

# **The Influence Of Firm Strategy and Organizational Resilience To Technology Orientation And its Implication To Company Performance of Coal Mining Company In Indonesia**

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**ABSTRACT:** *This study aims to investigate the influence of Firm Strategy and Organizational Resilience to Technology Orientation, and its implication to Company Performance of coal mining company in Indonesia. The methodology of this research is an explanatory study by testing seven hypotheses. The population of this research was conducted on 5 coal mining companies and 6 coal mining contractor companies. From estimated populations is 64,111 staffs with a total sample of 308 respondents. Data were collected using questionnaire and technical data analysis using SEM (Structural Equation Modeling). The results of this study found that: (1) Firm Strategy affects Technology Orientation positively and significantly; (2) Organizational Resilience affects Technology Orientation positively and significantly; (3) Firm Strategy affects Company Performance positively and significantly; (4) Organizational Resilience affects Company Performance positively and significantly; (5) Technology Orientation affects Company Performance positively and significantly; (6) Firm Strategy and Organizational Resilience simultaneously affect Technology Orientation positively and significantly; (7) Firm Strategy, Technology Orientation, and Organizational Resilience simultaneously affect Company Performance positively and significantly. Technology Orientation as a mediating variable improves the relationship between Firm Strategy and Organizational Resilience with Company Performance. From the test of 7 hypotheses were proved entirely accepted. Technology Orientation as a mediating variable increases the influence of Firm Strategy and Organizational Resilience relationship to Company Performance. Organizational Resilience as an independent variable is the most powerful influence of the Company Performance.*

**KEYWORDS:** *Firm Strategy, Organizational Resilience, Technology Orientation, Company Performance.*

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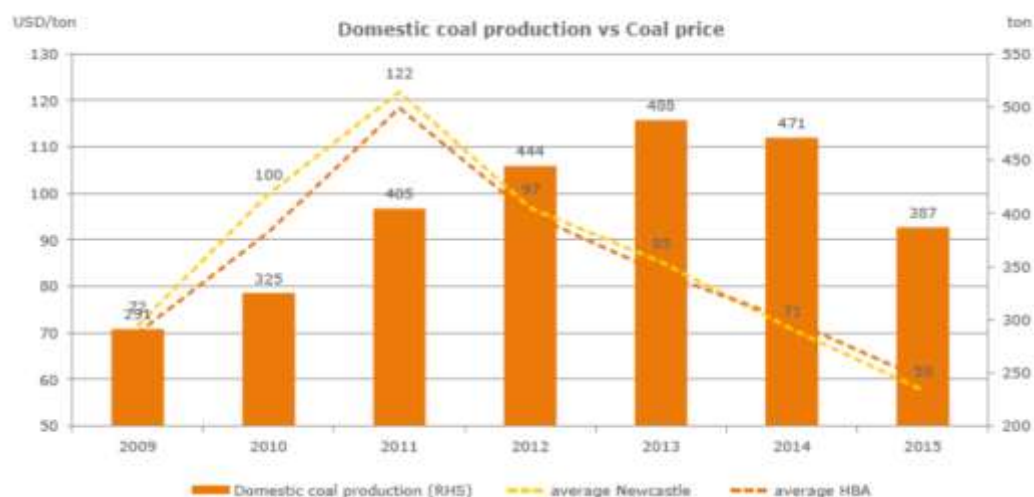
## **I. INTRODUCTION**

Human life is closely related to the provision of energy sources. The global crisis in fluctuations in the price of oil, natural gas and coal followed by increasing demand for this energy, led to a rethinking of corporate strategy, especially for the exploitation and utilization of resources (Diana., Sorin., Mirela, Laura, Sabina, 2015). One of the objectives of any industrial policy is to use comparative and competitive advantages due to the appropriate natural resources, experience and employment capabilities in the mining sector and the exploitation of these resources, which require the full exploitation of discretion, Diana, et al., 2015). Adam Smith's principle of absolute advantage and David Ricardo's principle of comparative advantage is, in general, based on technological excellence in producing commodities (Gupta, 2015). Absolute advantage refers to high or absolute productivity, or lower cost in producing commodities (Porter, 1990). A business strategy can be described as how a company decides to compete in the market and achieve sustainable competitive advantage in an industry (Karami, 2012). In recent years since the writing of this research, study based on the company's strategic orientation has increased the interest of experts due to its important role in organizational performance, many companies have achieved superior performance by following technological orientation (Chen, Y., Tang, G., Jin, J., Xie, Q., & Li, J. 2014). Strategic orientation can be defined as the principles that lead and influence the company's activities in interaction with markets through a set of values and beliefs that create important and appropriate behaviors for sustainable superior performance (Yarahmadi, H., Karami, A. & Siwan, M 2015). Porter (1980) describes firm strategy with how a company pursues competitive advantage in the chosen marketplace. There are three firm strategies used, namely: low cost, differentiation, and Focus. According to Porter (1980), a company may choose to pursue one of two types of competitive advantage, either through low cost rather than competition or with differentiation, where products and services are valued by customers at higher prices. Porter (1985) claims that companies should only choose one of three or risk that the business will waste valuable resources.

