

## Director Characteristics and Stock Price Synchronicity

Jennifer Shansan Louise Haryanto<sup>1\*</sup>, Sansaloni Butar-Butar<sup>2</sup>

<sup>1,2</sup> Department of Accounting, Soegijapranata Catholic University, Semarang, Indonesia

\* Corresponding author email: [sansaloni@unika.ac.id](mailto:sansaloni@unika.ac.id)

### Abstract

*The purpose of this research is to test the effects of directors' abilities, and nationality on the stock price synchronicity. This study also reexamines the effect of fixed asset valuation models on the stock price synchronicity. The sample was collected randomly from the Indonesia Stock Exchange for the period of 2019-2022, resulting in 200 firm observations to test the hypotheses. However, 72 observations were eliminated due to negative adjusted R-squared and the extreme values. The final sample available for further analysis is 128 observations. Using multiple linear regression analysis, the results show the abilities and nationality of directors has no significant effect on stock price synchronicity. However, fixed asset valuation has a significant effect on stock price synchronicity, suggesting that revaluation models increase the value relevance of fixed assets.*

**Keywords:** *Asset Valuation Model, Director Nationality, Managerial Abilities, Stock Price Synchronicity*

### Abstrak

Tujuan penelitian ini adalah untuk menguji pengaruh kemampuan manajerial dan kewarganegaraan direksi terhadap sinkronisitas harga saham. Penelitian ini mengkaji ulang pengaruh model penilaian aset tetap terhadap sinkronisitas harga saham. Sampel dikumpulkan secara acak dari Bursa Efek Indonesia untuk periode 2019-2022, menghasilkan 200 observasi perusahaan untuk menguji hipotesis. Namun, 72 observasi dieliminasi karena nilai  $R^2$  negatif dan nilai ekstrim. Sampel akhir yang tersedia untuk analisis lebih lanjut adalah 128 observasi. Dengan menggunakan analisis regresi linier berganda, hasilnya menunjukkan bahwa kemampuan dan kewarganegaraan direktur tidak berpengaruh signifikan terhadap sinkronisitas harga saham. Namun, model penilaian aset tetap berhubungan signifikan dengan sinkronisitas harga saham yang menunjukkan bahwa model revaluasi meningkatkan relevansi nilai aset tetap.

**Kata Kunci:** *Model Penilaian Aset, Kebangsaan Direktur, Kemampuan Manajerial, Sinkronisitas Harga Saham*

## 1. INTRODUCTION

According to Abedifar et al. (2021), the most popular measure to assess stock price informativeness is stock price synchronicity and an informative stock price is expected to reflect both fundamental value and company-specific information. Stock price synchronicity is generally defined as the extent to which company-specific information and market information are reflected in stock prices. Specifically, lower stock price synchronicity occurs when stock

price fluctuations are more influenced by company-specific information. Meanwhile, higher stock price synchronicity occurs when stock price fluctuations are more dominated by market information (Chan and Hameed, 2006). Thus, stock price synchronicity is a measure that indicates the proportion of market information absorbed by stock prices compared to company-specific information.

A company's information environment can influence the absorption of company-specific information into stock prices (Daouk et al., 2006). A company's information environment that provides market participants with easy and reliable access to information encourages greater absorption of company-specific information into stock prices. The more transparent environment, the more company-specific information will be absorbed into stock prices, thereby increasing stock price synchronicity. In short, the fundamental factor in determining stock price synchronicity is assessing stock price variations triggered by company-specific information (Chan and Hameed, 2006). When a company improves its information environment, it makes company-specific information available to all market participants (Fraz and Hassan, 2017).

Cross-country empirical studies have successfully identified several factors that influence stock price synchronicity. These factors include capital market governance (Morck et al., 2000), analyst forecasting activity (Piotroski and Roulstone, 2004), analyst coverage (Chan and Hameed, 2006), foreign ownership, and auditor quality (Gul et al., 2010).

