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# Effect Of Organizational Size And Human Capital On Organizational Performance Through Environmental Uncertainty

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## **Abstract**

The purpose of this research to examine of organizational size and human capital to the organizational performance mediated by perceived environmental uncertainty in manufacturing companies Indonesia. The typology of this research is descriptive statistic where the test is carried out using Structural Equation Model analysis with a formative approach and using PLS test equipment. The population of this study is a company engaged in manufacturing which is domiciled in Medan City, North Sumatra Province, Indonesia. The sampling technique was carried out using a purposive sampling technique with the manager's perception of a manufacturing company. The research variables used were Organizational Size, Human Capital and Uncertainty of the Perceived Environmental. Organizational Size and Human Capital variables cannot directly affect organizational performance, but have an influence when mediated by perceived environmental uncertainty. This shows that managers' perceptions and decisions about the company's external conditions affect the company's performance, regardless of the company having large assets and competent human resources.

Keyword: Human Capital, Perceived Environmental Uncertainty, Organizational Size.

# 1. Introduction

Today the world is facing challenges that may not have been there before. When the Covid-19 outbreak emerged and spread, it created massive panic. In the end, it was announced that Covid-19 had entered Indonesia in March 2020 so far, so to anticipate this condition, the government set a recommendation for people not to travel and reduce crowds, especially in the scope of work. This situation, of course, makes macroeconomic conditions unstable. The company's activities in Indonesia have decreased drastically, starting with the cessation of factory operations as a result of the government's efforts to the Pandemic, contributing to suppressing the

supply chain which causes delays in the delivery of goods from suppliers. This decrease in activity is of course followed by a decrease in the availability of goods, so companies choose to reduce capital goods activities and minimize production costs.

This situation will certainly result in a decrease in supply because the reduction in factory activity will disrupt the supply of goods (www.bisnis.com) and also an increase in demand, especially for mass consumption products. This decline is claimed to be the largest decline since the last survey conducted in April 2011 by HIS Market with a level below 50. The decline in manufacturing productivity is not only felt in the capital city of Jakarta, but also in the city of Medan where Medan is also one of the cities with considerable growth potential, especially in the western part of Indonesia.

The city of Medan is considered to be growing very rapidly because it has an economic base for both trade and services since time immemorial. This is also supported by the strategic position of the island of Sumatra overlooking the Malacca strait and close to Malaysia and Singapore (www.Kompas.com). Judging from its geographical location, the city of Medan is crossed by at least 9 rivers, mainly flowing through industrial areas. This often causes river water to overflow during the rainy season which will cause flooding at a number of points in the industrial area. This flood condition is of course very detrimental to the community, especially from an economic point of view. Starting from material losses to the increase in the price of goods due to the breakdown of distribution channels.

This environmental phenomenon and situation that has undergone major changes, requires industrial companies in the city of Medan to study, analyze and make the right decisions in order to maintain the viability of the company. These changes in conditions result in environmental uncertainty that can impact on the company's performance. When a complex problem occurs in an environment, it will have an impact on environmental uncertainty and there is a mismatch between the environment and the organization which will make it difficult to make decisions (Lee et al, 2011). The discussion of the business world, especially industry, is an important issue because uncertainty can only be overcome with good company performance (Darvishmotevali et al., 2020).

Some of the previous research literature discusses the organizational performance of the financial sector. For example, in terms of firm size, (Jusoh, 2010) and (Ernesto et al., 2016) state that firm size affects organizational performance, however (Kallmuenzer & Peters, 2018) have a different opinion which states that organizational performance is negatively affected by size. company in a family company. Then in terms of human capital which is part a driver of financial performance, so that in theory human capital has a positive effect on organizational performance (Paunović,

2020; Sardo et al., 2018; Xu & Wang, 2018). Human capital contributes which explains by employee graduation rates and this is an added value for the company (Bontis et al., 2018).