The political, social and cultural changes that have taken place in the Indonesian economy over the last two and a half decades have led to radical changes, shifting from a locally based economy to meeting local

needs into a free-market orientation, essentially there is a need to ensure competitiveness, both domestically and in the region of Asia or even in the world. In this context, companies engaged in mining are forced to ensure their viability, to manage resources efficiently, to increase flexibility in accordance with demand and supply, so that the true value and quality are to ensure the competitive advantage in the market it operates (Gupta, 2015). Continued growth in energy demand, high production costs, limited reserves and the efficiency of other fossil fuels – oil and gas – according to projections made by Energy Agency International, it is clear that about a quarter of worldwide primary energy needs will be covered by coal (IEA, 2012). In this research, we would like to examine the mining industry that plays a very important role in Indonesia, especially the role of service companies in coal mining or called contractor companies. Of the total coal production of Indonesia around 350 - 450 million tons 80% done by contractor companies. Changes in environmental conditions that are very significant can lead to the implementation of appropriate strategies that must be done by contractor companies. Changes in coal price conditions led to a change of strategy by companies engaged in mining. As for some changes in the current mining environment, the price of coal commodities (Price) fluctuates, changes in government regulations (Government Regulation) which increasingly provide certainty of supervision, change the demands of the community (Community Demand) in place of mining operations. Below obtained data of domestic coal production of Indonesia compared with the price of coal.

Graph 1. Indonesia's Domestic Coal Production and Prices



Source: Macro Economic Bank Mandiri Presentation 2009-2015.

From the above graph, commodity prices are decreasing significantly, while coal production versus market prices is very counter-productive with prices in the market, which in essence there is an environment that is so turbulent until 2016. There is a big problem facing coal miners in Indonesia, meaning coal mining contractors are required to find the right strategy to maintain positive company performance, and organizational resilience that can even achieve sustainable competitive advantage. Under turbulent conditions, firms must be able to demonstrate improvements made by finding and applying appropriate technologies, in order to increase the availability of (usable) utility levels, and productivity levels. Companies must continue to maintain and focus on operational quality with a performance-focused management culture.

## II. LITERATURE REVIEW

### Company Performance

Company Performance or corporate performance is an important issue for organizations because it will have a significant effect on the benefits of its members (Othman, Arshad, Aris, Arif, 2015). Auguinis (2005:2) defines company performance as a continuous process of identifying, measuring and developing performance in organizations by linking each individual's performance and objectives to the organization's overall mission and goals. Performance management is a process whereby individual objectives are set in alignment of organizational goals, individuals set their goals and expectations from each individual are clearly communicated and appropriate rewards will be given for their performance (Ponnu & Hassan, 2015). Company performance in the field or operational performance is measured by non-financial elements (Harold & Darlene, 2004; Rajendar & Jun Ma, 2005). Although there is a number of non-financial indicators, financial indicators are the best known and with such quantitative properties, generating wealth, profits and return on investment. According to Carvalho, Ribeiro, Cirani, Cintra (2016); Bruni, (2008); Ross, Westerfield and Jaffe (2009), the

most important and more used indicators by firms are those related to the cost of capital invested in return on investment (ROI), EBITDA, return on equity (ROE) and return on assets (ROA). Financial performance is an indicator of the ability of the company to be able to complete all its operational obligations as well as the settlement of its obligations. In this study we used the concept of Gupta (2015) in measuring the performance of coal contracting companies.

### **Firm Strategy**

The firm strategy researchers have empirically examined that firms strive to reduce threats and gain competitive advantage (Paik & Zhu, 2016). Corporate strategy is the pattern of decisions in a company that determines and reveals its objectives, purposes, or goals, produces the principal policies and plans for achieving those goals, and defines the range of business the company is to pursue, the kind of economic and human organization it is or intends to be, and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities (Andrews, 1980). While Tregoe & Zimmerman (1980:17) defines strategy as the framework which guides those choices that determine the nature and direction of an organization. Michael Porter, in his competitive strategy book (Porter, 1986: xvi), defines firm strategy as a combination of the ends (goals) for which the firm is striving and the means (policies) by which it is seeking to get there. In essence, Porter argues that strategy is about competitive positioning, about differentiating companies in the eyes of customers, low cost, focused programs, adding value through a mix of activities - activities that are different from those used by competing companies. In this research, Firm Strategy concept from Porter (1996) is used, differentiation, low cost, and Focus program in analyzing the relationship between one independent variable with variable dependent company performance and technology orientation variable as intervening variable.

