

Hermanto, Yustinus Budi; Lusy, Lusy; Widyastuti, Maria

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Article

How Financial Performance and State-Owned Enterprise (SOE) Values Are Affected by Good Corporate Governance and Intellectual Capital Perspectives

Yustinus Budi Hermanto * , Lusy Lusy and Maria Widyastuti

Faculty of Economic and Business, Universitas Katolik Darma Cendika, Surabaya 60200, Indonesia; margaretha.hulda@ukdc.ac.id (L.L.); maria.widyastuti@ukdc.ac.id (M.W.)

* Correspondence: yustinus.budi@ukdc.ac.id

Abstract: The implementation of good governance and attention to resources will affect company survival. The purpose of this study was to examine the effect of good corporate governance and intellectual capital on financial performance and company value through statistical and econometrical tests on SOEs in Indonesia. This is quantitative research with state-owned enterprises (SOEs) listed on the Indonesia Stock Exchange. The total study population was 16 SOEs. This study used a saturated sample. Furthermore, the exogenous variables in this study were good corporate governance (GCG) and intellectual capital, whereas the endogenous variables were the company and financial performance. This study used the statistical analysis inferential because the variables used indicators and were formative. The results indicated that GCG and financial performance have positive effects on firm value, intellectual capital does not affect company value, and GCG and intellectual capital have positive effects on financial performance. The evaluation of indirect effects in this study showed that financial performance mediates the effect of intellectual capital and GCG on company value.

Keywords: good corporate governance (GCG); intellectual capital; financial performance; company value



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1. Introduction

‘Being concern’ indicates that a company, especially an SOE, will operate as a contributor of foreign exchange in terms of profit (Purba 2009). Several studies on going concern include Javaid and Javid (2018) and Tagesson and Öhman (2015). An entity can be considered as going concern if it can continue its operations and fulfil its obligations (Irfana 2012). Altman and McGough (1974) argue that going concern issues are divided into two: those related to finance and those related to operations. Continuity is an important factor that companies must maintain. Various efforts can be made so that investors do not doubt the sustainability of the company in terms of finances and operations (Altman and McGough 1974). One of the objectives of establishing a company is to maximize its value, which is reflected in its share price (Wiagustini 2010). Company value is the price a buyer is willing to pay if the company is sold (Husnan and Pudjiastuti 2006). If investors’ perceptions are positive, then the company’s value is high. This condition may increase the shareholders’ prosperity, assuming ceteris paribus conditions for the external environment. In this study, the company’s proxy value is Tobin’s Q because the Q ratio shows its opportunity to grow in the future through investment policies. The greater the value of Tobin’s Q, the higher the growth prospects are (Vo and Nguyen 2014). Another reason for choosing company value is that, based on Table 1, it can be inferred that 80% of SOEs’ values are below 1.

Table 1. SOE value based on Tobin's Q in 2015.

No	Name of SOE	Tobin's Q
1	Adhi Karya	0.68
2	Aneka Tambang	0.48
3	Bukit Asam	0.74
4	Cement Baturaja	0.89
5	State Gas	0.86
6	Garuda Indonesia	0.52
7	Indo Farma	0.59
8	Jasa Marga	0.98
9	Chemical Farma	1.35
10	Krakatau Steel	0.40
11	Development Housing	0.99
12	Semen Indonesia	1.60
13	Telkom Indonesia	1.61
14	Tin	0.58
15	Wijaya Karya	1.20
16	Waskita Karya	0.85
17	BNI	0.56
18	BRI	0.32
19	BTN	0.52
20	Mandiri	0.58
Σ Percentage above 1		20%

Source: SOE Financial Report.

To implement going concern as a corporate goal, the company's value becomes very important. A company is considered sustainable if it is: (a) able to create profits and investment; and (b) trustworthy and supported by customers, suppliers, the government, the community, the media, and non-governmental organizations (NGOs) ([Mardikanto 2014](#)). This study took SOEs as the research object because of a paradigm shift. Before 1998, SOEs were managed entirely by the government. However, since 2003, they have been managed by professionals. SOEs also support the Indonesian economy and contribute to foreign exchange from the profits. Especially due to the COVID-19 pandemic, the government needs a considerable amount of funds for mitigation efforts. Other than that, SOEs also empower micro, small, and medium enterprises (MSMEs) through fostering partners and building a strong economic structure through sound and ethical business practices ([Zulmawan 2019](#)).

The cause of company value fluctuation is the implementation of good corporate governance, intellectual capital, and financial performance. The GCG variable was chosen because good governance also increases stakeholders' confidence in a company. GCG ensures a clear separation of duties and responsibilities and the disclosure of both financial and non-financial information. Another background of this study is inconsistent results from previous research. [Ali et al. \(2018\)](#), [Halim et al. \(2017\)](#), and [Bohdanowicz \(2015\)](#) found that corporate governance influences company performance. Meanwhile, [Bashir et al. \(2018\)](#) found that corporate governance does not significantly influence company value.

Intellectual capital was chosen because good human resources lead to investor confidence in the company, increasing the company value ([Mouritsen et al. 2001](#)). There is also an increasing demand for transparency in the capital market. Adequate information about a company's intellectual capital helps investors to better assess the company's ability. Similarly, there are also inconsistencies in previous research. [Anifowose et al. \(2018\)](#) found that intellectual capital has a significant effect on company value. In contrast, however, [Sunarsih and Mendra \(2012\)](#) and [Badingatus Solikhah and Meiranto \(2010\)](#) did not find that intellectual capital affects the company's market value.

Research by [Chakrawal \(2006\)](#) on company's governance in India indicated that more companies understand that GCG is essential in an effective market to achieve the organization's goals. Their research reveals the importance and existence of accountability

in GCG. Furthermore, Olaison's research (2018) on Swedish companies' governance showed that corporate governance differences might result in more or less strict evaluation criteria when transplanted. [Sripada \(2019\)](#) studied aspects of human resources in relation to company governance in India. They point out the importance of revitalizing the functions of human resource management as an organ that shapes and directs the future of company governance. Several aspects which must be emphasized are compliance, compensation, competence and culture, by putting humans at the center of company governance. Sripada's results are in line with [Busrai's \(2019\)](#), who pointed out that company governance is not only the CEO's responsibility, but also that of other human resources in the company.