Previous research discussed company size on organizational performance, (Ernesto et al., 2016) which suggested that company size could affect organizational performance. Judging from the management of working capital, where large companies can be ascertained to have capital and policies that are quite directed and have a positive effect on company profitability (Al-Mwalla, 2012). This research support to Akbas & Karaduman (2012). Large companies have more power and need to define their long-term vision, goals and strategies by maintaining their superiority (Quinn & Cameron, 1983) because large companies tend to have more resources to execute strategies and seek greater market share and profitability. Assessing the size of the company can be seen from the company's capabilities, diversity, and the production (Sritharan, 2015).

With competent human capital, it can be said that it role in productivity because strategy can be implemented efficiently. Human resources very important so that currently many organizations have embraced human resources as a source to increase competitive advantage that can lead to better performance (Veselinova & Parleev, 2017). Research that discusses human capital finds that human capital has a positive effect on organizational performance (Ismaila, 2013; Ozkan et al., 2017) in the banking sector. As far as is known, there is no research that discusses environmental uncertainty as a pathway variable that can link firm size and human capital variables to organizational performance. With this research, it is hoped that researchers and especially corporate financial managers can anticipate environmental uncertainties that cannot be controlled by improving the quality of human resources and assets to maintain good organizational.

## 2. Literature Review

# 2.1. The Performance of the Organization

The Performance of the organization as an indication of the success of the organization in achieving its goals, (Cherrington, 1994). According to Theory Resource Based that organizational performance is an important factor in every business organization. In various literatures it is stated that traditionally organizational performance is measured by financial measures, (Eccles, 1991; Mishra & Mohanty, 2014), such as ROA, ROE and also ROS. Therefore, organizational performance in this study focuses more on the financial aspect because financial indicators such as net income are objective measures and are generally considered valid and reliable (Dev et al., 1995). Organizational performance indicators in this study include profit and

revenue targets, cost efficiency, increased income, working capital allocation and auditing of financial statements (Hoang et al., 2018).

#### 2.2. Firm Size

Firm Size can be regarded as an indicator that shows the scale of a company. Several empirical studies (Collins et al., 2012; Frank & Goyal, 2003; Moeller et al., 2004) argue that firm size is seen as an important and fundamental characteristic of a company, because in many situations these variables greatly affect leverage, structure capital and organizational performance. Firm size is also interpreted as an increase that will increase costs and higher interests because agency conflicts and stakeholder personal interests are increasingly widespread (Jensen & Meckling, 1976).

# 2.3. The Human of Capital

The Human of capital as a driver of capital of intellectual. Most of the developing and developed countries, with competent human capital will make a major contribution to business performance (Swanson et al., 2001). These intangible resources owned by the organization can be an investment if the accuracy in managing them is good which will result in uniqueness and lead to competitive advantage and business performance (Barney, 1986; Paunović, 2020b). Logically, Human Capital is estimated to have an effect on financial performance because Human capital can be said to be the driver of all business activities. This is in line with (Sardo et al., 2018b; Veselinova & Parleev, 2017) which states that human capital is also one of the keys to success in achieving performance. The human capital indicators used (Sharabati et al., 2010).

# 2.4. Perceived Environmental Uncertainty (PEU)

Environmental of Uncertainty here is not intended as an existing physical condition, but environmental uncertainty based on the manager's perception which is referred to as Perceived Environmental Uncertainty (PEU). PEU refers to the lack of access to adequate information on the environment. This is in line with The Confusion Theory (Sullivan, 2012) which states that environmental uncertainty has created confusion for managers, making it difficult to study and predict. This condition can result in the inability of individuals or managers to anticipate the future (Milliken, 1987 and Lee et al., 2011). The indicators of PEU in this study refer to research (Kwiotkowska & Gębczyńska, 2018) which measures PEU on three dimensions, namely competitive intensity, market turbulence, and technology turbulence.

#### 3. Method

The sample of this research is the managers of manufacturing companies in Medan City, Indonesia as many as 270 companies. There were 145 questionnaires returned and ready to be processed. The data were analyzed with the help of Smart PLS. Before conducting data analysis, the model suitability test was conducted first. The results of the outer loading indicate a value all variables have good convergent validity.