This research proposes managerial abilities and nationality of the board of directors as other factors that might influence stock price synchronicity. Firms with higher managerial abilities are expected to disclose information more transparently which leads to more firm-specific information impounded into stock prices. Firms with foreign nationals are also expected to release more transparent information, making the quality of financial reports increase. In addition, valuation of fixed asset valuation methods that previously has been reported to have no relationship with stock price (Putri and Butar, 2024) will be re-examined.

This study offers several contributions. First, this research provides new insight regarding the role of directors in shaping the quality of financial reports as perceived by investors in a developing capital market. Second, public companies in Indonesia become more aware of the importance of financial report transparency to maintain the reliability, relevance, and credibility of financial reports to investors in the Indonesian capital market. Third, accounting authorities can introduce more relevant standards to improve the quality of financial reports.

## **2. LITERATURE REVIEW AND HYPOTHESES FORMULATION**

### **Stock Price Synchronicity**

Stock prices are an important instrument for investors in considering their decision to carry out stock buying and selling transactions in the capital market. According to Jogiyanto (2008), stock price movements in the capital market are determined by market players based on demand and supply for the relevant stock transactions. Alwi (2003) states that changes in stock prices in the capital market are influenced by internal and external factors. External factors include changes in interest rates, exchange rates, inflation, foreign exchange, and economic and political conditions. These types of information are also called market-wide information. On the other hand, internal factors include changes in product prices, changes in company managers, product withdrawals, business expansion, and announcements or

information on company financial reports (Iskandar, 2003). And these types of information are commonly called firm-wide information. The most well-known measure of stock price informativeness is stock return synchronicity, which is the co-movement of individual stock returns with market implications (Abedifar et al. 2021).

Stock price synchronicity is defined as the extent to which individual stock returns change in line with market returns (Gan and Hu, 2023). Moreover, stock price synchronicity reflects how far a company's stock prices move and react together due to events or conditions in the market. The extent to which dynamic changes in stock prices can influence stock returns varies (Mardianto & Juniyanti, 2020). Morck et al. (2000) states that stock price synchronicity is a relative measure of company information which is reflected in the stock return. Roll (1988) argued that stock return co-movement are driven by amounts of firm-wide information capitalized in stock prices relative to market-wide information. Thus, a higher stock price synchronicity indicates lower firm-wide information has been absorbed into stock prices.

Higher stock price synchronicity occurs when investors rely on market-wide information to make trading decisions. When company-specific information is less reliable, investors seek information from market sources to help them assess a company's prospects. Therefore, high stock price synchronicity indicates that more market-wide information is absorbed into the stock prices (Kun & Hu, 2018).

### **Characteristics of Directors**

According to Hambrick and Manson (1984), strategic decisions made by a company are closely related to the characteristics of the management team (Saputra, 2019). Two important managerial characteristics are directors' abilities and directors' nationality. A director's ability refers to the set of knowledge, skills, and experiences a CEO has acquired from the various functional roles he or she has held (Custodio et al. (2013).

### **The Ability of director**

The knowledge, skills, and experience of directors are essential to ensure the company's future success (Custodio et al. (2013)). Furthermore, directors' leadership reflects their success in implementing good governance (Prasetya & Lastanti, 2023). An empirical study shows that career background and past experience enhance directors' abilities to manage companies (Malmendier & Tate, 2005). Furthermore, Mackey (2008) reported that a director's ability is significantly related to company performance.

Financial reporting must comply with generally accepted accounting principles. Flexibility in using accounting discretion affects the quality of financial reports. Geiger & North (2006) provide evidence that discretionary accruals are influenced by director's policy. Jiang et al. (2008) provide evidence that amounts of accruals and restatements of financial statements are correlated with managers' incentives. Richardson et al. (2005) provide convincing evidence regarding the predictive components of accruals on future cash flows, deferrals of past cash flows, and allocations. These results suggest that director background and experience are correlated with a company's financial reporting policies, which in turn affect the quality of reported financial reports. Meanwhile, Demerjian et al. (2013) demonstrate that director competence increases the reliability of managers' estimates of company accruals.

