Innovative Numerical Model of the Relevance of the Stock Exchange of Thailand

Chutima Phungklam[1*], Jackraphan Phongpetra[2]

Received: September 12, 2023; Revised: September 20, 2023;
Accepted: September 29, 2023; Published Online: October 28, 2023

Abstract

This Research studied the correlation between Independent Variables of Intangible Assets (INT), Cash flow from Operating Activities (CFO), Cash flow from Investing Activities (CFI), Cash flow from Financing Activities (CFF), Earnings Before Interest and Tax (EBIT), and Net Income (NI) with Dependent Variable, Stock Price (Price), whereas Controllable Variables are Leverage and Size. Financial statement reports are collected from Listed Companies of Stock Market of Thailand, which are printing businesses, during B.E. 2561 – 2565. Research results found that there were 3 Independent Variables, which are INT, CFO, and CFI not correlated between Price. In contrast, the correlation between CFF, EBIT, and NI is significantly with Price. The five models highlight the correlation between stock prices and potential returns. Thus, investors should consider their portfolios, evaluating returns and security prices, as a pivotal step in investment decision. The study found that intangible assets, cash flow from operating and investing activities had no significant correlation with stock prices, while cash flow from financing activities, earnings before interest and tax, and net income showed significant correlations. The research provided five models to help investors assess the connection between these financial factors and stock prices, emphasizing the importance of considering these variables in investment decisions for Thai printing companies. In conclusion, your research underscores the importance of considering specific financial variables when evaluating investment opportunities in Thai printing companies. By identifying which financial factors have a significant impact on stock prices, investors can make more informed decisions to potentially enhance their portfolios and achieve better returns.

Keywords: Correlation, Stock Price, Printing Business, Earnings Before Interest and Tax (EBIT)

[1] Student of Master of Accounting , Accounting Program , Faculty of Accountancy Rajapruk University , 9 Moo 1, Nakhon In Road, Bang Khanun Subdistrict, Bang Kruai District, Nonthaburi Province 11130 ,Thailand.

[2] Adviser and Director of Master of Accounting , Accounting Program , Faculty of Accountancy Rajapruk University , Thailand.

[*] Corresponding Author Email: perfect.audits@gmail.com

Introduction

In today's dynamic and increasingly digitalized business landscape, the valuation of companies goes beyond traditional financial metrics. The recognition of intangible assets, such as intellectual property, brand reputation, and technological innovation, has become integral to understanding a company's true value. Additionally, financial performance indicators, including cash flow and earnings, play a significant role in reflecting a firm's financial health and growth potential. Consequently, the relationship between these variables and market prices has garnered considerable attention among researchers and practitioners alike. This study seeks to provide valuable insights into the intricate interplay between intangible assets, cash flow, earnings, and their impact on market prices, focusing specifically on the media and publishing sector of the Stock Exchange of Thailand. The media and publishing sector, characterized by its reliance on intellectual property and content creation, serves as an ideal setting to investigate the relevance of intangible assets in influencing market valuations. Utilizing an innovative numerical model, this research aims to contribute to the existing literature by examining how intangible assets, cash flow, and earnings collectively contribute to the determination of market prices in the media and publishing industry.

By analyzing data from the Stock Exchange of Thailand, this study intends to uncover potential patterns and relationships that shed light on the valuation dynamics within this sector of the Media and Publishing Sector of the Stock Exchange of Thailand. The rest of the paper is organized as follows: Section 2 provides a comprehensive review of the relevant literature, highlighting key studies that have explored similar themes. Section 3 outlines the methodology employed, detailing the data collection process, variables under consideration, and the numerical model used. Section 4 presents the results of the analysis, followed by a discussion of the findings in Section 5. The paper concludes with implications for academia and industry, along with avenues for further research. Currently, Thailand has entered an era of low interest rates, with a continuous downward trend in interest rates. The Thai economy is showing a consistent expansion, driven by the tourism sector and private consumption. Meanwhile, exports are starting to rebound from their previous contraction, and it is anticipated that they will significantly recover in the latter half of the year. However, global economic uncertainties are on the rise, partly due to inflationary trends and the challenging financial institutional landscape in the country's core economy. In terms of general inflation rates, there is a tendency for them to gradually approach target levels in the middle of this year. Nevertheless, underlying inflation rates remain high and pose significant risks due to cost pass-through and upward pressure on inflation from supply-side factors.

Overall, this research endeavors to deepen our understanding of the factors that influence market prices in the media and publishing sector, contributing to the broader discourse on the valuation of intangible assets and financial performance metrics.

Objectives

To study the relationship in the context of intangible assets, the cash flows of the business operations and profitability with the underlying asset value and the relationship of intangible assets, cash flows, and performance against the underlying asset value in the Stock Exchange of Thailand-listed companies under the service industry sector, specifically in the media and printing business category, comprising a total of 26 companies. This includes a comparative analysis of the relevance and correlation of intangible assets, cash flows, and business performance with the security prices of the company and its operations.