# 4. Findings and Discussion

# 4.1. Findings

# 4.1.1. The Characteristics of Respondent

The questionnaires distributing covered in 270 companies. There are 145 questionnaires returned and ready to be processed. The following are the characteristics of respondents who have filled out the questionnaire:

**Table 1. The Characteristics of Respondents** 

Gender	Total	
Male	106	
Female	39	
Age Range	Total	
19 – 25 Years	12	
26 – 32 Years	26	
33 – 39 Years	79	
40 -46 Years	23	
> 47 Years	5	
<b>Education Level</b>	Total	
Associate	27	
Bachelor	84	
Master	34	
Experience	Total	
2 – 10 Years	93	
11 – 20 Years	48	
> 21 Years	4	

Sources: Data Process (2022)

Based on Table 1, the data were analyzed with the help of Smart PLS. Before conducting data analysis, the model suitability test was conducted first.

# 4.1.2. Validity Test Results

The validity test result show on Table 2 as a follows:

**Table 2. The Validity Test Result** 

Firm Size	Human Capital	Organizational	Perceived Environmental
_		Performance	Uncertainty

FS1	0.838			
FS2	0.864			
FS3	0.839			
FS4	0.860			
FS5	0.842			
FS6	0.785			
FS7	0.746			
HC1		0.818		
HC2		0.889		
HC3		0.846		
HC6		0.806		
HC8		0.815		
OP1			0.763	
OP2			0.916	
OP3			0.882	
OP4			0.938	
OP5			0.891	
PEU1				0.945
PEU2				0.773
PEU3				0.923
PEU4				0.887
PEU5				0.956
PEU6				0.949
PEU7				0.932
PEU8				0.891
C	SartDLC Decult /20	221		

Sources: SmartPLS Result (2022).

In Table 1 all indicators is valid. Thus, the statement can be used as a suitable item to measure the variable.

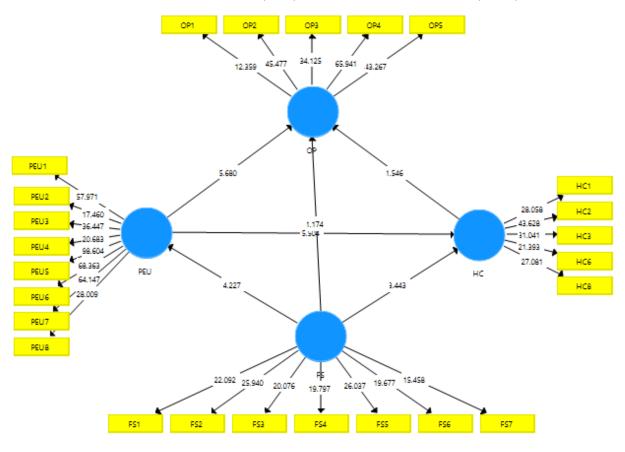
# 4.1.3. Reliability Test Results

Table 3. The Result

	Cronbach's Alpha
Firm Size (X <sub>1</sub> )	0,922
Human Capital (X <sub>2</sub> )	0,892
Organizational Performance (Y)	0,928
Perceived Environmental Uncertainty (X <sub>3</sub> )	0,969

Sources: SmartPLS Result (2022).

The results of the reliability test, that all variables in this study have high and perfect reliability.



Sources: SmartPLS Result (2022).

Figure 1. The Model Result

The results of hypothesis testing can be seen in Table 3:

**Table 4. Test Results** 

	Original	Sample	Standard	t	р
	Sample	Mean	Deviation	Statisti	Valu
				CS	es
Firm Size -> Human Capital	0.398	-0.406	0.067	5.916	0.000
Firm Size -> Organizational Performance	-0.131	-0.130	0.089	1.474	0.141
Firm Size -> Perceived Environmental	-0.340	-0.343	0.082	4.148	0.000
Uncertainty					
Human Capital -> Organizational Performance	0.122	0.129	0.074	1.647	0.100
Perceived Environmental Uncertainty ->	0.404	0.414	0.072	5.619	0.000
Human Capital					
Perceived Environmental Uncertainty ->	0.562	0.568	0.085	6.623	0.000
Organizational Performance					

Sources: SmartPLS Result (2022).