The purpose of this study was to assess financial performance and company value from the perspective of good corporate governance and intellectual capital. This research is expected to make a practical contribution so that companies can increase their value and financial performances, which can benefit the stakeholders. This research is also expected to provide empirical evidence regarding the factors affecting financial performance and corporate value from the theoretical perspective. It can also serve as a reference for further research to determine the factors influencing the company's value and financial performance.

Ultimately, this research aimed to determine the impact of companies that implement good governance and pay attention to human resources so that companies can grow sustainably or operated with going concern ([Purba 2009](#)). This research's novelty is that it is a modification of the research model that puts financial performance as a mediation variable ([Pertanian 2006](#)). In addition, the measurement indicators for GCG used five principles of transparency, accountability, responsibility, independence, and fairness (TARIF).

Literature Review

A company uses information to give positive or negative signals to the stakeholders (Signaling Theory). As outsiders, potential investors obtain information from company executives through annual reports ([Scott 1997](#)). According to Signaling Theory, investors can distinguish between high-value and low-value companies ([Brigham and Houston 2006](#)). In addition to Signaling Theory, this research also used the Reference Stakeholder Theory. Stakeholder Theory states that organizations voluntarily disclose information about their environmental, social, and intellectual performance that exceeds or is above the demands to meet the stakeholders' expectations ([Ulm 2017](#)).

Regulation of the Indonesian Minister of SOE, Number PER-01/MBU/2011, explains the five pillars of GCG, namely: (1) Transparency; (2) Accountability; (3) Responsibility; (4) Independence; and (5) Fairness, abbreviated as TARIF. 'Transparency' is openness in the decision-making process, the disclosure of information and materials related to the company (including the company's vision and mission), and employees' career path process. 'Accountability' is the responsibility of implementing the organization so that it can run effectively. 'Responsibility' is the company management's compliance with the laws and regulations and healthy corporate principles. 'Independence' is the professional management of the company. It should be without any conflict of interest and free from pressure from any party which is not in accordance with the laws and regulations as well as healthy corporate principles. 'Fairness' is the fairness and equity in fulfilling the rights of stakeholders arising under agreements, laws, and regulations.

The difference between market value and the book value of a company is called the intellectual capital value ([Ulm 2017](#)). A company that manages intellectual capital well will improve their market value. Likewise, if the capital market is efficient, investors will assign higher values to companies with greater intellectual capital ([Riahi-Belkaoui 2003](#)). Financial statements have limitations in explaining the value of the company. Thus, the source of economic value is no longer in the production of material goods, but in the creation of intellectual capital ([Wu et al. 2005](#)). Its activities are often related to employee development, organizational restructuring, and the development of marketing activities. The calculation of intellectual capital begins with the difference between output and input,

where output is the total income. In contrast, the input is the entire burden used by the company in addition to employee salary expenses. The measurement of intellectual capital in this study was taken from *Human Capital* (HC), *Structural Capital* (SC), *Capital Employed* (CA), and *Relational Capital* (RC).

The financial performance was assessed from the financial statements compared to the previous year; thus, the company's quality development could be measured. Measurements of financial performance are usually conducted through financial ratios. Financial ratios are useful for showing comparisons and investigations in financial information (Safitri 2015). The measurements of financial ratios used in this study were profitability ratios, namely, *Return on Assets* (ROA). Company value is the company's selling value, which is reflected in the stock market price or the price of shares traded on the capital market (Rachmawati and Triatmoko 2007). This study used the measurement of company value by Tobin's Q, namely, by comparing the ratio of the market value of shares with the book value of the company's equity (Wright and Smithers 2000).

Research on 150 companies registered with *Egyptian Listed Companies* in 2008 showed no significant relationship between corporate governance and company performance (Shahwan 2015). On the other hand, a study of 37 financial companies listed on the Bursa Malaysia, both before the revision of the corporate governance criteria in Malaysia and before the global financial crisis, showed that the company's performance affected Tobin's Q (Kallamu 2016). Hacyl's research is also supported by Lassoued (2018), who showed that corporate governance does affect the company's value. Lin et al. (2020) show the importance of SOEs in China's economic success in the past and for the future. Research from Abramov et al. (2017) showed that SOEs listed in Russia have much higher productivity compared to SOEs which are not listed. Manes-Rossi et al. (2021), in their research on SOEs in eight European countries (The Netherlands, Germany, Italy, Finland, Poland, England, Sweden and Austria), showed that government ownership and profitability have a positive influence on integrated reporting disclosure (IRD).

Research on information communication technology companies in Vietnam showed that intellectual capital, which is proxied by organizational capital, human capital, and social capital, positively affects company performance (Nhon et al. 2018). This research was also supported by Scafarto et al. 2016) and (Nkundabanyanga et al. 2014). However, different results were obtained from studies on pharmaceutical and textile companies in the CMIE (Center for Monitoring Indian Economy). These results indicate that intellectual capital does not affect the company's performance (Pal and Soriya 2012). Meanwhile, other research by Sucuahi and Cambarihan (2016) and Veronica (2013) showed that financial performance has a significant positive effect on company value, which was proxied by Tobin's Q.

Research on commercial banks in Jordan in 2005–2014 showed the results of corporate governance, which is proxied by the concentration of ownership (both government and foreign), and positively influences the bank's performance proxied by ROA and ROE (Jarbou et al. 2018). This research is in line with 29 Mai-listed firms and 65 listed SETs, which showed that corporate governance, proxied by the directors of the company and the composition of the board, affects the financial performance proxy by ROA (Laoworapong et al. 2015). Meanwhile, the research results on companies listed on the Bursa Malaysia show that the board of directors does not affect financial performance (Shukeri et al. 2012).