Scope of Study

This research examined the relationship between the fair value of intangible assets, the cash flows of business operations, and the profitability associated with the market value of the underlying securities' prices of the registered companies in the service industry sector, specifically in the media and printing business category, totaling 26 companies, in the Stock Exchange of Thailand. This involves comparing the correlation of

intangible asset value without identity, comparing the correlation of profitability that reflects the price relationship with security prices.

Research Methodology

1. The design of this research is to examine the relationship between intangible assets, cash flows, and profitability with the securities' prices of companies registered in the service industry sector, specifically in the media and printing business category, totaling 26 companies, in the Stock Exchange of Thailand. The researcher has studied and gathered relevant theories, concepts, as well as documents and various research works to establish the research methodology as follows:

2. Population and Sample Group

The population consists of companies within the service industry sector in the Stock Exchange of Thailand, totaling 127 companies.

The sample group used in this study includes 26 companies registered in the Stock Exchange of Thailand within the service industry sector, specifically in the media and printing business category. Data was collected from annual reports for the years 2018 to 2022, spanning a period of 5 years.

H1: Hypothesis 1: Intangible assets (INT) have a one-way relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

H2: Hypothesis 2: Cash flow from operating activities (CFO) has a one-way relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

H3: Hypothesis 3: Cash flow from investing activities (CFI) has an opposite direction relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

H4: Hypothesis 4: Cash flow from financing activities (CFF) has an opposite direction relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

H5: Hypothesis 5: Earnings before interest and taxes (EBIT) have a one-way relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

H6: Hypothesis 6: Net income (NI) has a one-way relationship with the prices of securities in the stock market, service industry group, media and publishing business category.

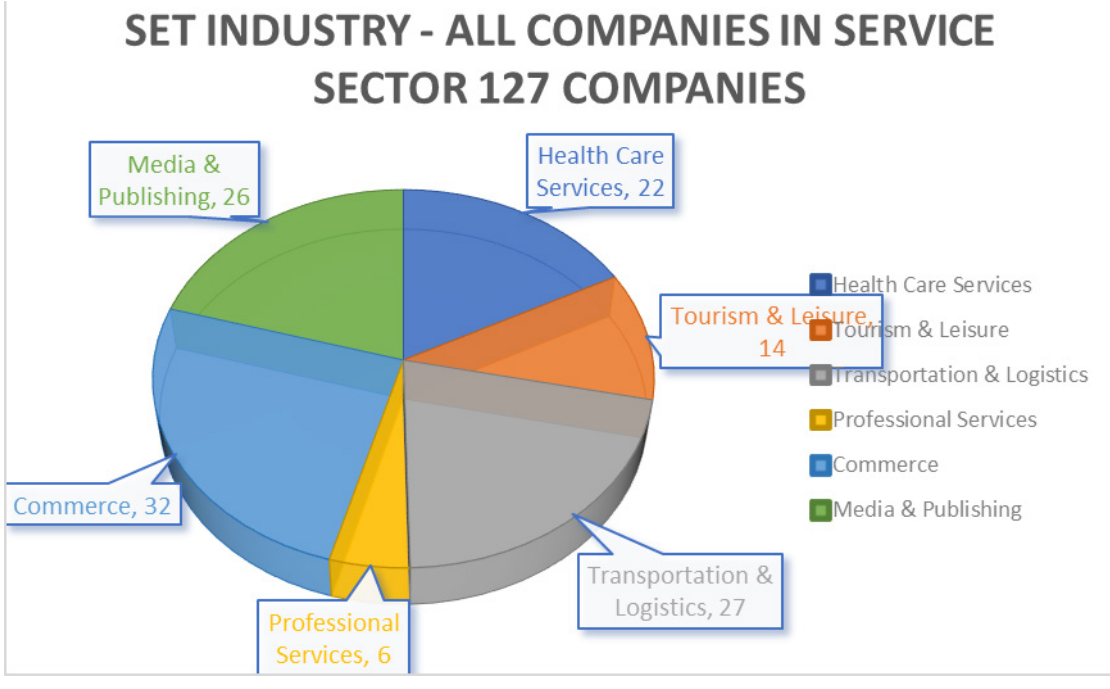

Figure 1. The population consists of companies within the service industry sector in the Stock Exchange of Thailand, totaling 127 companies.