### **Organisational Resilience**

Organizations operate in an increasingly competitive and dynamic context, and their success is a reflection not only of their ability to survive, but also from their ability to continue to adapt in challenging environments (Lampel, Bhalla, & Jha, 2014). Emerging empirical evidence suggests that resilience organizations, more resilient and more capable of recovering from and even developing in times of great crisis, have placed research on organizational resilience at the center of attention over the last decade (Linnenluecke, 2015). Organizational Resilience is defined as the ability and capacity of an organization to withstand unpredictable changes, discontinuities and risks caused by the environment (Carvalho. et al., 2016: 58). Organizations that adapt proactively before changes occur in their environment can be called resilience (Oliveira & Werther, 2013). Luthans (2002: 695) defines organizational resilience as capacity that can be developed for rebound or rebound from adversity, conflict, and failure or even positive events, progress, and increased responsibility. While Vieira (2006) argues, organizational resilience is a company that has the ability to adapt to change, adjust the company's goals with the trend, and able to generate profit. According to Langvardt (2007), organizational resilience is a company that is able to create structures that provide security and stability during the period of change. In scenarios characterized by rapid technological changes and economic equations that require the mobilization of change, there is a demand for flexibility and adaptation of structures to economic, social, cultural, technological and political contingencies (Barlach, Limongi-France & Malvezzi, 2008). While Woods (2006) states that resilience makes us think differently, extend the concept of risk, integrated systems, flexibility and tolerance. Scheffran, Marble and Sow (2012) corroborate this position by stating that enterprise adaptation is a system adjustment in response to actual or expected effects that can disrupt access to profitable opportunities. Dalziel and McManus (2004) defines resilience as a union of two components: vulnerability and adaptive capacity. The purpose of this study was to measure and compare organizational resilience. benchmark resilience measurements can be used to identify strengths and weaknesses of resilience and help organizations to understand how their resilience is now so they can develop strategies to improve company performance. These measurements were tested on a random sample of several coal contracting companies in Indonesia, and a Structural Equation Model (SEM) analysis was used to develop the instrument, as part of the development, indicator and organizational resilience model proposed.

### **Technology Orientation**

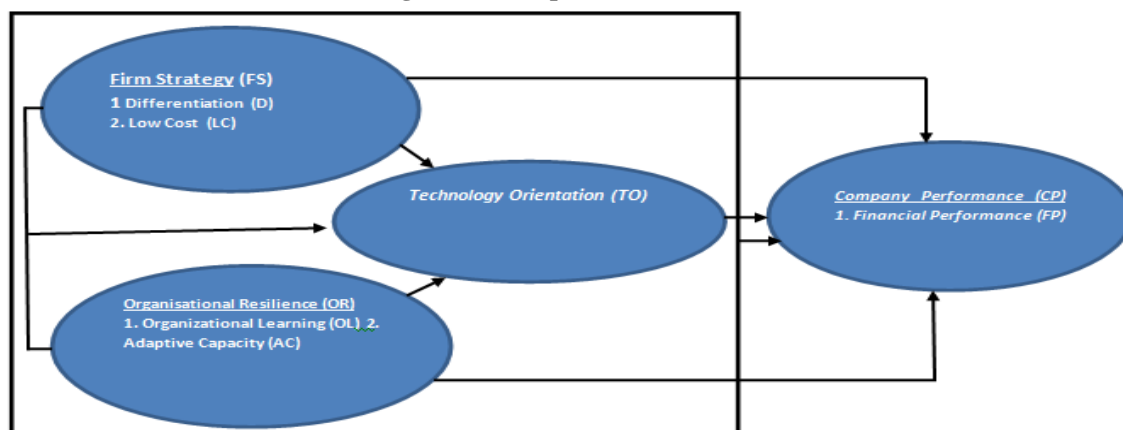
The Importance of Technology Orientation is concluded by Prahalad and Hamel (1994) and Grinstein (2008) through their findings that the best long-term success is achieved through new technological solutions, new products and services. There are many companies that focus on Technology Orientation (Gatignon & Xuereb, 1997) getting quite successful performance results. Gatignon and Xuereb (1997) conclude that technology orientation reflects the company's philosophy of how to apply and develop new technologies or products to interact with markets, through active actions to develop and incorporate new technologies in its

products. Therefore, technology orientation guides the company's efforts to achieve high tech capabilities from their competitors (Hakala&Kohtamäki, 2011).