Research on 18 agribusiness industry companies in 2010–2014 showed a significant positive effect between relational capital and process capital on financial performance proxy by ROA, ROE, and ROI. However, Human Capital does not correlate with financial performance (Scafarto et al. 2016). A study by Nimtrakoon (2015) on 213 technology companies registered in Asian countries showed that intellectual capital has a positive effect on financial performance, especially ROA, and on market performance. Research on manufacturing companies listed on the Stock Exchange of Thailand in 2006–2009 showed that intellectual capital's results had a positive and significant effect on financial performance, which was proxied by ROE and ROA (Phusavat et al. 2011).

Based on the above data, the research hypotheses are:

- H₁.** GCG has a positive effect on the company value;
- H₂.** Intellectual capital has a positive effect on the company value;
- H₃.** Financial capital has a positive effect on the company value;
- H₄.** GCG has a positive effect on financial performance;
- H₅.** Intellectual capital has a positive effect on financial performance.

The research model is shown in Figure 1.

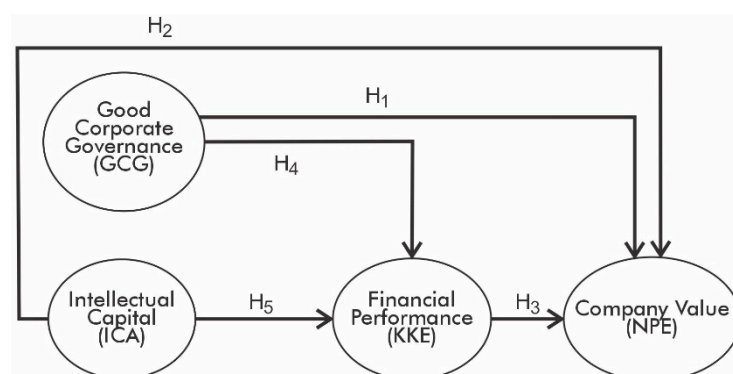


Figure 1. Research model.

2. Methodology

This study was designed to explain the influence of variables by testing hypotheses, i.e., explanatory research (Solimun and Fernandes 2017). This research was a quantitative study because it aimed to assess the hypotheses using statistical tests. The sample in this study was SOEs registered at BEI in 2012–2017, totaling 16 companies. This study's sampling technique was saturated because all available samples were taken (Sugiyono 2010). This study's exogenous variables were GCG and intellectual capital, whereas the endogenous variables were financial performance and firm value. GCG and intellectual capital are referred to as exogenous variables because they can be controlled by the internal company. GCG is defined as a system designed to direct the management of SOEs professionally, based on the principles of transparency, accountability, responsibility, independence, and fairness (TARIF), with the criteria mentioned in Appendix A (Effendi 2009). A calculation was performed, comparing reports that met the criteria compared to the number of report criteria required by SOE ministerial regulations. The GCG measurement indicators were:

Transparency (TRA) measured by = $(\sum \text{Reports that meet the Transparency criteria} : \sum \text{Transparency Report Criteria}) \times 100\%$.

Accountability (ACC) measured by = $(\sum \text{Reports that meet the Accountability criteria} : \sum \text{Accountability Report Criteria}) \times 100\%$.

Responsibility (RES) measured by = $(\sum \text{Reports that meet the Responsibility criteria} : \sum \text{Responsibility Report Criteria}) \times 100\%$.

Independency (IND) measured by = $(\sum \text{Reports that meet the Independence criteria} : \sum \text{Independent Report Criteria}) \times 100\%$.

Fairness (FAI) measured by = $(\sum \text{Reports that meet the Fairness criteria} : \sum \text{Fairness Report Criteria}) \times 100\%$.

The number of reports that met the tariff criteria is in Appendix A.

The definitions of operational variables in this study were valuable resources for competitive advantage that could contribute to SOEs' financial performance. Intellectual capital in this study was measured using the following indicators:

VA (value added): the difference between the output and the input. Output was obtained from total sales and other income, whereas the input was obtained from the total selling expenses and other expenses without including the employee salary expense.

CE (capital employed): available funds (equity, net income) or assets—liabilities.

Human capital efficiency (HCE): VA/HC (Pulic 1998).

HC (human capital): employee expenses in this study were salaries and wages, as well as employee training listed in the SOE.

Structural capital efficiency financial report (SCE): SC/VA (Pulic 1998).

SC: structural capital obtained from $VA - HC$.

Relational capital efficiency (RCE): VA/RC (Nazari and Herremans 2007).

RC: relational capital obtained from the marketing costs.

The operational definitions of financial performance variables in this study were the achievement of SOE performance reflected in the financial statements or the ROA (Kasmir 2011). In this study, operational definitions of variables of the company's value were the prospective investor's price if the SOEs were sold. The price was measured by Tobin's Q indicator, which is the value of SOEs assessed by investors and reflected in the price of the yearly stock. The Tobin's Q calculation formula is as follows (Wright and Smithers 2000):

$$Q = \frac{(EMV + D)}{(EBV + D)}$$

where Q is the value of Tobin's Q, EMV is the equity market value obtained from the closing price multiplied by the number of outstanding shares, EBV is the equity book value, and D is the book value of total debt (debt).

The data collection technique employed in this research was the use of internet access to download the annual report of an SOE company. The webpage was <http://www.idx.co.id> (accessed on 6 October 2020), whereas the data were analyzed using inferential statistical analysis. Inferential statistical analysis is used to test research models, assumptions, feasibility models, and hypothesis testing (Sugiyono 2018). In this study, inferential statistical analysis was performed in WrapPLS 6.0. software (Ghozali 2008).

The research model was divided into two:

Model 1: the effect of GCG, intellectual capital and financial performance on company value.

$$NPE = \beta_1 GCG + \beta_2 ICA + \beta_3 KKE + e \dots$$

Model 2: the effect of GCG and intellectual capital on financial performance.

$$KKE = \beta_4 GCG + \beta_5 ICA + e \dots$$

where KKE is the financial performance, GCG is good corporate governance, ICA is the intellectual capital, NPE is the company value, β is a constant, and e is the error.

Testing the direct influence hypothesis assessed whether there was a direct influence of exogenous variables on endogenous variables. Test criteria state that if the path coefficient has a p -value \leq level of significance ($\alpha = 5\%$) with a positive value, it means that there is a significant influence between the exogenous variables and endogenous variables.