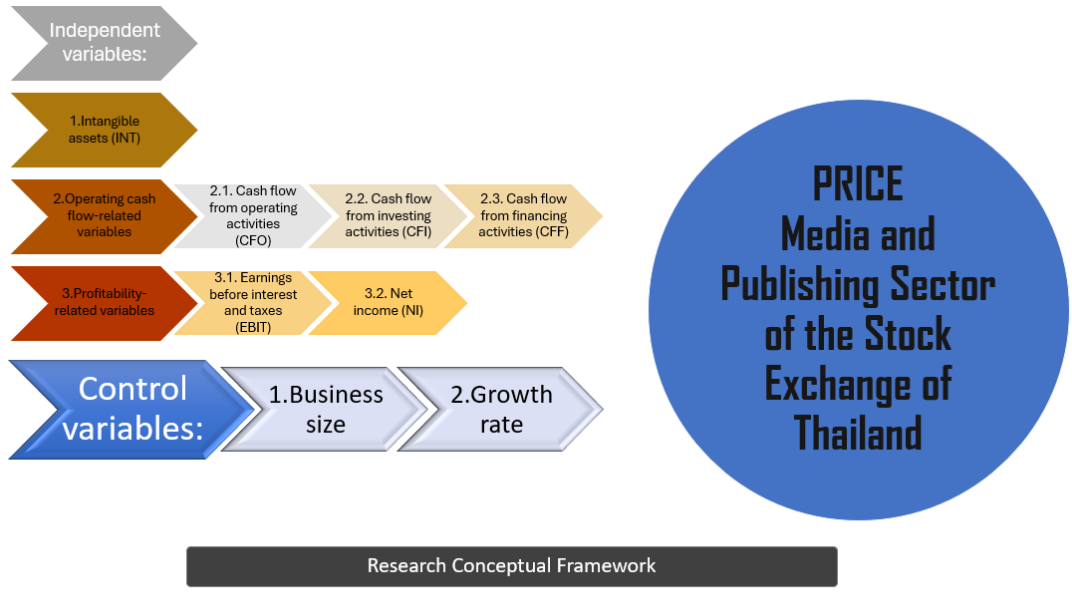

Figure 2. Research Conceptual Framework

Basso, Feitosa, Bido & Kimaru (2013) conducted research on the disclosure of information regarding intangible assets and its positive relationship with a company's profitability and growth. [2] [13] [23]

Devalle A. & Rizzato (2014) studied the disclosure of financial statement information related to intangible assets in compliance with Accounting Standard No. 38, investigating whether companies adhere to the standard. [8] [24] [25]

Therefore, intangible assets refer to assets that lack physical form, cannot be touched, but have measurable economic value and contribute to a company's operations.

Bhushan (1989) explored the impact of company size on information that affects companies in the securities market. The research found that larger companies have lower information costs compared to smaller companies. This aligns with Freeman's (1987) work, which showed that larger companies' stock prices reflect earnings information more quickly than smaller companies. Company size also affects the willingness to disclose information, consistent with Acaranupong's (2017) research. [3] [11] [20] [26]

Acaranupong (2017) studied how the growth rate of companies is positively correlated with stock prices. The growth rate can be calculated using market value divided by book value of common stocks, and the debt-to-asset ratio also affects a company's ability to raise capital, impacting operations and stock prices. [1] [10] [21] [4]

Nariswari, Nugraha (2020) investigated the impact of net profit margin (NPM), gross profit margin (GPM), and total assets turnover (TAT) on the profitability of plastic and packaging industry companies listed on the Indonesia Stock Exchange from 2014 to 2019. The study found that NPM, GPM, and TAT significantly affected profitability, with NPM having the most significant impact.

Reviewing related literature on working capital management and profitability, it has been found that the working capital turnover ratio has a positive impact on operating profit (Zubairi, 2010). Additionally, the working capital turnover ratio is positively related to the return on assets (ROA) and negatively related to financial flexibility (Azam and Haider, 2011). Furthermore, Song, Liu, and Chen (2012) emphasized the importance of analyzing financial liquidity, as it reflects a company's ability to convert assets into cash for timely debt repayment. Thus, this study aims to investigate the impact of financial liquidity and profitability on the growth of corporate profitability. [22] [5] [12] [16] [17] [27] [6]

Mansoori and Muhammad (2012) and Gul et al. (2013) found a negative relationship between accounts receivable collection period and inventory turnover pe-

riod with return on assets. Tauringana and Afifa (2013) also found that accounts receivable collection period and inventory turnover period were negatively related to return on assets. Moreover, research has shown that accounts receivable collection period and inventory turnover period are positively related to the cash conversion cycle (Teruel and Solano, 2007; Tauringana and Afifa, 2013). [19] [14] [12]

3. Data Analysis and Results

The objective of this research is to study the relationship between intangible assets, cash flows, and profitability with the stock prices of companies registered in the Thai Stock Exchange market in the service industry, specifically in the media and printing business category. The study involves a total of 26 companies. The population for this research consists of companies in the service industry listed in the Thai Stock Exchange market, totaling 127 companies. However, the sample group for this study specifically includes 26 companies from this population. Data for the study will be collected from annual reports for the years 2018 to 2022, covering a period of 5 years.