A large number of resources have been and continue to be invested in Technology Orientation (Ali, R., Leifu, G., Rehman, R. 2016), in the hope that this investment made on the basis of expectation will produce good results in the future. Technology Orientation states that consumers prefer products and services with technological advantages (Gatignon&Xuereb, 1997). According to this Technology Orientation philosophy, companies devote their resources to research and development (R & D), actively acquire new technology and use advanced production technology (Voss and Voss, 2000). Thus, a technology-oriented company is one of the company's advantages with the ability and willingness to gain substantial technological background and use it in the development of new products (Gatignon and Xuereb, 1997). Due to their strong commitment to R & D and application of the latest technology, technology-oriented companies can build new technical solutions and offer new and sophisticated products to meet customer needs (Ali, et al, 2016). Therefore, companies with technology orientation have a competitive advantage in terms of technology leadership and offer differentiated products, which can lead to superior performance (Prahalad& Hamel, 1994). Strategic management literature also shows that Technology Orientation has a positive relationship with new products (Gatignon&Xuereb, 1997) and firm performance (Voss & Voss, 2000). When the market environment is characterized by rapid technological advances, the value and impact of pre-existing technologies deteriorates very quickly (Srinivasan, Lilien, and Rangaswamy, 2002). Companies should allocate more resources for technology development, experiment with new technologies and manage uncertainty through innovation. Otherwise, they will be eliminated from the market because the technology they use is getting worn out (Ali, et al., 2016). This research uses the concept of Gatignon and Xuereb (1997) in analyzing whether there is a positive relationship between independent variable Firm Strategy and technology orientation with organizational resilience as dependent variable, also analyzing whether there is organizational resilience influence as intervening variable that mediate positive relationship between firm strategy and technology orientation with organizational performance as a dependent variable.

### Conceptual framework

Figure 1. Conceptual Framework.



H<sub>1</sub>: Firm Strategy influences Technology Orientation.

H<sub>2</sub>: Firm Strategy influences Company Performance.

H<sub>3</sub>: Organizational Resilience influences Technology Orientation.

H<sub>4</sub>: Organizational Resilience influences Company Performance.

H<sub>5</sub>: Technology Orientation influences Company Performance.

H<sub>6</sub>: Firm Strategy and Organizational Resilience simultaneously influence Technology Orientation.

H<sub>7</sub>: Firm Strategy, Organizational Resilience and Technology Orientation simultaneously influence Company Performance.

### III. METHODOLOGY

This research is a hypothesis testing research, which aims to explain the nature of a particular relationship, or to determine the differences between groups, or the independence of two or more factors in one situation (Sekaran&Bougie, 2016). Hypothesis testing will test the influence of Firm Strategy, Technology Orientation, and Organizational Resilience to Company Performance variables. This study was conducted in noncontrived settings, i.e. this study was conducted without the involvement of researchers in the normal activity of research subjects (Sekaran&Bougie, 2016). Based on the strategy in conducting the research, this research is

a research survey, which is using information gathering technique by arranging questions and statements submitted to the respondents (Sekaran&Bougie, 2016). Based on the analytical unit, this study uses individual analytics units, which collect data from each individual (Sekaran&Bougie, 2016). Based on the time horizon, this study is a cross sectional study, which is done with data once only collected in daily, weekly or monthly periods in an effort to answer questions and statements from researchers (Sekaran&Bougie, 2016). The period in this study took place in January - February 2018.

**Population& Sample**

Population is the generalization of objects or subjects that have certain qualities and characteristics that have been determined by researchers to be analyzed and after that made the conclusion (Sekaran & Bougie, 2016). In this study the population used are employees who work in mining companies and coal mining kontakctor domiciled in Indonesia.The questionnaire was distributed as many as 600 copies and the return was 308 respondents.

**IV. RESULTS**

**Table 1.Working on Division**

| Division              | Frequency  | Percentage |
|-----------------------|------------|------------|
| Business Excellence   | 4          | 1.3        |
| Bussiness Development | 8          | 2.6        |
| Engineering           | 31         | 10.1       |
| Finance               | 15         | 4.9        |
| Human Resources       | 12         | 3.9        |
| Externl Relations     | 4          | 1.3        |
| Operation             | 96         | 31.2       |
| Others                | 82         | 26.6       |
| Plant                 | 34         | 11         |
| Safety, Health, & Env | 13         | 4.2        |
| Strategic             | 9          | 2.9        |
| <b>Total</b>          | <b>308</b> | <b>100</b> |

Source: Data processed using SPSS 22.0

**Table 2. Gender**

| Gender       | Frequency  | Percentage |
|--------------|------------|------------|
| Male         | 274        | 89         |
| Female       | 34         | 11         |
| <b>Total</b> | <b>308</b> | <b>100</b> |

Source: Data processed using SPSS 22.0

**Table 3. Age**

| Age              | Frequency  | Percentage |
|------------------|------------|------------|
| < 35 year old    | 127        | 41.2       |
| 35 - 45 year old | 115        | 37.3       |
| > 45 year old    | 66         | 21.4       |
| <b>Total</b>     | <b>308</b> | <b>100</b> |

Source: Data processed using SPSS 22.0

**Table 4. Formal education**

| Formal Education | Frequency  | Percentage |
|------------------|------------|------------|
| High School      | 45         | 14.6       |
| Bachelor         | 48         | 15.6       |
| Undergraduate    | 178        | 57.8       |
| Master           | 37         | 12.0       |
| <b>Total</b>     | <b>308</b> | <b>100</b> |

Source: Data processed using SPSS 22.0

**Table 5. Position**

| Position        | Frequency  | Percentage   |
|-----------------|------------|--------------|
| Director        | 9          | 2.9          |
| General Manager | 25         | 8.1          |
| Manager         | 60         | 19.5         |
| Staff           | 101        | 32.8         |
| Superintendent  | 113        | 36.7         |
| <b>Total</b>    | <b>308</b> | <b>100.0</b> |