Hypothesis testing of indirect effects was carried out to test whether there was an indirect effect of exogenous variables on endogenous variables through mediating variables. The test criteria state that if the indirect effect has a p -value \leq level of significance ($\alpha = 5\%$), it is stated to have a significant influence (Ghozali and Latan 2017).

3. Results

3.1. Evaluation Results of Measurement Model (Outer Model)

This latent variable indicator is a variable with a formative indicator model because it is characterized by composite variables and is usually found in economics (Solimun and Fernandes 2017). Evaluation of the outer model for formative constructs can be performed by considering the significance of weight. The indicator meets the criteria indicator reliability if it has a weight value significant at $p < 0.05$. The outer model test results in Table 2 show p -values < 0.05 .

Table 2. Results of the measurement model evaluation—outer model.

Variable	Indicator	Weight	p-Value
GCG	Transparency	0.302	<0.001
GCG	Accountability	0.257	0.004
GCG	Responsibility	0.274	0.002
GCG	Independence	0.205	0.018
GCG	Fairness	0.231	0.009
ICA	Structural Capital Efficiency	0.333	<0.001
ICA	Human Capital Efficiency	0.221	0.012
ICA	Relational Capital Efficiency	−0.336	<0.001
ICA	Capital Employed Efficiency	0.343	<0.001
KKE	Return On Assets	1.000	<0.001
NPE	Tobin's Q	1.000	<0.001

Source: data processing.

3.2. Results of Structural Model Evaluation (Inner Model)

The results of the structural model evaluation in this study used the feasibility of the model (goodness of fit). If there are one or two indicators, model fit and quality indices, this model can be used (Solimun and Fernandes 2017), as shown in Table 3.

Table 3. Results of the feasibility model—goodness of fit.

Model Fit and Quality Indices	Criteria Fit	Results	Information
Average Path Coefficient (APC)	$p < 0.05$	$p < 0.001$	Fit
Average R-Squared (ARS)	$p < 0.05$	$p = 0.006$	Fit
Average Adjusted R-squared (AARS)	$p < 0.05$	$p = 0.011$	Fit
Average Block VIF (AVIF)	Acceptable if ≤ 5 , ideality ≤ 3.3	1.215	Fit
Average Full Collinearity VIF (AFVIF)	Acceptable if ≤ 5 , ideality ≤ 3.3	1.237	Fit
Tenenhaus GoF (GoF)	Small ≥ 0.1 , Medium ≥ 0.25 , Large ≥ 0.36	0.424	Fit
Simpson's Paradox Ratio (SPR)	Acceptable if ≥ 0.7 , Ideality = 1	0.8	Fit
R-Squared Contribution Ratio (RSCR)	Acceptable if ≥ 0.9 , Ideality = 1	0.915	Fit
Statistical Suppression Ratio (SSR)	Acceptable if ≥ 0.7	1	Fit
Non-linear Bivariate Causality Direction Ratio (NLBCDR)	Acceptable if ≥ 0.7	0.5	Not Fit

Source: data processing.

Table 3 shows that only one criterion does not fit, namely, the Non-Linear Bivariate Causality Direction. Therefore, it can be concluded that the model meets the goodness of fit requirements.

3.3. Results of Hypothesis Testing

Hypothesis testing is used to test whether there is an indirect effect of exogenous variables on endogenous variables. If the coefficient path has a p -value \leq level of significance ($\alpha = 5\%$), it can be declared that there is a significant influence of exogenous variables on endogenous variables. The results of hypothesis testing are presented in Table 4.

Table 4. Results of direct hypothesis tests.

Exogenous	Endogenous	Path Coefficient	p-Value	Description
GCG	NPE	0.419	<0.001	Accepted
ICA	NPE	0.116	0.123	Rejected
KKE	NPE	0.228	0.010	Received
GCG	KKE	0.299	0.001	Received
ICA	KKE	0.423	<0.001	Accepted

Source: data processed.

The effect of GCG on company value (NPE) shows a path coefficient of 0.419 with a p -value < 0.001 . The test results show that the path coefficient has a p -value \leq level of

significance ($\alpha = 5\%$). This result means that there is a significant influence of good corporate governance on the corporate value in a positive direction. Thus, the hypothesis stating that GCG has a significant effect on firm value (H_1) is accepted. This finding is in line with research by Siagian et al. (2013), Rashid and Islam (2013), and Eberhart (2012). The intellectual capital (ICA) effect on firm value produced a path coefficient of 0.116 with a p -value of 0.123. The test results show that the path coefficient has a p -value $>$ level of significance ($\alpha = 5\%$). This result means that there is no significant effect of intellectual capital on firm value. Therefore, the hypothesis which states that intellectual capital has a significant effect on firm value (H_2) can be rejected. This result is in line with Hamdan's (2018) research, which shows that intellectual capital does not affect market performance. This result is supported by Carlucci et al. (2014) and Britto et al. (2014). The influence of financial performance on firm value produces a path coefficient of 0.228 with a p -value of 0.010. The test results show that the path coefficient has p -value \leq level of significance ($\alpha = 5\%$). This means that there is a significant influence on financial performance on firm value in a positive direction. Therefore, the hypothesis that financial performance significantly influences the value of the company (H_3) is accepted.

The influence of GCG on financial performance (KKE) produces a path coefficient of 0.299 with a p -value of $= 0.001$. The test results show that the path coefficient has a p -value \leq level of significance ($\alpha = 5\%$). This result means that there is a significant influence of GCG on financial performance in a positive direction. Therefore, the hypothesis that the GCG effect on financial performance (H_4) is accepted, according to the research of Adedeji et al. (2020), Fidanowski et al. (2014), and (Alipour 2012). The effect of ICA on financial performance produces a path coefficient of 0.423 with a p -value of < 0.001 . The test results show that the path coefficient has a p -value \leq level of significance ($\alpha = 5\%$). This result means that there is a significantly positive influence of intellectual capital on financial performance. Thus, the hypothesis stating that intellectual capital has a significant effect on financial performance (H_5) is accepted, in line with the research of Ozkan et al. (2017) and Janošević et al. (2013).