The research model used in this study consists of a total of 5 models. In each model, all independent variables are divided by the number of common shares to facilitate data comparison and reduce differences. The sample size can be calculated from the following formula:

Model 1: Relationship between intangible assets (INT) and stock prices (SP).

Model 2: Relationship between cash flow from operating activities (CFO) and stock prices (SP).

Model 3: Relationship between cash flow from investing activities (CFI) and stock prices (SP).

Model 4: Relationship between cash flow from financing activities (CFF) and stock prices (SP).

Model 5: Relationship between profitability (EBIT and NI) and stock prices (SP).

These models aim to explore how various financial factors, such as intangible assets, cash flows, and profitability, relate to the stock prices of the studied companies.

$$Model1\ P_{i,t} = \alpha + \beta_1(INT_{i,t}) + \beta_2(Sizei,t) + \beta_3(Lever) + \varepsilon_{i,t}$$

$$Model2\ P_{i,t} = \alpha + \beta_1(CFO_{i,t}) + \beta_2(CFI_{i,t}) + \beta_3(CFF_{i,t}) + \beta_4(Sizei,t) + \beta_5(Lever) + \varepsilon_{i,t}$$

$$Model3\ P_{i,t} = \alpha + \beta_1(EBIT_{i,t}) + \beta_2(Sizei,t) + \beta_3(Lever) + \varepsilon_{i,t}$$

$$Model4\ P_{i,t} = \alpha + \beta_1(NI_{i,t}) + \beta_2(Sizei,t) + \beta_3(Lever) + \varepsilon_{i,t}$$

$$Model5\ P_{i,t} = \alpha + \beta_1(INT_{i,t}) + \beta_2(CFO_{i,t}) + \beta_3(CFI_{i,t}) + \beta_4(CFF_{i,t}) + \beta_5(NI_{i,t}) + \beta_6(Sizei,t) + \beta_7(Lever) + \varepsilon_{i,t}$$

4. Tools used in the research

Table 1 shows descriptive statistics for the variables in the research model. All the variables shown in the table are single-measure constructs including the control variables. For all the variables excepting Price and the controls – Leverage and Size – the order of magnitude was reduced by one billion (10^9) in order to make the analysis results more manageable in terms of meaningfulness and interpretability.

This form of scaling is commonly applied to exceedingly large numbers (e.g., in billions and trillions) in order to maintain the manageability of values while preserving the integrity of associations within the model, provided standardized metrics are used. In more precise terms, the proportion of the variance in the final dependent variable (the outcome variable) explained by its predictor(s) (R-squared), correlations among model variables, standardized regression coefficients, and model fit remain unaffected by data re-scaling.

Consequently, the interpretation of the data obtained from the analyses using SPSS – a statistical software package for social sciences – should consider the scale of magnitude present in all the unstandardized statistics resulting from descriptive data analysis (as shown in Table 1) and linear regression analysis (e.g., unstandardized regression coefficients) for all variables, excluding the outcome variable Price, and control variables: Leverage, and Size.

Table 1 presents the statistical characteristics of various important variables in the research study, offering insights into the dataset's distribution, central tendency, and dispersion. [14] [13] [15]

Table 1. Descriptive statistics of the data

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Price	94	0.0900	25.7500	7.1311	6.6617
Size	94	14.3711	23.6063	21.8318	1.6308
Leverage	94	1.1744	13.8011	3.4089	2.6209
INT	94	0.0000	6.4084	0.6301	1.0433
CFO	94	-0.5431	3.6346	0.5610	0.8411
CFI	94	-3.9020	4.2677	-0.4374	0.9608
CFF	94	-3.2669	2.0776	-0.0833	0.7253
EBIT	94	-2.0743	1.8935	0.1599	0.5154
NI	94	-1.5584	2.6363	0.1186	0.4991

Note: INT, CFO, CFI, CFF, EBIT, and NI are displayed in 10^9. **N**: number of cases observed.

The statistical characteristics of the variables used in this research study are displayed in Table 1. These statistics provide the description of the data distribution, central tendency, and dispersion. The dataset comprises 94 observations, and each variable's minimum, maximum, mean, and standard deviation values are included in the table.

