of CEOs and CPOs. Securities companies aim to develop rapidly in terms of quantity and quality, requiring CEOs not only to understand business but also to manage financial operations effectively. The financial efficiency of the enterprise affects asset pricing for shareholders. Maximizing asset value for shareholders is an important goal of financial management, so shareholders always expect an increase in stock value to achieve optimal investment efficiency. Initially, CEOs must recognize the role and apply EVA to the company, adjusting accounting data when applying EVA. EVA depends on three main factors: Profit, Capital investment, and the interest rate used on capital. Adjusting one of these factors or all of them simultaneously yields different EVA results. Not all indicators always satisfy the needs of the target, and there are limitations to each indicator that require adjustments to be suitable. The adjustment goal is to reduce the difference between accounting and economic perspectives, providing more appropriate measurement results from an economic perspective (considering the cost of capital). Additionally, narrowing the gap between cumulative basis-recorded data and cash basis-reflected data by adjusting the calculated results on a cash basis.

Furthermore, CEOs and CPOs should participate in short-term courses, professional seminars on EVA to enhance their knowledge and operationalize EVA in practice.

#### **BIBLIOGRAPHIC REFERENCES**

1. Zhang J, Aboud A. Determinants of economic value added (EVA) in Chinese listed banks. Asian Review of Accounting. 2019;27(4):595-613.

2. Young K, Hurtado Jr JM, Bleacher JE, Garry WB, Bleisath S, Buffington J, et al. Tools and technologies needed for conducting planetary field geology while on EVA: Insights from the 2010 Desert RATS geologist crewmembers. Acta Astronautica. 2013;90(2):332-43.

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3. Yao LJ, Sutton SG, Chan SH. Wealth creation from information technology investments using the EVA®. Journal of Computer Information Systems. 2009;50(2):42-8.

4. Xu M, Albitar K, Li Z. Does corporate financialization affect EVA? Early evidence from China. Green Finance. 2020;2(4):392-408.

5. Tortella BD, Brusco S. The Economic Value Added (EVA): an analysis of market reaction. Advances in Accounting. 2003;20:265-90.

6. Subedi M, Farazmand A. Economic value added (EVA) for performance evaluation of public organizations. Public Organization Review. 2020;20:613-30.

7. Stewart III GB. The Role of the Cost of Capital in EVA and in Corporate Value-Based Management. Cost of Capital. 2014:825-38.

8. Stern J. Acquisition, pricing, and incentive compensation. Corporate Accounting. 1985;3(2):26-31.

9. Shad MK, Lai FW. A conceptual framework for enterprise risk management performance measure through economic value added. 2015.

10. Saji T. EVA and stock returns in emerging markets: the Indian evidence. IUP Journal of Accounting Research & Audit Practices. 2014;13(4):25.

11. Saeedi A, Akbari N. Impacts of inflation on the effectiveness of EVA: Evidence from Iranian companies. International Research Journal of Finance and Economics. 2010;37:66-78.

12. Pavelková D, Homolka L, Knápková A, Kolman K, Pham H. EVA and key performance indicators: The case of automotive sector in pre-crisis, crisis and post-crisis periods. Economics and Sociology. 2018.

13. Owusu-Antwi G, Mensah L, Crabbe M, Antwi J. Determinants of bank performance in Ghana, the economic value added (EVA) approach. International Journal of Economics and Finance. 2015;7(1):204-15.

14. Lovata LM, Costigan ML. Empirical analysis of adopters of economic value added. Management Accounting Research. 2002;13(2):215-28.

15. Kryzanowski L, Mohsni S. Capital returns, costs and EVA for Canadian firms. The North American Journal of Economics and Finance. 2010;21(3):256-73.

16. Indriakati AJ. Financial Performance Analysis Using the Economic Value Added Method. Advances in Applied Accounting Research. 2023;1(2):81-92.

17. Iazzolino G, Laise D, Migliano G. Measuring value creation: VAIC and EVA. Measuring Business Excellence. 2014;18(1):8-21.

18. Fiordelisi F, Molyneux P. Total factor productivity and shareholder returns in banking. Omega. 2010;38(5):241-53.

19. Finegan PT. Financial incentives resolve the shareholder-value puzzle. Corporate Cashflow. 1989;9:27-32.

20. Chen Q, Zhang X, editors. A Research on Performance Measurement Based on Economic Valued-Added Comprehensive Scorecard. International Conference on Electronic Commerce, Web Application, and Communication; 2011: Springer.

21. Burkšaitienė D. Measurement of value creation: Economic value added and net present value. 2009.

22. Bromwich M, Walker M. Residual income past and future. Management Accounting Research. 1998;9(4):391-419.

23. Bluszcz A, Kijewska A. Factors creating economic value added of mining company. Archives of mining sciences. 2016;61(1):109--23.

24. Berzakova V, Bartosova V, Kicova E. Modification of EVA in value based management. Procedia Economics and Finance. 2015;26:317-24.

25. Athanassakos G. Value-based management, EVA and stock price performance in Canada. Management Decision. 2007;45(9):1397-411.

26. Arbuckle JL. IBM SPSS Amos 20 user's guide. Amos development corporation, SPSS Inc. 2011:226-9.

27. Altendorfer K, Jodlbauer H. Which utilization and service level lead to the maximum EVA? International Journal of Production Economics. 2011;130(1):16-26.

28. Ahmed K, Courtis JK. Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis. The British Accounting Review. 1999;31(1):35-61.

### FINANCING

The authors did not receive financing for the development of this research.

### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

#### **AUTHORSHIP CONTRIBUTION:**

Conceptualization: Nguyen Thi Mo. Data curation: Nguyen Thi Mo. Formal analysis: Nguyen Thi Mo. Acquisition of funds: Nguyen Thi Mo. Research: Nguyen Thi Mo. Methodology: Nguyen Thi Mo. Project management: Nguyen Thi Mo. Project management: Nguyen Thi Mo. Resources: Hoang Van Hue. Software: Hoang Van Hue. Supervision: Dinh Thi Hang. Validation: Nguyen Thi Mo. Display: Dinh Thi Hang. Drafting - original draft: Hoang Le Huyen. Writing - proofreading and editing: Nguyen Thi Mo.