Source: Data processed using SPSS 22.0

The data analysis result of perceptions from respondents to firm strategy variable, using SPSS 24, through 13 questions obtained as presented in Table 6 below,

**Table 6. Respondents' perceptions of Firm Strategy**

| Code  | Description  | Mean | SD    |
|-------|--|------|-------|
| FS1   | Compared to competing companies, our company has better product innovation capability                | 3.99 | 0.799 |
| FS2   | Compared to competing companies, our company has a stronger company image                            | 3.94 | 0.839 |
| FS3   | Compared to competing companies, our company has better professional mining services                 | 3.95 | 0.773 |
| FS4   | Compared to competing companies, our company has better infrastructure facilities                    | 3.88 | 0.796 |
| FS5   | Compared to competing companies, our company has good equipment maintenance capability               | 3.8  | 0.801 |
| FS6   | Compared to competing companies, our company has a better working methodology                        | 3.87 | 0.774 |
| FS7   | Compared to competing companies, our company does not have a better innovation                       | 3.97 | 0.782 |
| FS8   | Compared to competing companies, our company has a lower ratio of operating cost to operating income | 3.86 | 0.775 |
| FS9   | Compared to competing companies, our company has a lower cost of mining                              | 3.85 | 0.765 |
| FS10  | Compared to competing companies, our company has a lower fixed cost                                  | 3.72 | 0.727 |
| FS11  | Compared to competing companies, our company has a higher total cost                                 | 3.67 | 0.753 |
| FS12  | Compared to competing companies, our company has a lower development project cost                    | 3.64 | 0.76  |
| FS13  | Compared to competing companies, our company provides lower equipment rental rate                    | 3.62 | 0.74  |
| Total |  | 3.83 |       |

Source: Data processed using SPSS 22.0

Table 6 above shows that the average data variable firm strategy has an average score of 3.83 is in the category of good/ agree. This shows that generally respondents perceive firm strategy well / agree. The perception of respondents in perceiving the highest firm strategy is in the statement of FS1 that is compared to competitor companies, our company has better product innovation capability; with an average score of 3.99. While the lowest average score perceived by respondents is on FS13 statement that is compared to a competitor company, our company provides lower equipment rental rate; with an average score of 3.62.

**Table 7. Respondents' perceptions of organizational resilience**

| Code  | Description  | Mean | SD    |
|-------|--|------|-------|
| OR1   | Our employees are enabled to move between divisions / departments within the organization to gain new experiences.   | 4.03 | 0.715 |
| OR2   | Our employees often overcome obstacles by finding the best way out of the problems that arise.   | 4.07 | 0.674 |
| OR3   | In our company, it is a top priority to equip employees with the necessary information and knowledge so that they are able to overcome challenges in their work. | 4.06 | 0.718 |
| OR4   | When necessary our company can make important decisions quickly.   | 4.03 | 0.665 |
| OR5   | I believe that management has good leadership when companies face difficulties.  | 4.19 | 0.704 |
| OR6   | Our company continuously invites its employees to give their best.   | 4.36 | 0.707 |
| OR7   | If our company encounters problems, then we use them for material evaluation rather than just talking about the success we've done.                              | 4.16 | 0.681 |
| OR8   | Seeing how important the company is to its stakeholders, I believe that the company already has a decent plan.   | 4.17 | 0.705 |
| OR9   | Our employees can usually set aside time from their regular work if necessary to engage in emergency activities.   | 4.01 | 0.746 |
| OR10  | In our company, we respond to early warnings that arise from both internal and external before escalating into crisis.   | 3.95 | 0.72  |
| OR11  | Our company managed to take lessons from past experience and apply them to future projects.  | 4.12 | 0.683 |
| OR12  | Our company makes a very clear priority scale to do during the crisis.   | 4.15 | 0.741 |
| Total |  | 4.11 |       |

Source: Data processed using SPSS 22.0

Table 7 above shows that the average variable data organizational resilience has an average score of 4.11 is in the category very well / strongly agree. This shows that respondents generally perceive organizational resilience very well. The perception of respondents in perceiving organizational resilience is the highest in the OR6 statement that our company continuously invites its employees to provide the best; with an average of 4.36. While the lowest average score perceived by respondents is on the OR10 statement that is in our company, we respond to early warnings emerging both internally and externally before escalating into crisis; with an average score of 3.95.