As can be seen from the Table 1, the minimum Price value is 0.0900, while the maximum price is 25.7500. On average, the prices stand at 7.1311, with a standard deviation of 6.6617. For the variable Size, the values range from 14.3711 to 23.6063. The mean is calculated to be 21.8318, and the standard deviation is 1.6308. The values for Leverage vary from 1.1744 to 13.8011. The mean leverage is computed as 3.4089 along with the standard deviation of 2.6209. The INT variable's values range between 0.0000 and 6.4084. Its mean is 0.6301, and the standard deviation is 1.0433. The variable CFO has a range between -0.5431 and 3.6346. The mean for CFO is 0.5610, with a standard deviation of 0.8411. The CFI variable has values fluctuating between -3.9020 and 4.2677, the mean of -0.4374, and the standard deviation of 0.9608. The variable CFF ranges from -3.2669 to 2.0776. CFF has the mean of -0.0833, and the standard deviation of 0.7253. The values for EBIT range from -2.0743 to 1.8935. The mean of EBIT is 0.1599, the standard deviation is 0.5154. And lastly, the NI variable's values vary from -1.5584 to 2.6363, have the mean of 0.1186, and the standard deviation of 0.4991. Additionally, it should be noted that the variables labeled as INT, CFO, CFI, CFF, EBIT, and NI are presented in units of 10^9.

1) Correlations

Bivariate correlations among model variables are displayed in Table 2. The correlations that are statistically significant provide partial evidence (no time order specified) for the relationship among model variables. Conversely, if a correlation is shown to be not statistically significant, it means that the sample data used in this study has no support for this particular association. That being said, it is possible (however, not probable) that the same named correlations may be found statistically significant in a different, more homogenous, and perhaps larger dataset.

Table 2. Correlations for model variables

Variable	INT	CFO	CFI	CFF	EBIT	NI	Price	Size	Leverage
INT	1								
CFO	**.351****	1							
CFI	**.439****	**.677****	1						
CFF	**.205***	*0.121*	**.473****	1					
EBIT	0.136	**.294****	0.012	**.322****	1				
NI	0.099	0.141	0.056	*0.156*	**.789****	1			
Price	*0.021*	**.245***	0.089	**.334****	**.438****	**.411****	1		
Size	**.297****	**.401****	**.266****	0.059	0.190	0.148	**.225***	1	
Leverage	*0.114*	*0.127*	0.107	0.026	0.044	0.052	0.064	**.290****	1

Note: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). The shaded cells show control variables.

As can be seen from the table of correlations above:

(a) The coefficients in bold are statistically significant at a level of 0.05 or less. The ones in italics are negative and all of the other correlations are positive.

(b) It is noted that there are statistically significant correlations associated with model variables including independent variables, dependent variables, and the control variables, namely: INT with CFO, CFI, CFF, and Size; CFO with CFI, EBIT, Price, and Size; CFI with CFF, and Size; CFF with EBIT, and Price; EBIT with NI, and Price; NI with Price; and Size with Leverage.

(c) As can be seen from the table, the range of variable correlations is rather large, indicating that the variations in the data are considerable. This may contribute to the statistical non-significance of some of the correlations shown in the table. Most of the correlation magnitudes are within 0.30 – 0.50 value range which indicates moderate strength of the association (Cohen et al., 2013). Two correlations are greater than 0.50, which indicates a strong association between these variables, and six correlations have values lower than 0.30, which indicates a weak association (Cohen et al., 2013). In addition, some of the correlations are negative and statistically significant, which shows that these entities vary together, however, in the opposite directions. The correlations (either positive or negative) that are not statistically significant are not considered valid for further analysis or interpretation for they are not supported by the data used in this study. [7]

2) Regression Analysis

In examining the relationship between CFF and Price, the following observations were made. The effect of CFF on Price is statistically significant ($p < 0.001$) and of medium magnitude (0.323) by Cohen et al.'s, (2003) criteria. Also, of importance here is that the effect direction is negative, meaning that when the variable CFF goes up one standard deviation, the variable Price goes down by 0.323 standard deviation (Beta = -.323).

It is important to note that the statistical significance of a relationship means that the connection is not "by chance but instead, it indicates the presence of empirical evidence supporting the existence of a similar interaction within the population from which the study sample was drawn. Given this perspective, the unstandardized coefficient (B) can be used to make a justified prediction about the decrease in Price following the increase in CFF, in their respective units of measurement.

As far as R-squared is concerned, the model explains roughly 17 percent of the variance in Price (this includes the variance attributed to the controls), which can be generally seen as low. However, in some fields of research low values are indicative of an important outcome. [7]