Directors with strong managerial skills are expected to carry out their managerial functions honestly and promote transparent financial reporting. In turn, transparent financial

reporting increases information content of financial reports, allowing the information contained in the financial statements to be more largely absorbed into stock prices and ultimately lower the stock price synchronicity. Conversely, companies with poor director skills tend to have less quality of financial reports and higher stock price synchronicity.

Based on the previous discussion, the following hypothesis is proposed:

**H1: The ability of director is negatively related to stock price synchronicity**

### **The Nationality of Director**

Empirical studies consistently report a positive relationship between citizenship with international experience, leadership style, and salary (Sebbas, 2017; Gao et al., 2018; Jalbert et al., 2007). Jalbert et al., (2007) reported a significant relationship between citizenship and CEO management style. Meanwhile, several researchers reported a significant relationship between home country experience and management style in strategic decision-making (Piaskowska and Trojanowski, 2014; Iliev and Roth, 2018). Several other studies also report a relationship between foreign directors' experience with corporate governance, and performance (Giannetti et al., 2015; Yuan and Wen, 2018; Conyon et al., 2019).

Higher salaries for foreign directors indicate high expectations of their managerial abilities in increasing company value. Involvement in various business projects in different countries improves the quality of financial reporting policy decisions in regard to selecting accounting policies. Adopting sound accounting policies enhances the reliability and transparency of financial reports, making it easier for users to assess the company's prospects and stock price synchronicity is expected to increase.

The relationship between citizenship and stock price synchronicity is stated in the following hypothesis:

**H2: Firms with foreign directors have higher stock price synchronicity.**

### **Asset Valuation Model and Stock Price Synchronicity**

There are two alternative methods for recording fixed assets: the cost method or the revaluation method. According to the revaluation method fixed assets should be recorded on current market values. A revaluation surplus occurs when the carrying value exceeds the market value. A portion of this surplus must be transferred to retained earnings when the asset is disposed of.

In principle, the revaluation method attempts to improve the value relevance of financial reports. However, asset revaluation can be used for accounting and tax purposes. Asset revaluations that result in the increase of asset values will eventually lower reported earnings due to increased depreciation expense. On the other hand, asset revaluation methods that result in the decrease of asset values tend to increase earnings due to lower depreciation expense. Thus, managers can manipulate earnings simply by conducting asset revaluations (Seng & Su, 2010). A deliberate revaluation of assets will result in less quality of reported earnings which leads to higher stock price synchronicity.

The relationship between asset revaluation method and stock price synchronicity is stated in the following hypothesis.

**H3: Companies with a revaluation model exhibit higher stock price synchronicity.**

### **3. RESEARCH METHODS**

Sample is drawn from companies listed on the Indonesia Stock Exchange from the 2019-2022 period. Using a random sampling technique, 200 firm observations are collected from population. However, 72 observations are excluded from the sample due to missing data, leaving 128 observations available for the test of hypotheses. Data were hand collected by downloading the annual report from [www.idx.co.id](http://www.idx.co.id) or company websites.

#### **Variabel Measurement**

Stock price synchronicity is measured by estimating an expanded market model as suggested in Gul et al. (2010) that involves two steps.

The first step is to obtain the adjusted  $R^2$  from the following model.

$$Ret_{it} = \beta_0 + \beta_1 Mret_{t-2} + \beta_2 Mret_{t-1} + \beta_3 Mret_t + \beta_4 Mret_{t+1} + \beta_5 Mret_{t+2} + \varepsilon_t$$

Where:  $Ret_{it}$  = stock return of company  $i$  at time  $t$  (weekly);  $Mret_t$  = market return at time  $t$  (weekly). The next step is to transform  $R^2$  with the following procedure.

$$SYNCH = \log(\text{adj } R^2 / (1 - \text{adj } R^2))$$

A director's ability is measured by the percentage of directors who have experiences in similar positions in other companies (Chemmanur et al., 2015). Director nationality is a dummy variable that takes 1 if the company has foreign directors and 0 otherwise. The revaluation model is also a dummy variable that takes 1 if the company adopts revaluation model and 0 otherwise. Several control variables are included in the model to control for differences in company characteristics. These control variables are firm size, firm growth, profitability, and leverage. Previous studies have reported that these variables are significantly related to stock price synchronicity (Piotroski and Roulstone, 2004; Chan and Hameed, 2006). Firm size is the natural logarithm of total assets. Leverage is the ratio of total debt to total assets. Profitability is the ratio of net income to total assets (ROA). Firm growth is the ratio of total sales for the current year to total sales from the previous year.