Based on the results of data analysis the value of Human Capital is 0.000 and to perceived environmental uncertainty of 0.000. The finding in this study is that firm size has absolutely no effect on organizational performance. These

results can be seen in the table which shows that PEU has a significant effect of 0.000. Then for Firm Size has a significant effect of 0.000 on Human Capital, while Human Capital has no effect on Organizational Performance.

#### 4.2. Discussion

# **4.2.1.** Firm Size has an effect on Organizational Performance through Perceived Environmental Uncertainty

The size of a company cannot be the main benchmark in determining organizational performance. This is based on the fact that every company, both small and large, both want good Organizational Performance and increase every year. Company size which is usually measured by company assets, sales volume, human resources and others describes the company's ability to compete. Company size is closely related to company growth over time, because company size tends to change along with company growth (Karlsson, 2021a). Large companies certainly have more resources than small companies, so that will make the company more competitive in the market and can also affect the value of the company itself. Over time, the company will continue to grow and develop because it is supported by adequate resources and has special skills to lead the organization towards a better direction (Barbu et al., 2021a). Based on field data obtained, good organizational performance indicators do not depend on the size of a company, but rather on the company's readiness and strategy to face environmental changes.

PEU that occurs in each region will have a different impact and response from each company. Large companies will show a much greater impact of PEU than small companies (Ezzamel, 1990). PEU caused by external changes put great pressure on the company's performance, especially from a financial perspective (Erina Sudaryati, 2020). The increase in PEU will increase the company's operating expenses, reduce the amount of demand for goods and will ultimately have an impact on the decline in the company's financial performance. Of course, this fact is not only felt by large companies, small companies also feel it.

The results of the study give a value of -0.340 which means that the larger the size of an organization, the smaller the impact of perceived environmental uncertainty (García-Pérez et al., 2012) because large companies can be sure to have readiness and strategies resulting from experience and the capability of the resources possessed, considering that large companies will definitely have large resources and focus more on competition and recruitment of resources, (Karlsson, 2021b), and with the uncertainty of the environment will also increase innovation in change, (Freel, 2005). The results of this study provide evidence that PEU can mediate firm size has a positive impact on firm performance (Barbu et al., 2021b; Ernesto et al., 2016b; Ezizwita & Sukma, 2021; Haahti, 2006; Jusoh, 2010b).

# **4.2.2.** Perceived Environmental Uncertainty terhadap Human Capital dan Organizational Performance.

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The effect on Organizational Performance. It is based on data collected from a sample of manufacturing firms. Good organizational performance cannot be measured by financial indicators alone. Companies that experience high PEU, managers will respond to uncertainty by increasing information, both informal and formal information. In a PEU situation, managers will make decisions that focus on non-financial indicators (Rikhardsson et al., 2020), namely customers. This is because customers are the main stakeholders of a company. If there is no demand for products/services from customers, the company will not be able to run and survive. This research was conducted in the manufacturing sector, where companies need products to sell in order to generate profits. Uncertainty in the environment increases the responsiveness of managers by 40% which can be said that managers focus intensely on taking options or other actions outside of the planned strategy.

This study adds to the list of evidence that if PEU is high, managers will act more to face the challenges and obstacles that occur due to the uncertainty of the environment, although the results prove that the actions of financial managers will not focus on financial indicators, but they will focus more on keeping customers. This study is in line with several studies which state that Perceived Environmental Uncertainty can affect Human Capital and organizational strategy (Aragón et al, 2007; Galdeano et al., 2008; Herzlinger, 2006; Kaplan & Porter, 2011).

## 5. Conclusion

Environmental uncertainty factors play an important role in every condition and type of company, whether manufacturing, trading, or service. Unpredictable environmental uncertainty can react to company leaders to respond and prepare all strategies to be able to continue to compete and develop. Regardless of the size of a company, when faced with a situation of environmental uncertainty, it will certainly change the company's strategy that was previously conceptualized and maximize its human capital. This is solely to continue to produce good organizational performance, especially in terms of financial improvement. Changes in the company's strategy, of course, involve human capital as an active response in decision making. Large companies that have competent human capital can minimize the impact of environmental changes caused by high uncertainty. The limitation of this research is that this research is only measured from the perspective of the organization's financial performance and the manufacturing sector only, should the next research add a non-financial perspective and a larger sample scope.

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