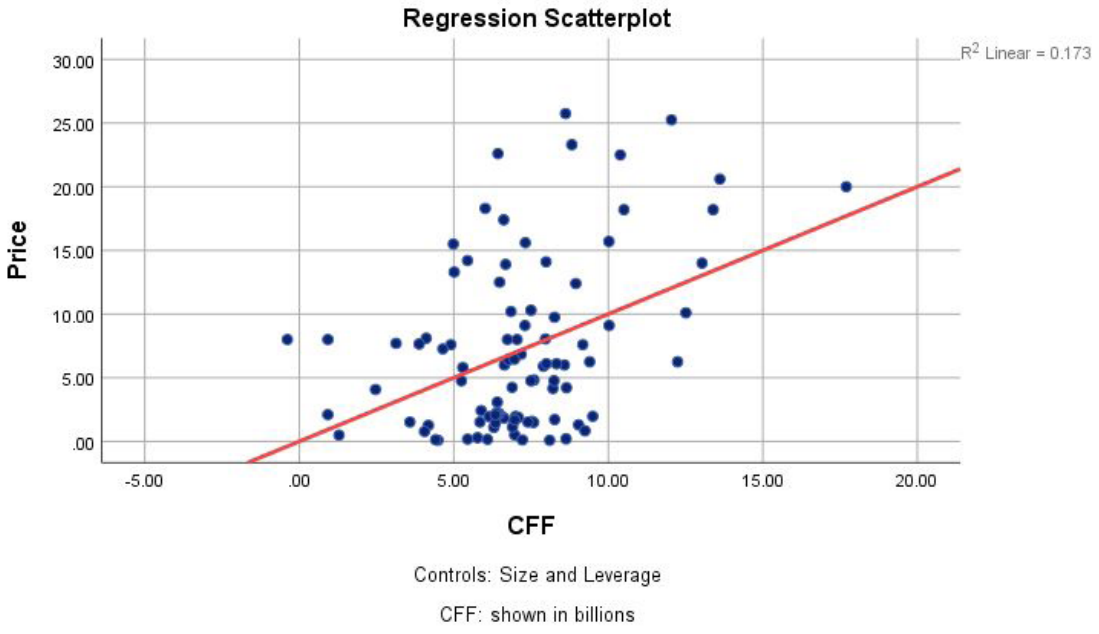

Figure 3. CFF and controls

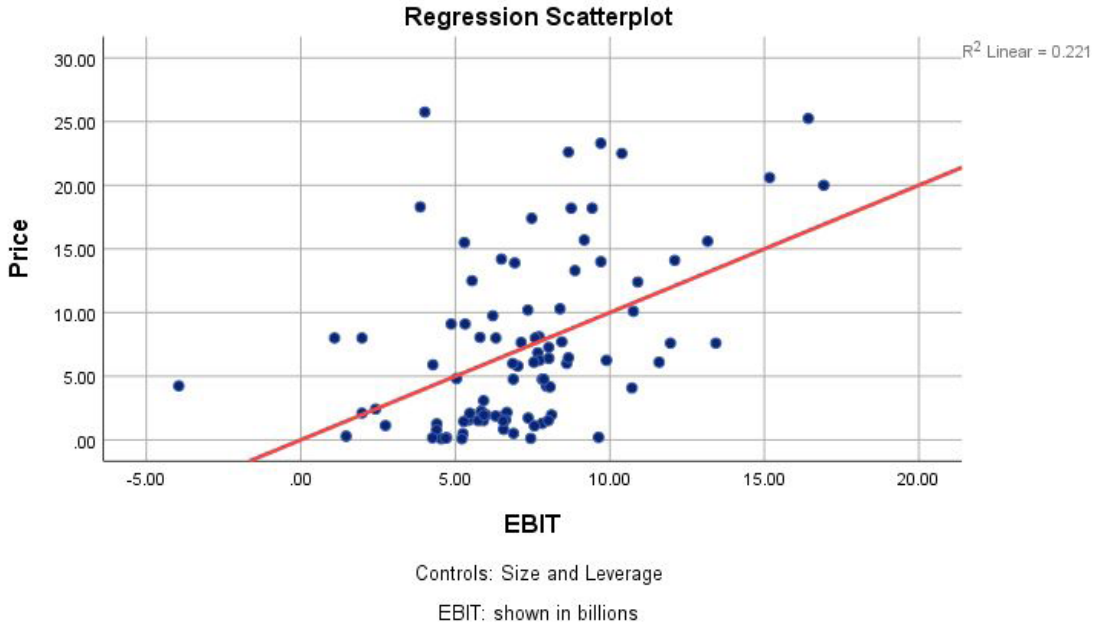

Figure 4. EBIT and controls

The relationship between EBIT and Price was also analyzed. The results of this analysis are presented in Figure 4. As can be seen in Figure 4, this relationship is statistically significant, $p < 0.001$, hence the hypothesis associated with this relationship was confirmed by the data. The magnitude of the effect of EBIT on Price is 0.400, which, based on the criteria by Cohen et al., is medium.

The R-squared is 0.470, meaning that this regression model explains about one half of the total variance in Price, which can be considered fairly high in the field of business research. In addition, the unstandardized effect of EBIT on Price is 0.400 and positive. This indicates that for every one-unit increase (measured in billions of baht, as previously mentioned) in EBIT, there is a corresponding increase of 5.171 units in Price. [7]

Next, the relationship between NI and Price was examined using linear regression. The obtained results are depicted in Figure 5. The statistics in Figure 5 indicate that this relationship is statistically significant

at the p level of 0.001; therefore, the hypothesis associated with this relationship was also confirmed by the data.