#### **Research Model**

The following research model is employed for the test of hypotheses.

$$SYNCH_{it} = \beta_0 + \beta_1 ABLE_{it} + \beta_2 NATION_{it} + \beta_3 VALA_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \beta_6 ROA_{it} + \beta_7 GROW_{it} + \beta_8 YEAR + \varepsilon_{it}$$

Where Synch= Stock price synchronicity; Able = Director's Ability; Nation = Director's Nationality; Vala = Valuation Asset Model; Size = Company Size; Lev = Leverage; Roa = Return on Asset; Grow = Company Growth; Year = observation years.

### **4. RESULTS AND DISCUSSION**

#### **Descriptive Statistics**

Descriptive statistics are presented in Table 1. The mean for stock price synchronicity (SYNCH) is -0.5991. The original value of SYNCH is 0.255, suggesting that the ability of market return to explain individual returns is quite low. A lower stock price synchronicity suggests that the company's stock price absorbs more firm-specific information. The mean for asset valuation (VALA) is 0.20, suggesting that 20% of the sample-firms used the revaluation model. The mean for nationality (NATION) of directors is 0.44, indicating that 44% of the firm-samples have foreign national directors. The mean for directors' abilities (Able) is 0.64,

indicating that 64% of the Board of Directors have previous working experiences as directors in different companies. Meanwhile, the mean for control variables indicates that firm-samples were drawn from middle-size, high-leverage, profitable, and low growth companies.

**Table 1. Descriptive Statistics**

Variables	Mean	Minimum	Maximum	Dev. Std
SYNCH	-0.5991	-1.88	0.43	0.5016
ABLE	0.6365	0	1.00	0.3014
VALA	0.20	0	1	0.4040
NATION	0.4400	0	1	0.4980
SIZE	0.2881	0.01	0.91	0.2452
LEV	2.2421	0.01	14.09	3.8053
ROA	0.1107	-0.46	8.58	0.7608
GROW	-0.0138	-1.46	0.61	0.3074
YEAR	2.4766	1.00	4.00	1.0571

## Results

The results of regression analysis are presented in Table 2 below. While the valuation method (VALA) is significantly associated with stock price synchronicity, ability (ABLE) and nationality (NATION) of directors are not significantly associated with stock price synchronicity. Thus, only H3 is statistically supported.

**Table 2. Regression Results**

Variabel	Arah prediksi	Koefisien	<i>P-value</i>
NATION	-	-0.074	0.381
ABLE	-	0.187	0.188
VALA	-	0.323	0.006
SIZE	+/-	0.156	0.395
LEV	-	-0.040	0.013
ROA	-	-0.053	0.333
GROW	-	-0.286	0.037
YEAR	+/-	-0.020	0.729

## Discussion

Note that nationality (NATION) is a dummy variable that takes 1 if a company has foreign directors and 0 otherwise. As reported in Table 2, the nationality has a coefficient and p-value of -0.074 and 0.381 respectively. The results suggest that directors' nationalities have no significant effect on stock price synchronicity and H2 was not supported statistically.

Managing a company cannot rely on a single individual but requires collective effort involving a group of directors with diverse backgrounds. The company's policy direction and all strategic decisions are determined by the management team thereby a single director's opinion cannot become a joint decision if the other directors disagree. The use of a dummy variable to measure the influence of a foreign director has its drawback. As previously mentioned, companies with foreign directors are coded 1 regardless of the number of foreign directors. This measurement method has the disadvantage of assuming that the company's policy direction will be affected even if there is only one foreign director in the company. The impact of a foreign director on company policies may not be significant if other local directors do not support him. Therefore, further research using different measures is needed to assess the true impact of foreign directors. The findings documented in this study are in line with Pramesti & Nita (2022) that nationality diversity does not affect firm value.