**Table 8. Respondents' perceptions of Technology Orientation**

| Code  | Description   | Mean | SD    |
|-------|---|------|-------|
| TO1   | Our company always eager to try new technology.                             | 4.35 | 0.709 |
| TO2   | Compared to competing companies, our company often uses new methods.        | 4.11 | 0.701 |
| TO3   | Classification of technology in our company is process optimisation.        | 4.14 | 0.675 |
| TO4   | The ranking of equipment automation in our company is the best.             | 3.69 | 0.727 |
| TO5   | Our company uses cutting-edge technology for production.                    | 3.9  | 0.691 |
| TO6   | Our company invests capital for new machines.                               | 4.14 | 0.726 |
| TO7   | Our company undertakes continuous research and product development efforts. | 4    | 0.726 |
| TO8   | Our company often introduces new product launches to customers.             | 3.97 | 0.752 |
| Total |   | 4.04 |       |

Source: Data processed using SPSS 22.0

Table 8 above shows that the average data variable technology orientation has niliai average score of 4.04 that is in the category very well / strongly agree. This shows that respondents generally perceive technology orientation very well / strongly agree. The perception of respondents in perceiving the highest technology orientation is on the TO1 statement that our company always try new technology; with an average score of 4.35. While the lowest average score perceived by the respondents is on the TO4 statement that the equipment automation rating in our company is the best; with an average score of 3.69.

**Table 9. Respondents' perceptions of Company Performance**

| Code  | Description  | Mean | SD    |
|-------|--|------|-------|
| CP1   | The performance of the company is increasing rapidly in view of the company's investments. | 4.19 | 0.746 |
| CP2   | The company has innovations that create added value.                                       | 4.21 | 0.682 |
| CP3   | Performance of the company stagnated.  | 4.03 | 0.73  |
| CP4   | Company value is very high compared to the value of other companies.                       | 4    | 0.713 |
| CP5   | The company has added value in the market.   | 4.12 | 0.696 |
| Total |  | 4.11 |       |

Source: Data processed using SPSS 22.0

Table 9 above shows that the average variable data Company Performance has average score of 4.11 is in the category very well / strongly agree. This shows that respondents generally perceive company performance very well / strongly agree. The perception of respondents in perceiving the company's highest performance is the CP2 statement that the company has innovations that create added value; with an average score of 4.21. While the lowest average score perceived by the respondents is on CP4 statement that the company value is very high compared to the value of other companies; with an average score of 4.

The results of the validity test for each instrument of this research variables can be seen in Table 10, 11, 12 and 13 below.

**Table 10. Result Test of Firm Strategy's validity.**

| Questionnaire Item | Validity Value | Validity Criterion | Validity Test |
|--------------------|----------------|--------------------|---------------|
| FS1                | 0.756          | > 0.3              | Valid         |
| FS2                | 0.656          | > 0.3              | Valid         |
| FS3                | 0.726          | > 0.3              | Valid         |
| FS4                | 0.656          | > 0.3              | Valid         |
| FS5                | 0.730          | > 0.3              | Valid         |
| FS6                | 0.748          | > 0.3              | Valid         |
| FS7                | 0.693          | > 0.3              | Valid         |
| FS8                | 0.725          | > 0.3              | Valid         |
| FS9                | 0.732          | > 0.3              | Valid         |
| FS10               | 0.741          | > 0.3              | Valid         |
| FS11               | 0.669          | > 0.3              | Valid         |
| FS12               | 0.650          | > 0.3              | Valid         |
| FS13               | 0.678          | > 0.3              | Valid         |

Source: Data processed using SPSS 22.0

**Table 11. Result Test of Organizational Resilience's validity.**

| Questionnaire Item | Validity Value | Validity Criterion | Validity Test |
|--------------------|----------------|--------------------|---------------|
| OR1                | 0.633          | > 0.3              | Valid         |
| OR2                | 0.731          | > 0.3              | Valid         |
| OR3                | 0.766          | > 0.3              | Valid         |
| OR4                | 0.799          | > 0.3              | Valid         |
| OR5                | 0.782          | > 0.3              | Valid         |
| OR6                | 0.811          | > 0.3              | Valid         |
| OR7                | 0.834          | > 0.3              | Valid         |
| OR8                | 0.797          | > 0.3              | Valid         |
| OR9                | 0.766          | > 0.3              | Valid         |
| OR10               | 0.723          | > 0.3              | Valid         |
| OR11               | 0.792          | > 0.3              | Valid         |
| OR12               | 0.794          | > 0.3              | Valid         |

Source: Data processed using SPSS 22.0

**Table 12. Result Test of Technology Orientation's validity.**

| Questionnaire Item | Validity Value | Validity Criterion | Validity Test |
|--------------------|----------------|--------------------|---------------|
| TO1                | 0.753          | > 0.3              | Valid         |
| TO2                | 0.783          | > 0.3              | Valid         |
| TO3                | 0.776          | > 0.3              | Valid         |
| TO4                | 0.702          | > 0.3              | Valid         |
| TO5                | 0.739          | > 0.3              | Valid         |
| TO6                | 0.776          | > 0.3              | Valid         |
| TO7                | 0.749          | > 0.3              | Valid         |
| TO8                | 0.761          | > 0.3              | Valid         |