The size of the effect of NI on Price is 0.377, which also is medium by the criteria used in this study. It is interesting that this effect is roughly of the same magnitude as the effect of EBIT on Price, which is 0.400. The R-squared is 0.454, meaning that this regression model explains about one half of the total variance in Price. This value shows similarity to the R-squared in the context of the EBIT and Price relationship. In addition, this relationship is positive. The size of the B coefficient (unstandardized effect) indicates that for every unit of measurement increase (measured in billions of baht, as previously mentioned) in NI, there is a corresponding increase of 5.028 in Price in its units of measurement.

It is noted that there is a similarity in the effect patterns of both EBIT and NI in relation to the dependent variable Price; and based on the effect sizes, it is evident that both are important predictors of Price, which in turn means that their B coefficients can be used in formulas to predict the value of Price, taking into consideration the effects of the control variables.

Conclusion

This research aims to analyze the relationship between six independent variables: (1) Intangible assets (INT), (2) Cash flows from operating activities (CFO), (3) Cash flows from investing activities (CFI), (4) Cash flows from financing activities (CFF), (5) Earnings before interest and taxes (EBIT), and (6) Net income (NI), and their impact on the dependent variable, which is the stock price (Price). Two control variables, (1) Leverage ratio and (2) Size, are also included in the study.

Furthermore, in terms of predicting stock prices, the study found that when considering the Adjusted R-square value, earnings before interest and taxes (EBIT) and cash flows from investing activities (CFI) together provide the best prediction. When comparing the explanatory power of earnings and cash flows in relation to stock prices, earnings-related data were found to provide better explanatory power than cash flow-related data.

This study's findings can be beneficial for investment decision-making in the stock market. Investors can use the results to analyze future trends in stock prices by considering both cash flow and earnings data. From the study's results, it was concluded that EBIT and CFI can together provide the most effective prediction of stock prices. [23]

Acknowledgements

The study uses data from the financial statements of companies registered in the Stock Exchange of

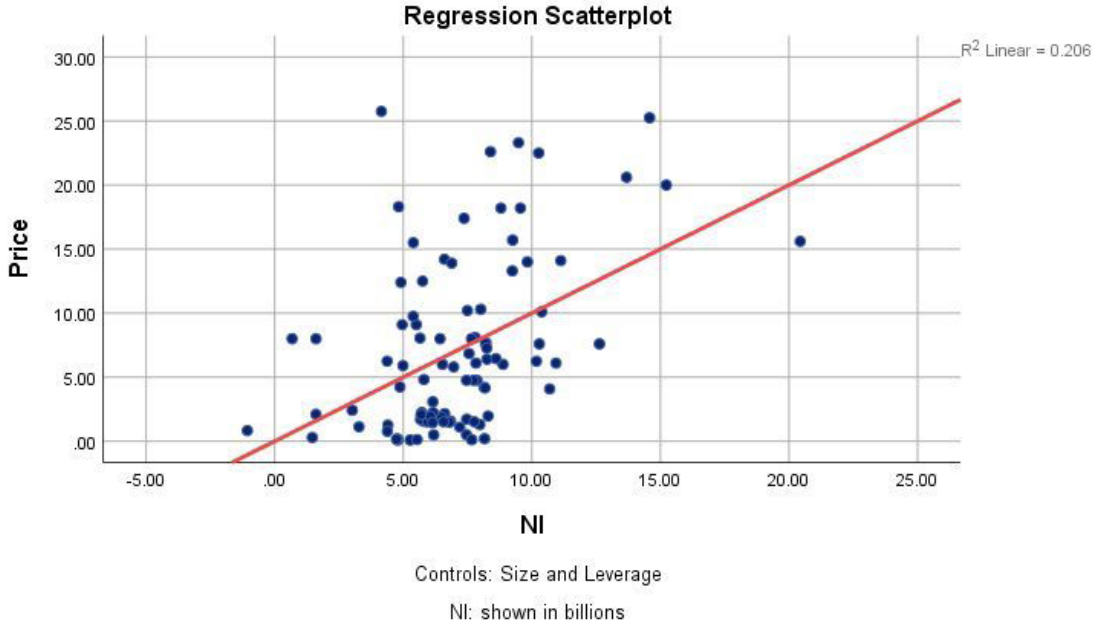

Figure 5. NI and controls

Thailand within the service industry, specifically in the media and publishing sector, for the years 2018 to 2022. The main objectives are to investigate the relationships between intangible assets, various cash flows, and earnings with stock prices. The study aims to provide useful insights for investors to analyze data more efficiently. The analysis method employed is multiple regression analysis to test the research hypotheses.

Suggestions

The results suggest that only cash flows and earnings have statistically significant relationships with stock prices, while intangible assets, which lack specific identifiers, do not have a statistically significant impact on stock prices.