The coefficient and p-value of directors' ability (ABLE) are 0.187 and 0.188 respectively. The findings suggest that director's ability has no significant effect on the stock price synchronicity and H1 is not supported. These findings suggest that the competence of directors acquired from having similar positions in other companies does not necessarily improve the quality of financial reports. In other words, extensive managerial experience does not guarantee a strong motivation to report a company's business activities more transparently. In fact, the opposite may occur. To maintain a reputation in the labor market, a director may be motivated to influence financial reporting to make it appear better and thus maintain a positive image in the business community.

The coefficient and p-value of the asset valuation (VALA) are 0.323 and 0.006 respectively. The findings suggest that the asset valuation method has a significant effect on the stock price synchronicity. In other words, the revaluation method increases the relevance of fixed assets to users of financial statements, thereby providing investors with the information they need to assess a company's prospects. Investors' use of the information contained in financial statements when making investment decisions increases stock price synchronicity. The findings are contradictory to Putri and Butar (2024).

## **5. CONCLUSIONS AND SUGGESTIONS**

This study examines the effects of director characteristics and fixed asset valuation methods on stock price synchronicity. Regression analysis suggests: 1) A director's ability does not affect stock price synchronicity. 2) A director's nationality does not affect stock price synchronicity. 3) Revaluation model significantly influences stock price synchronicity.

Future research should consider alternative measures of a director's nationality and fixed asset valuation. Nationality can be measured by the international experience of managers who have worked in international companies. Meanwhile, the fixed asset valuation model can be measured by the percentage of fixed asset groups that use the revaluation model. Furthermore, future research could also consider director busyness as another variable that might influence stock price synchronicity.

## **REFERENCE**

Abedifar, P., Bouslah, K., Zheng, Y. 2020. Stock Price Synchronicity and Price Informativeness: Evidence from a regulatory change in the U.S. Banking Industry. *Finance Research Letters* 40. <https://doi.org/10.1016/j.frl.2020.101678>.

- Putri, A. Butar, S. (2024). The Effect of Asset Valuation Method, Auditor Quality, Characteristics of the Board Commissioners and Audit Committee on Stock price Synchronicity. *Jurnal Akuntansi Bisnis* 22(1), 15–28.
- Giannetti, B. F; Agostinho, F. Almeida, D. H. (2015). A review of limitations of GDP and alternative indices to monitor human wellbeing and to manage eco-system functionality. *Journal of Cleaner Production* 87(1), 11–25.
- Butar Butar, S. (2019). Board of Commissioners Composition, Governance Committee, and Stock Price Synchronicity. *Jurnal Akuntansi dan Keuangan*, 21(1), 1–11.
- Chemmanur, T. J., Kong, L, Krishnan, K; Yu, Q. (2015). Top Management Human Capital, Inventor Mobility, and Corporate Innovation. *Journal of Financial and Quantitative Analysis*. Available at SSRN: <https://ssrn.com/abstract=2654416>
- Custodio, C., Ferreira, P. M. (2013). Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics*, 108(2), 471–492.
- Canyon M. J., Haß L. H., Vergauwe S., Zhang Z. (2019). Foreign experience and CEO compensation. *J. Corp. Finance* 57, 102–121.
- Daouk, H., Lee, C. M. C., & Ng, D. (2006). Capital market governance: How do security laws affect market performance? *Journal of Corporate Finance* 12(3), 560–593.
- Demerjian, P. R. (2018). Managerial Abilities and Earnings Quality. *The Accounting Review* 88-2, 463-498.
- Gul, F. A., Srinidhi, B. A. C. N. (2011). Does Board Gender Diversity Improve the Informativeness of Stock Prices? *Journal of Accounting and Economics* 51(3), 314–338.
- Fraz, A. & Hassan, A. 2017. Stock Price Synchronicity and Information Environment. *Business & Economic Review* 9 (3), 213-232.
- Geiger, M. A. & North, D. S. (2006). Does Hiring a New CFO Change Things? An Investigation of Changes in Discretionary Accruals. *Journal of the American Accounting Association* 81, 781–810.
- Hambrick D. C., Mason P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Acad. Manage. Rev.* 9 193–206. 10.5465/amr.1984.4277628
- Iskandar, A. Z. (2003). *Pasar Modal Teori dan Aplikasi (Edisi Pert)*. Penerbit Yayasan Pancur Siwah.
- Jalbert, T., Chan, C., Jalbert, M., & Landry, S. P. (2007). The Interrelationship of CEO Nationality with Financial Management, Firm Performance, And CEO Compensation. *Journal of Diversity Management* 2(2), 7–24.
- Jiang X., Xu N., Yuan Q. (2018). Mutual-Fund-Affiliated analysts and stock price synchronicity: Evidence from China. *J. Account. Audit. Finance* 33 435–460.
- Jogiyanto. (2008). *Teori Portofolio dan Analisis Investasi (Edisi Keli)*. BPFE.
- Malmendier, U & Tate, G. (2005). CEO Overconfidence and Corporate Investment. *Journal of Finance*, 60(6):2661. <https://doi.org/http://dx.doi.org/10.1111/j.1540-6261.2005.00813.x>
- Mackey, A. (2008). The effect of CEOs on firm performance. *Strategic Management Journal* 29(12): 135.