3.4. Results of the Evaluation of Indirect Effects

An evaluation of indirect effects was performed to test whether there is an indirect effect of exogenous variables on endogenous variables through mediating variables. Results of the evaluation of indirect influence are summarized in Table 5.

Table 5. Evaluation of indirect influence.

Exogenous	Mediation	Endogenous	Indirect	p -Value	Description
GCG	KKE	NPE	0.068	0.01	Accepted
ICA	KKE	NPE	0.097	0.04	Accepted

Source: data processed.

Based on the test results listed in Table 5, it can be observed that the effect of GCG on firm value through financial performance produces a path coefficient of 0.068 with a p -value of 0.01. The test results show that the path coefficient has a p -value \leq level of significance ($\alpha = 5\%$). Thus, the hypothesis stating that financial performance mediates the effect of GCG on firm value is accepted. This model has a partial mediation effect (Ghozali and Latan 2017). Intellectual capital's effect on firm value through financial performance produces a path coefficient of 0.097 with a p -value of 0.04. The test results show that the path coefficient has a p -value \leq level of significance ($\alpha = 5\%$). In Table 5, it is known that the indirect effect of ICA has a significant effect on firm value. On the other hand, the direct effect is not significant, i.e., there is a significant influence of intellectual capital on firm value through financial performance. Thus, the hypothesis that financial performance mediates the effect of intellectual capital on firm value is accepted. This model has a full mediation effect (Ghozali and Latan 2017).

Based on the table above, the structural model formed is:

$$KKE = 0.3 \text{ GCG} + 0.42 \text{ ICA} \quad (1)$$

$$\text{NPE} = 0.42 \text{ GCG} + 0.116 \text{ ICA} + 0.23 \text{ KKE} \quad (2)$$

For more details, statistical calculations are summarized in Figure 2.

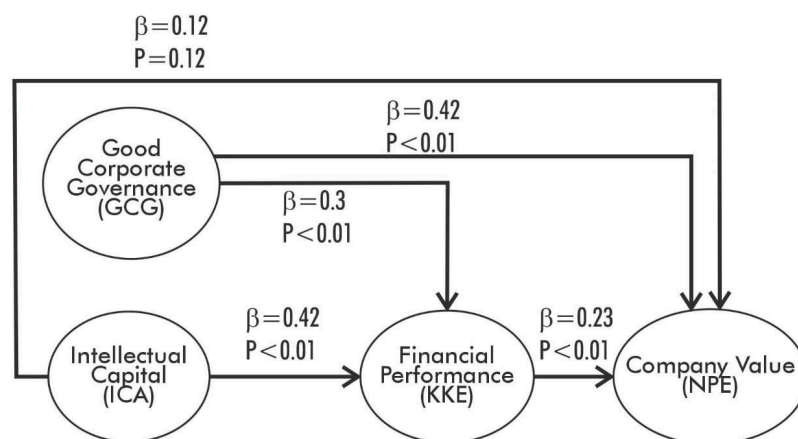


Figure 2. The Effect of GCG and intellectual capital on financial performance and company value.

4. Conclusions

This study proved several things. Firstly, GCG has a positive effect on financial performance and company value. This finding is in line with research by [Adedeji et al. \(2020\)](#), [Mishra and Kapil \(2018\)](#), and [Sircar et al. 2015](#)). The novelty which differentiates this research from previous studies is that GCG uses a measure of transparency, accountability, responsibility, independence, and fairness (TARIF). Secondly, intellectual capital does not affect company value. This finding is in line with the research of [Hamdan \(2018\)](#), [Britto et al. \(2014\)](#), and [Carlucci et al. 2014](#)). The third finding is that based on financial performance, both GCG and intellectual capital affect the company value. This discovery is a novelty in the research model by using financial performance as a mediating variable. The fourth finding shows that intellectual capital has a positive effect on financial performance, which is in line with research by [Chowdhury et al. \(2018\)](#), [Ghosh and Maji \(2015\)](#), and [Deep and Narwal \(2014\)](#). This research was conducted on state-owned companies listed on the Indonesia Stock Exchange from 2012 to 2017, in the fields of telecommunications, transportation, cement production, construction, the gas sector, the pharmaceutical sector, steel production, building planning and construction, tin and tin mining, and coal. This study did not use SOEs in the financial sector because they have different characteristics; thus, the calculations of their financial performance are also different. The implications of this research is that SOE managers have more of a moral responsibility in implementing GCG and paying attention to intellectual capital. The existence of GCG implemented by SOE managers makes their performance more open and accountable to interested parties. This research was limited by using only internal influences. Therefore, it is hoped that subsequent studies will examine external factors such as interest rates, market growth, and dividend policy. Further research could also be conducted on non-SOEs to provide an overview of the application of government regulations relating to corporate governance. Another suggestion for future research is to use other financial performance indicators, such as the return on equity (ROE) and economic value added (EVA). This study also did not perform sensitivity tests. These are analyses to determine the effects which will occur if the objects and variables change ([Gittinger 1986](#)). Therefore, if the study were to be conducted on a different sample, it will not necessarily produce the same findings.

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Appendix A

The 16 criteria for the Transparency Report:

1. Reports on financial information and results of operations of the company, including comparative analysis with the previous year, as well as the underlying reasons if there is a decline;
2. The company's objectives are disclosed publicly on the company's website;
3. Report on shared ownership structure, including voting rights;
4. Reports on rights in decision-making, special voting rights, and the right to participate in making trading decisions and modifying joint assets;
5. Company expansion report accompanied by open procedures;
6. Report on the composition of the board of commissioners and their income, and allowances such as stock options;
7. Disclosures related to risk management in the future (interest rate risks, derivative transaction risks, dependence on certain commodities).
8. Reports on future CSR programs (at least one year into the future);
9. Procedures for recruitment, career path, remuneration, and rewards and punishments for employees;
10. Clear procedures for purchasing goods, including auctions;
11. Corporate governance structure and policies disclosed on the company's website;
12. Report of the company's internal auditors;
13. Non-financial performance reports;
14. Independent auditor's report;
15. Disclosure of CSR on the company's website;
16. Open disclosure of the whistle-blower procedure which can be read by all internal and external parties.