Source: Data processed using SPSS 22.0

**Table 13. Result Test of Company Performance's validity.**

| Questionnaire Item | Validity Value | Validity Criterion | Validity Test |
|--------------------|----------------|--------------------|---------------|
| CP1                | 0.797          | > 0.3              | Valid         |
| CP2                | 0.790          | > 0.3              | Valid         |
| CP3                | 0.788          | > 0.3              | Valid         |
| CP4                | 0.799          | > 0.3              | Valid         |
| CP5                | 0.786          | > 0.3              | Valid         |

Source: Data processed using SPSS 22.0

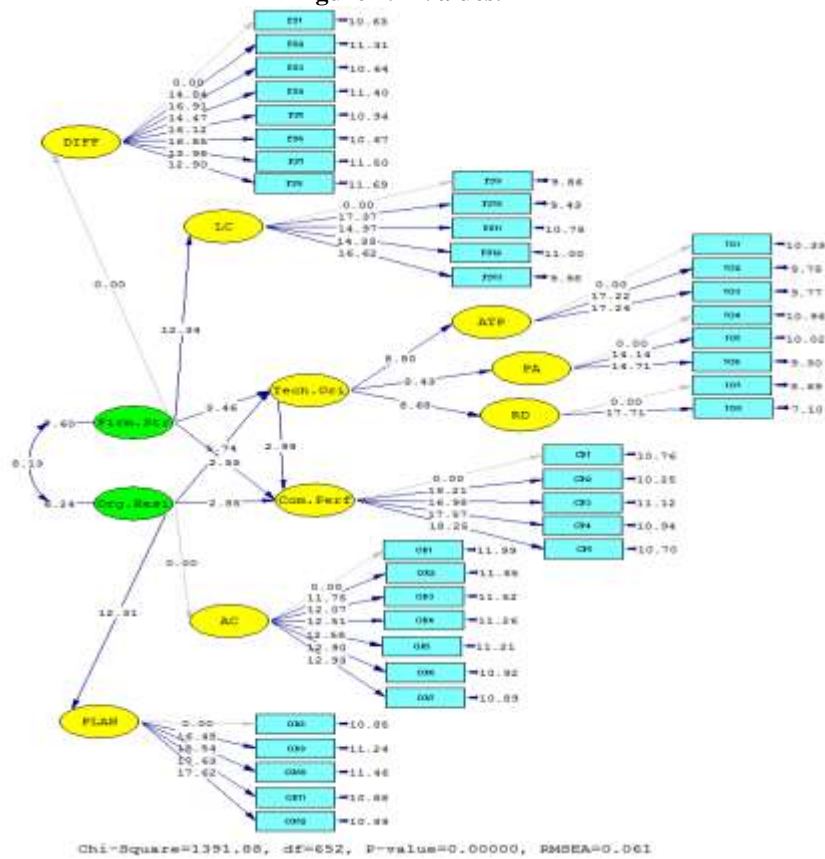
**Table 14. Reliability Test Results of Variable.**

| NO | Variable                  | Cronbach's Alpha | Reliability Test |
|----|---------------------------|------------------|------------------|
| 1  | Firm Strategy             | 0.937            | Reliable         |
| 2  | Organizational Resilience | 0.952            | Reliable         |
| 3  | Technology Orientation    | 0.929            | Reliable         |
| 4  | Company Performance       | 0.919            | Reliable         |

Source: Data processed using SPSS 22.0



Figure 2.T Values.



Source: data processed with LISREL 8.8

The t-values model image shows a complete model trajectory diagram with figures showing the t-value of each estimated figure.

Table 15. Structural Equations Direct and Indirect Effects

| Structural Equations Direct & Indirect  |        |        |        |         |
|---|--------|--------|--------|---------|
| <i>Direct</i>   |        |        |        |         |
| Tech.Ori = 0.58*Firm.Str + 1.37*Org.Resi, Errorvar <sub>u</sub> = 0.11, R <sup>2</sup> = 0.89 |        |        |        |         |
|   | (0.17) | (0.24) |        |         |
|   | 3.46   | 5.74   |        |         |
| Com.Perf = 0.41*Tech.Ori + 0.41*Firm.Str + 0.69*Org.Resi, Errorvar=0.10, R <sup>2</sup> =0.90 |        |        |        |         |
|   | (0.14) | (0.16) | (0.24) | (0.020) |
|   | 2.99   | 2.55   | 2.85   | 5.15    |
| <i>Indirect</i>   |        |        |        |         |
| Indirect Effects of X on ETA  |        |        |        |         |
| Firm.StrOrg.Resi  |        |        |        |         |
|   | -----  | -----  |        |         |
| Tech.Ori  | - -    | - -    |        |         |
| Com.Perf  | 0.24   | 0.57   |        |         |
|   | (0.09) | (0.21) |        |         |
|   | 2.55   | 2.70   |        |         |