- Morck, R., Yeung, B., & Yu, W. (2000). The information content of stock markets: Why do emerging markets have synchronous stock price movements? *Journal of Financial Economics*, 58(1–2), 215–260.
- Iliev, P. & Roth, L. (2018). Learning from directors' foreign board experiences. *Journal of Corporate Finance* 51, 1-19.
- Piaskowska, D., & Trojanowski G. (2014). Twice as smart? The importance of managers' formative-years' international experience for their international orientation and foreign acquisition decisions. *J. Manag.* 25 40–57.
- Piotroski J. D., Roulstone D. T. (2004). The influence of analysts, institutional investors, and insiders on the incorporation of market, industry, and firm-specific information into stock prices. *Account. Rev.* 79, 1119–1151.
- Prasetya, E., & Hexana Sri Lastanti. (2023). Pengaruh Good Corporate Governance Dan Kebijakan Dividen Terhadap Nilai Perusahaan. *Jurnal Ekonomi Trisakti* 3(1), 1805–1814.
- Richardson, S., Sloan, R., Soliman, M., & Tuna, I., 2005. Accrual Reliabilities, Earnings Persistence and Stock Prices. *Journal of Accounting and Economics* 39, 437-485
- Roll, R. (1988). R2. *Journal of Finance* 43,541–566.
- Saputra, W. S. (2019). 2019\_Wendy Salim Saputra. Jurnal Riset Manajemen Dan Bisnis Fakultas Ekonomi *Uniat* 4(3), 503–510.
- Seng, D., & Su, J. (2010). Managerial Incentives Behind Fixed Asset Revaluations: Evidence from New Zealand Firms. *Department of Accountancy and Business Law*, 3(3), 2–33.
- Wei Jiang, Picheng Lee, A. A. (2008). The association between corporate governance and earnings quality: Further evidence using the GOV-Score. *Advances in Accounting*, 24(2):191-. <https://doi.org/10.1016/j.adiac.2008.08.011>.
- Gan, X. & Hu, Pei. 2023. Managerial abilities and stock price synchronicity. *Finance Research Letters* 56. <https://doi.org/10.1016/j.frl.2023.104124>.
- Yuan R., Wen W. (2018). Managerial foreign experience and corporate innovation. *J. Corp. Finance*. 48 752–770. 10.1016/j.jcorpfin.2017.12.015