The 6 criteria for the Accountability Report:

1. Performance accountability report per department;
2. Board of director's accountability report;
3. Board of commissioner's accountability report;
4. The independent commissioner's accountability report;
5. Independent auditor's report accompanied by the responsibilities of the management;
6. Audit committee accountability report.

The 12 criteria for the Responsibility Report:

1. Reports related to the implementation of the GMS in accordance with the provisions of the Ministry of SOEs;
2. Report on the duties and responsibilities of the board of directors according to the regulations of the Minister of SOEs;
3. Regulation on commissioners in accordance with the BUMN law;
4. Company introduction program report according to the regulations of the Minister of SOEs;
5. Regulation on the audit committee according to the BUMN law;
6. Report on the accountability of the risk management monitoring committee in accordance with the regulations of the Minister of State-Owned Enterprises;

7. Report on the accountability of the nomination and remuneration committee in accordance with the regulations of the Minister of State-Owned Enterprises;
8. Accountability report of the corporate secretary according to the BUMN law.
9. Managerial accountability report in managing the company effectively and efficiently;
10. Accountability report on the realization of the program implemented and the reasons if it is not realized.
11. Accountability report regarding the policies taken by the company, including governance and the environment;
12. Follow-up accountability reports related to whistle-blower reports received by the company, including the frequency of meetings according to the provisions.

The 5 criteria for the Independence Report:

1. There are clear duties and responsibilities in all work units;
2. The existence of an audit report including findings and recommendations from the internal auditor;
3. There is a review procedure from the audit committee on matters that require the attention of the commissioners and the supervisory board, as well as the duties of the commissioners and other supervisory boards;
4. Report on the provisions of the audit committee in accordance with the regulations of the Minister of State-Owned Enterprises;
5. Reports if there are violations related to conflicts of interest.

The 5 criteria for the Fairness Report:

1. There is an explanation regarding voting rights, including foreign investors and minority shareholders, and whether there has been a change in voting rights;
2. There are clear procedures regarding voting, including disclosing the costs involved when submitting votes;
3. There is clarity regarding company policies through the GMS, including the percentage of votes;
4. Insider trading reports;
5. Reports related to payable transactions, including changes in debt policy, investment, as well as company expansion.

References

- Abramov, Alexander, Alexander Radygin, and Maria Chernova. 2017. State-owned enterprises in the Russian market: Ownership structure and their role in the economy. *Russian Journal of Economics, Science Direct* 3: 1–23. [\[CrossRef\]](#)
- Adedeji, Babatunji Samuel, Tze San Ong, Md Uzir Hossain Uzir, and Abu Bakar Abdul Hamid. 2020. Corporate governance and performance of medium-sized firms in Nigeria: Does sustainability initiative matter? *Corporate Governance: The International Journal of Business in Society* 20: 401–27. [\[CrossRef\]](#)
- Ali, Awais, Fu Qiang, and Sadia Ashraf. 2018. Regional dynamics of ownership structure and their impact on firm performance and firm valuation. *Review of International Business and Strategy* 28: 129–47. [\[CrossRef\]](#)
- Alipour, Mohammad. 2012. The effect of intellectual capital on firm performance: An investigation of Iran insurance companies. *Measuring Business Excellence* 16: 53–66. [\[CrossRef\]](#)
- Altman, E. I., and T. P. McGough. 1974. Evaluation of a company as a going concern. *Journal of Accountancy* 138: 50–57.
- Anifowose, Mutalib, Hafiz Majdi Abdul Rashid, Hairul Azlan Annuar, and Hassan Ibrahim. 2018. Intellectual capital efficiency and corporate book value: Evidence from Nigerian economy. *Journal of Intellectual Capital* 19: 644–68. [\[CrossRef\]](#)
- Bashir, Uzma, Ummara Fatima, Sundas Sohail, Farhat Rasul, and Rabia Mehboob. 2018. Internal Corporate Governance and Financial Performance Nexus; a Case of Banks of Pakistan. *Journal of Finance and Accounting* 6: 11–17. [\[CrossRef\]](#)
- Bohdanowicz, Leszek. 2015. The impact of ownership structure on supervisory board size and diversity: Evidence from the Polish two-tier board model. *Procedia Economics and Finance* 23: 1420–25. [\[CrossRef\]](#)
- Busrai, A. 2019. Is Corporate Governance an HR Responsibility? *NHRD Network Journal* 12: 311–16. [\[CrossRef\]](#)
- Chakrawal, A. K. 2006. Corporate Governance and Accountability. *Asia Pacific Business Review* 2: 88–97. [\[CrossRef\]](#)
- Wu, Ming-Chin Chen, Shu-Ju Cheng, and Yuhchang Hwang. 2005. An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *Journal of Intellectual Capital* 6: 157–76.
- Brigham, Eugene F., and Joel F. Houston. 2006. *Fundamentals of Financial Management: Dasar-Dasar Manajemen Keuangan*. Jakarta: Salemba Empat.