References

[1] Acaranupong, K. (2017). Comparative value relevance of earnings, book values and cash flows: Empirical evidence from listed companies on SET100 in Thailand. Journal of Accounting Profession, 13(38), 95-114.

[2] Basso, L. F. C., Seligmann-Feitosa, E., Bido, D., & Kimura, H. (2013, April). The existence and disclosure of intangibles versus corporate financial performance in France. In ECIC 2013 Proceedings of the 5th European Conference on Intellectual Capital: ECIC 2013 (p. 63). Academic Conferences Limited.

[3] Bhushan, R. (1989). Collection of information about publicly traded firms: Theory and evidence. Journal of Accounting and Economics, 11(2-3), 183-206.

[4] Bhandari, S. B., & Adams, M. T. (2017). On the definition, measurement, and use of the free cash flow concept in financial reporting and analysis: a review and recommendations. Journal of Accounting and Finance, 17(1), 11-19.

[5] Campbell, J. Y. (1999). Asset prices, consumption, and the business cycle. Handbook of macroeconomics, 1, 1231-1303.

[6] Charitou, A. G., & Venieris, G. (1990). The need for cash flow reporting: Greek evidence. The British Accounting Review, 22(2), 107-117.

[7] Cohen, J., Cohen, P., West, S.G. and Aiken, L.S., 2013. Applied multiple regression/correlation analysis for the behavioral sciences. Routledge.

[8] Devalle, A., & Rizzato, F. (2014). The determinants of the quality of mandatory disclosure of intangible assets under IFRS. GSTF Journal on Business Review (GBR), 3(3).

[10] Degiannakis, S., Filis, G., & Arora, V. (2018). Oil prices and stock markets: A review of the theory and empirical evidence. The Energy Journal, 39(5).

[11] Dimitrijević, D. (2015). The detection and prevention of manipulations in the balance sheet and the cash flow statement. Ekonomski horizonti, 17(2), 137-153.

[12] Drake, M. S., Myers, J. N., & Myers, L. A. (2009). Disclosure quality and the mispricing of accruals and cash flow. Journal of Accounting, Auditing & Finance, 24(3), 357-384.

[13] Ghysels, E., Plazzi, A., Valkanov, R., & Torous, W. (2013). Forecasting real estate prices. Handbook of economic forecasting, 2, 509-580.

[14] Gregory, G. (1976). Cash flow models: a review. Omega, 4(6), 643-656.

[15] Hair, J.F., Anderson, R.E., Babin, B.J. and Black, W.C. (2009), Multivariate Data Analysis (7th Ed.), Prentice Hall. ACM.

[16] Hales, J., & Orpurt, S. F. (2013). A review of academic research on the reporting of cash flows from operations. Accounting Horizons, 27(3), 539-578.

[17] Jones, S., Romano, C. A., & Smyrnios, K. X. (1995). An evaluation of the decision usefulness of cash flow statements by Australian reporting entities. Accounting and Business Research, 25(98), 115-129.

[18] Landau, S., & Everitt, B. S. (2003). A handbook of statistical analyses using SPSS. Chapman and Hall/CRC.

[19] Mansoori, D. E., & Muhammad, D. (2012). Determinants of working capital management: Case of Singapore firms. Mansoori, E, Joriah Muhammad (2012), Determinants of working capital management: Case of Singapore firms," Research Journal of Finance and Accounting, 3(11), 15-23.

[20] Mishkin, F. S. (2001). The transmission mechanism and the role of asset prices in monetary policy.

[21] Mulenga, M., & Bhatia, M. (2017). The review of literature on the role of earnings, cash flows and accruals in predicting of future cash flows. Accounting and finance Research, 6(2), 59-70.

[22] Nariswari, T. N., & Nugraha, N. M. (2020). Profit growth: impact of net profit margin, gross profit margin and total assests turnover. International Journal of Finance & Banking Studies (2147-4486), 9(4), 87-96.

[23] Nichols, D. C., and Wahlen, J. M. (2004). How do earnings numbers relate to stock returns? A review of classic accounting research with updated evidence.Accounting Horizons, 18(4), 263-286

[24] Ohlson, J. A. (1999). Discussion of an anlaysis of historical and future-oriented Information in accounting-based security valuation models, Contemporary Accounting Research. 16(2), 381-384.

[25] Ritter, A., and Wells, P. (2006). Identifiable intangible asset disclosures, stock price and future earnings. Accounting & Finance, 46(5), 843-863

[26] Scott, H., and Pam, K. (1991). An empirical analysis of the financial structure of small and large Australian manufacturing enterprises. Journal of Entrepreneurial Finance, 1(2). 141-154.

[27] Yazan, S. O. (2017). The effect of cash flows on the share price Stock Exchange. American Based Research Journal, 6(7). 22-28.