Source: Data processed with LISREL 8.8

V. CONCLUSION

Table 16. Hypotheses testing results

| Hypothesis | Description   | Conclusion |
|------------|---|------------|
| H1         | Firm Strategy influences Technology Orientation   | Accepted   |
| H2         | Firm Strategy influences Company Performance  | Accepted   |
| H3         | Organizational Resilience influences Technology Orientation   | Accepted   |
| H4         | Organizational Resilience influences Company Performance  | Accepted   |
| H5         | Technology Orientation influences Company Performance   | Accepted   |
| H6         | Firm Strategy, and Organizational Resilience simultaneously influence Technology Orientation                      | Accepted   |
| H7         | Firm Strategy, Organizational Resilience, and Technology Orientation simultaneously influence Company Performance | Accepted   |

Source: Data processed with LISREL 8.8

Theoretical & Managerial Implication

1. This research found that Firm Strategy have positive and significant effect to Technology Orientation. The implication is this if the company want to improve the Technology Orientation it is necessary to improve Firm Strategy. Firm Strategy repair efforts can be done with such efforts; compared to competing companies, the company has better product innovation capabilities, has better professional mining services, and has a stronger brand image.
2. This research finds that Firm Strategy has a positive and significant effect on Company Performance. The implication is this if the company want to improve the Company Performance it is necessary to improve Firm Strategy. Firm Strategy repair efforts can be done with such efforts; compared to competing companies, the company has better product innovation capabilities, has better professional mining services, and has a stronger brand image.
3. This study found that Organizational Resilience has positive and significant effect on Technology Orientation. The implication is this if the company want to improve the Technology Orientation then it needs improvement in Organizational Resilience. Efforts to improve Organizational Resilience can be done with such efforts; the company constantly invites its employees to provide the best, confident that management has a good leadership when the company faces difficulties, and knows how important the company to the stakeholders, we believe that the company already has a decent plan.
4. This study found that Organizational Resilience has a positive and significant effect on the Company Performance. The implication is this if the company want to improve the Company Performance it is necessary to improve Organizational Resilience. Efforts to improve Organizational Resilience can be done with such efforts; the company constantly invites its employees to give the best, confident that management has good leadership when the company faces difficulties, and see how important the company to the stakeholders, I believe that the company already have proper planning.
5. This research found that Technology Orientation has a positive and significant effect on Company Performance. The implication is this if the company want to improve the Company Performance it is necessary to improve Technology Orientation. Technology Orientation improvement effort can be done with effort; the company always try new technology, classification of technology in company is on time delivery, and make capital investment for new machines.
6. This study found that there is a positive and significant influence together Firm Strategy and Organizational Resilience to Technology Orientation. The implication is this if the company want to improve the Technology Orientation it is necessary to jointly improve the Firm Strategy and Organizational Resilience. Efforts to improve the effectiveness of Firm Strategy and Organizational Resilience can be done with efforts; compared to competing companies, the company has better product innovation capabilities, has better professional mining services, and has a stronger brand image; and the company constantly invites its employees to provide the best, confident that management has a good leadership when the company faces difficulties, and sees how important the company is to its stakeholders, I believe that the company already has a decent plan.
7. This research found that there are positive and significant influence together Firm Strategy, Organizational Resilience and Technology Orientation to Company Performance. The implication is this if the company want to improve the Company Performance it is necessary to improve jointly on Firm Strategy, Organizational Resilience and Technology Orientation. Efforts to improve Firm Strategy, Organizational Resilience and Technology Orientation can be done with effort; compared to competing companies, the company has better product innovation capabilities, has better professional mining services, and has a stronger brand image; the company constantly invites its employees to give the best, confident that management has a good leadership when the company faces difficulties, and see how important the company to the stakeholders, I believe that the company already have proper planning; and the company

always try new technology, classification of technology in company is process optimization, and make capital investment for new machines.

### **Limitation**

This study gives the same results as previous research and existing theories. However, this study has limitations in its implementation. Various limitations that include: this study only took respondents from the coal mining company of Indonesia. It might be different outcomes if surveys are held in coal firms in other countries. Quantitative research with survey methods and data collection process takes place also in a short time with the number of respondents is limited.

### **Future Research**

The next research needs to explore deeper in Firm Strategy indicators such as: firms have better product innovation capabilities, have better professional mining services, and have stronger company image than competitor companies, companies' total cost are more expensive, have lower project development costs, and provide lower equipment rental rates. The next research needs to investigate more deeply the indicators of Organizational Resilience such as: the company continually invites its employees to provide the best, confident that management has a good leadership when the company faces difficulties, see how important the company to the stakeholders, the company has a plan the company can make important decisions quickly, employees can usually set aside time from their regular jobs if necessary to engage in emerging activities, responding to early warnings emerging both internally and externally before escalating into a crisis. Subsequent research needs to elaborate other indicators that affect Technology Orientation such as: trying new technology, classification technology on time delivery, investing capital for new machines, introducing new product launches to customers, using cutting-edge technology for production, and the ranking of equipment automation is the best. Subsequent research should examine other performance, such as non-financial performance indicators of the Company Performance such as: companies have innovations that create added value and the company's performance increases rapidly seen from the company's social investment, the company's performance is stagnant and the social value of the company is very high compared to the value of other companies.

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