- Britto, Daniel Pitelli, Eliane Monetti, and Joao da Rocha Lima Jr. 2014. Intellectual capital intangible intensive firms: The case of Brazilian real estate companies. *Journal of Intellectual Capital* 15: 333–48. [\[CrossRef\]](#)
- Carlucci, D., D. Celenza, and F. Rossi. 2014. Intellectual capital and performance of listed companies: Empirical evidence from Italy. *Measuring Business Excellence* 18: 22–35.
- Chowdhury, Leena Afroz Mostofa, Tarek Rana, Mahmuda Akter, and Mahfuzul Hoque. 2018. Impact of intellectual capital on financial performance: Evidence from the Bangladeshi textile sector. *Journal of Accounting & Organizational Change* 14: 429–54.
- Deep, R., and K. P. Narwal. 2014. Intellectual Capital and its Association with Financial Performance: A Study of Indian Textile Sector. *International Journal of Management and Business Research* 4: 43–54.
- Eberhart, Robert. 2012. Corporate governance systems and firm value: Empirical evidence from Japan's natural experiment. *Journal of Asia Business Studies* 6: 176–96. [\[CrossRef\]](#)
- Effendi, Muh Arief. 2009. *The Power of Good Corporate Governance: Teori dan Implementasi*. Jakarta: Salemba Empat.
- Fidanoski, Filip, Kiril Simeonovski, and Vesna Mateska. 2014. The impact of board diversity on corporate performance: New evidence from Southeast Europe. *Corporate Governance in the US and Global Settings* 17: 81–123.
- Ghosh, Shantanu Kumar, and Santi Gopal Maji. 2015. Empirical Validity of Value Added Intellectual Coefficient Model in Indian Knowledge-based Sector. *Global Business Review* 16: 947–62. [\[CrossRef\]](#)
- Ghozali, I. 2008. *Structural Equation Modeling: Metode Alternatif Dengan Partial Least Square (PLS)*. Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam, and Hengky Latan. 2017. *Partial Least Squares: Konsep, Metode dan Aplikasi Menggunakan Program Warp PLS 5.0*, 3rd ed. Semarang: Badan Penerbit Universitas Diponegoro.
- Gittinger, J. P. 1986. *Analisis Ekonomi Proyek Pertanian (Terjemahan)*. Jakarta: Universitas Indonesia Press.
- Halim, E. H., G. Mustika, R. N. Sari, R. Anugerah, and Z. Mohd-Sanusi. 2017. Corporate governance practices and financial performance: The mediating effect of risk management committee at manufacturing firms. *Journal of International Studies* 10: 272–89. [\[CrossRef\]](#)
- Hamdan, A. 2018. Intellectual capital and firm performance. *International Journal of Islamic and Middle Eastern Finance and Management*. [\[CrossRef\]](#)
- Husnan, Suad, and Enny Pudjiastuti. 2006. *Dasar-Dasar Manajemen Keuangan Edisi Kelima*. Yogyakarta: UPP AMP YKPN.
- Irfana, Muhammad Jauhan. 2012. Analisis Pengaruh Debt Default, Kualitas Audit, Opinion Shopping Dan Kepemilikan Perusahaan Terhadap Penerimaan Opini Audit Going Concern. *Diponegoro Journal of Accounting* 1: 656–65.
- Janošević, Stevo, Vladimir Dženopoljac, and Nick Bontis. 2013. Intellectual capital and financial performance in Serbia. *Knowledge and Process Management* 20: 1–11. [\[CrossRef\]](#)
- Jarbou, Loay, Jamal Abu-Serdaneh, and Muhannad Atmeh. 2018. Ownership Structure and Conservatism's Impact on Jordanian Bank's Financial Performance. *The Journal of Developing Areas* 52: 183–97. [\[CrossRef\]](#)
- Javaid, Muhammad Irfan, and Attiya Yasmin Javid. 2018. Efficacy of going concern prediction model for creditor oriented regime via liquidation. *Journal of Applied Accounting Research* 19: 552–73. [\[CrossRef\]](#)
- Kallamu, Basiru Salisu. 2016. Impact of the Revised Malaysian Code on Corporate Governance on Audit *Global Journal of Management and Business Research* 16: 21–30.
- Kasmir, S. E. 2011. *Analisis Laporan Keuangan*. Jakarta: PT. Raja Grafindo Persada.
- Laoworapong, Mongkon, Somchai Supattarakul, and Fredric Willian Swierczek. 2015. Corporate governance, board effectiveness, and performance of Thai listed firms. *AU Journal of Management* 13: 25–40.
- Lassoued, Mongi. 2018. Corporate governance and financial stability in Islamic banking. *Managerial Finance* 44: 524–39. [\[CrossRef\]](#)
- Lin, Karen Jingrong, Xiaoyan Lu, Junsheng Zhang, and Ying Zheng. 2020. State-owned enterprises in China: A review of 40 years of research and practice. *China Journal of Accounting Research Elsevier* 13: 31–55. [\[CrossRef\]](#)
- Manes-Rossi, Francesca, Giuseppe Nicolò, Adriana Tiron Tudor, and Gianluca Zanellato. 2021. Drivers of Integrated Reporting by State-Owned Enterprises in Europe: A Longitudinal Analysis. *Meditari Accountancy Research, Emerald Publishing Limited* 29: 586–616. [\[CrossRef\]](#)
- Mardikanto, Totok. 2014. *CSR (Corporate Social Responsibility) (Tanggungjawab Sosial Korporasi)*. Bandung: Alfabeta.
- Mishra, Rakesh Kumar, and Sheeba Kapil. 2018. Effect of board characteristics on firm value: Evidence from India. *South Asian Journal of Business Studies* 7: 41–72. [\[CrossRef\]](#)
- Mouritsen, Jan, Heine T. Larsen, and Per N. D. Bukh. 2001. Intellectual capital and the 'capable firm': Narrating, visualising and numbering for managing knowledge. *Accounting, Organizations and Society* 26: 735–62. [\[CrossRef\]](#)
- Nazari, J. A., and I. M. Herremans. 2007. Extended VAIC model: Measuring intellectual capital components. *Journal of Intellectual Capital*. [\[CrossRef\]](#)
- Nhon, Hoang Thanh, Bui Quang Thong, and Nguyen Van Phuong. 2018. The impact of intellectual capital dimensions on Vietnamese information communication technology firm performance: A mediation analysis of human and social capital. *Academy of Strategic Management Journal* 17: 1–15.
- Nimtrakoon, Sirinuch. 2015. The relationship between intellectual capital, firms' market value and financial performance. *Journal of Intellectual Capital* 16: 587–618. [\[CrossRef\]](#)

- Nkundabanyanga, Stephen Korutaro, Joseph M. Ntayi, Augustine Ahiauzu, and Samuel K. Sejjaaka. 2014. Intellectual capital in Ugandan service firms as mediator of board governance and firm performance. *African Journal of Economic and Management Studies* 5: 300–40. [\[CrossRef\]](#)
- Ozkan, Nasif, Sinan Cakan, and Murad Kayacan. 2017. Intellectual capital and financial performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review* 17: 190–98. [\[CrossRef\]](#)
- Pal, Karam, and Sushila Soriya. 2012. IC performance of Indian pharmaceutical and textile industry. *Journal of Intellectual Capital* 13: 120–37. [\[CrossRef\]](#)
- Pertanian, D. T. I. 2006. Masalah Kebaruan Dalam Penelitian Teknologi Industri Pertanian The Novelty Issues In The Agroindustrial Research. *Work* 400: 140.
- Phusavat, Kongkiti, Narongsak Comepa, Agnieszka Sitko-Lutek, and Keng-Boon Ooi. 2011. Interrelationships between intellectual capital and performance. *Industrial Management & Data Systems* 111: 810–29.
- Pulic, Ante. 1998. Measuring the performance of intellectual potential in knowledge economy. Paper Presented at the 2nd McMaster Word Congress on Measuring and Managing Intellectual Capital by the Austrian Team for Intellectual Potential, Vienna, Austria, 2 October 1998; pp. 1–20.
- Purba, M. P. 2009. *Asumsi Going Concern: Suatu Tinjauan Terhadap Dampak Krisis Keuangan*. Yogyakarta: Graha Ilmu.
- Rachmawati, Andri, and Hanung Triatmoko. 2007. Analisis faktor-faktor yang mempengaruhi kualitas laba dan nilai perusahaan. *Simposium Nasional Akuntansi X* 10: 1–26.
- Rashid, Kashif, and Sardar M. N. Islam. 2013. Corporate governance, complementarities and the value of a firm in an emerging market: The effect of market imperfections. *Corporate Governance (Bingley)* 13: 70–87. [\[CrossRef\]](#)
- Riahi-Belkaoui, Ahmed. 2003. Intellectual capital and firm performance of US multinational firms. *Journal of Intellectual Capital* 4: 215–26. [\[CrossRef\]](#)
- Safitri, Dian Anggraeni. 2015. Sustainability Report Terhadap Kinerja Keuangan Dan Pasar. *Jurnal Ilmu & Riset Akuntansi* 4: 1–15.
- Scafarto, Vincenzo, Federica Ricci, and Francesco Scafarto. 2016. Intellectual capital and firm performance in the global agribusiness industry: The moderating role of human capital. *Journal of Intellectual Capital* 17: 530–52. [\[CrossRef\]](#)
- Scott, William Robert. 1997. *Financial Accounting Theory*. Upper Saddle River: Prentice Hall, vol. 343.
- Shahwan, Tamer Mohamed. 2015. The effects of corporate governance on financial performance and financial distress: Evidence from Egypt. *Corporate Governance* 15: 641–62. [\[CrossRef\]](#)
- Shukeri, Siti Norwahida, Ong Wei Shin, and Mohd Shahidan Shaari. 2012. Does board of director's characteristics affect firm performance? Evidence from Malaysian public listed companies. *International Business Research* 5: 120. [\[CrossRef\]](#)
- Siagian, Ferdinand, Sylvia V. Siregar, and Yan Rahadian. 2013. Corporate governance, reporting quality, and firm value: Evidence from Indonesia. *Journal of Accounting in Emerging Economies* 3: 4–20. [\[CrossRef\]](#)
- Sircar, S., R. Agrawal, S. K. Shanthi, K. S. Reddy, and N. K. Srivastava. 2015. Does governance structure have any effect on firm performance during the financial crisis. *Journal of Strategy and Management* 8: 368–83.
- Badingatus Solikhah, S. E., and Wahyu Meiranto. 2010. Implikasi Intellectual Capital terhadap Financial Performance, Growth dan Market Value; Studi Empiris dengan Pendekatan Simplitic Specification. In *Makalah Disampaikan Dalam Simposium Nasional Akuntansi XIII*. Purwokerto: Universitas Jendral Soedirman Purwokerto.
- Solimun, Adji Achmad Rinaldo, and Nurjannah Fernandes. 2017. *Metode Statistika Multivariat Pemodelan Persamaan Struktural (SEM) Pendekatan WarpPLS*. Malang: Universitas Brawijaya Press.
- Sripada, Chandrasekhar. 2019. Executive Education in India: Now and in the Future. *NHRD Network Journal* 12: 64–67. [\[CrossRef\]](#)
- Sucuahi, William, and Jay Mark Cambarihan. 2016. Influence of profitability to the firm value of diversified companies in the Philippines. *Accounting and Finance Research* 5: 149–53. [\[CrossRef\]](#)
- Sugiyono. 2010. *Metode Penelitian Bisnis (Cetakan ke-15)*. Bandung: Penerbit Alfabeta.
- Sugiyono. 2018. *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Alfabeta: Penerbit CV.
- Sunarsih, N. M., and N. P. Y. Mendra. 2012. Pengaruh modal intelektual terhadap nilai perusahaan dengan kinerja keuangan sebagai variabel intervening pada perusahaan yang terdaftar di Bursa Efek Indonesia. *Simposium Nasional Akuntansi XV* 1: 1–10.
- Tagesson, Torbjörn, and Peter Öhman. 2015. To be or not to be—Auditors' ability to signal going concern problems. *Journal of Accounting & Organizational Change* 11: 175–92.
- Ulum, Ihyaul. 2017. *Intellectual Capital (Model Pengukuran, Framework Pengungkapan, dan Kinerja Organisasi)*. Malang: UMM Press.
- Veronica, Theodora Martina. 2013. Pengaruh good corporate governance, corporate social responsibility & kinerja keuangan terhadap nilai perusahaan. *Jurnal Dinamika Manajemen* 4: 1–11.
- Vo, D. H., and T. M. Nguyen. 2014. The impact of corporate governance on firm performance: Empirical study in Vietnam. *International Journal of Economics and Finance* 6: 1–13. [\[CrossRef\]](#)
- Wiagustini, N. L. P. 2010. *Dasar-Dasar Manajemen Keuangan*. Denpasar: Cetakan Pertama.
- Wright, Stephen, and Andrew Smithers. 2000. *Valuing Wall Street: Protecting Wealth in Turbulent Markets*. Hoboken: McGraw-Hill.
- Zulmawan, W. 2019. *Legal Risk Management BUMN*. Jakarta: Kencana.