

The role of president director's characteristics in affecting the corporate cash holdings on manufacturing companies listed on Indonesia stock exchange

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Abstract

The purpose of this study is to determine the effect of president director's Education Major, Education Level, Age, and Tenure towards Cash Holdings on manufacturing companies. The type of data used is quantitative. The data taken is secondary data, in the form of annual report of manufacturing companies for five years, from 2015 to 2019. The sampling method used was a purposive sampling technique, thus resulting in a total sample of 130 companies. This study used the documentation method obtained from the annual and financial reports published on the official website of the Indonesia Stock Exchange. The analytical tools used are descriptive statistics and panel data regression. The result of this study indicates that (1) Education Major which proxied by MBA has a positive and significant effect on Cash Holdings. (2) Education Level has a negative and significant effect on Cash Holdings. (3) Age has a positive and insignificant effect on Cash Holdings. (4) Tenure has a positive and insignificant effect on Cash Holdings.

Key words: Cash holdings; education major; education level; age; tenure

INTRODUCTION

The importance of efficient and effective cash holdings management practices of the company has been an area of interesting research in recent years as cash is the most liquid form of assets and need to be an important concern for a company.

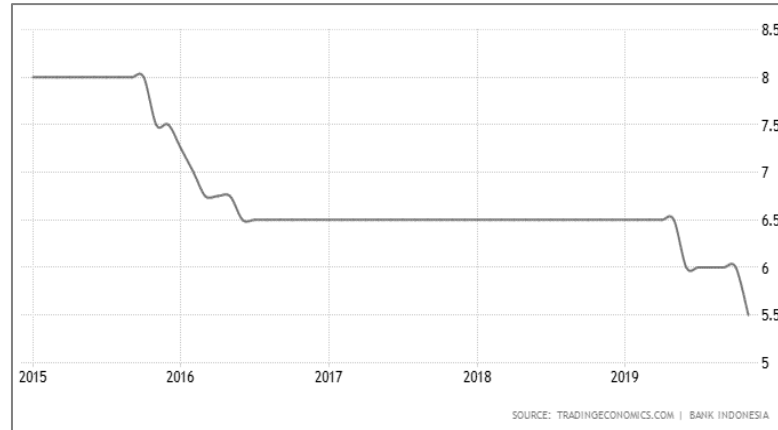


Figure 1.
Cash Reserve Ratio in Indonesia for the 2015-2019 Period

In Indonesia itself, their cash holdings reached their maximum point with a ratio of 8% in 2015. This ratio had become highest point of all periods from 2009. Which then Indonesia's cash holdings experienced a drastic decline until 2019 with a ratio of 5%. With this decline it might impact the value of Indonesian firm.

Variation in the amount of cash holdings is expected to impact the value of the firm. Saving a large portion of cash will be profitable for a company especially when the credit crisis occurs, if there is a currency imbalance in a country and when the capital markets are difficult to access. In contrast, the downside of having a large portion of cash is that it will cause losses for the company because the company cannot achieve optimal profitability, also will make the company lose the opportunity to invest since the cash is only stored (Gill & Shah, 2011; Opler et al., 1999).

Miscalculations and incorrect cash out estimation, might will result in a company bankrupt. For example, in 2018 alone, PT. Sariwangi Agricultural Estate Agency was declared bankrupt due to the president director's error in calculating cash outflows This is emphasized by the existence of a debt of Rp 1.5 trillion owned by PT. Sariwangi Agricultural Estate Agency. This company built a drainage system and had overused cash (Thohari, 2018).

The occurrence of these failure happened due to a bad financial policy implementation took by the president director. The decision made by the top managers are based on their cognitive orientation, social, and psychological characteristics of them. The cognitive abilities of a top managers will lead him to make a strategic decision for the firm. Therefore, top managers decision will affect the firm performance, which affected by the managerial abilities possessed by the top managers (Mun et al., 2020). This managerial abilities fundamentally related to individual's background and characteristics which is the primary basis of top manager's cognitive abilities, and can be proxied by demographics such as education, tenure and age (Hambrick & Mason, 1984). Based on the problems above, this study aims to see whether the characteristics of a president director can affect their cash practices, especially in terms of determining the size of the cash holdings of manufacturing companies listed on the Indonesia Stock Exchange for the 2015-2019 period.

Literature Reviews

Agency Theory

Agency theory is a theory that explains the relationship between shareholders (principal) and management (agent). Jensen & Meckling (1976) stated that an agency relationship is a contract where one or more shareholders involve an agent to perform some services on their behalf where some decision-making authority is delegated to the agent. Based on agency theory, there will be divergence in the principal's and the agent's decision, since both of the parties are utility maximizers. This asymmetry will lead to the common agency problem. The problem arise if the control over the resources be possessed

by the agent, then it will lead the agent to satisfy and maximize his own interests instead of the principal's interests (Jensen & Meckling, 1976). Based on agency theory, the controlling shareholders will elect CEO that able to align the firm's goals and maximizing their welfare (Mun et al., 2020).

Upper Echelons Theory

According to Hambrick & Mason (1984) Upper echelons theory is the idea that top executives view their situations through their own situations – opportunities, threats, alternatives and likelihoods of various outcomes – through their own highly personalized lenses. These individualized construal's of strategic situations arise because of differences among executives in their experiences, values, personalities, and other human factors. Upper Echelons Theory (UET) posits that strategic decisions of a firm are affected by upper echelon characteristics; that is, firm performance is affected by the strategic decisions shaped by managerial capabilities, which are fundamentally related to the background and characteristics of executives. Thus, a president director's managerial perspectives, knowledge and skills are based on their educational background, characteristics, and impact her strategic decisions (Mun et al., 2020).

Cash Holdings

According to Gill & Shah (2011), cash holdings are defined as cash that is in a company or available for investment in physical assets and to be distributed to investors. Cash holdings are viewed as cash and cash equivalent that can easily converted into cash. The benefits of cash holdings is that they can buffer investment, allowing firms to reduce the cost of external financing (Myers & Majluf, 1984). Opler et al., (1999) stated that firms with cash holdings are able to perform for unexpected events without raising additional funds from outside the firm.

The Effect of Education Major on Cash Holdings

The difference in educational background regarding majors strongly affect the decision-making process of a manager which by affecting various dimensions and characteristics such as their career path and experiences (Hambrick & Mason, 1984). Prior research has highlighted that personal decision making varies depending on the choice of university major (Mackewn & Vanvuren, 2007). Many researchers have been slightly more inclined to majors that identical with calculation such as business major and science and engineering. In a case where shareholder expect the president director to more inclined to product marketing and technology development innovation, able to accept excess cash rather than investing, president director with science and engineering major is suitable for this case (Mun et al., 2020). On other side, president directors with a business major or an MBA degree will likely to be more aggressively active in innovation and strategy changes, they do not have the need to hold more cash, and tend to engage in short term investment hence they tend to hold less cash (Barker & Mueller, 2002; Bertrand & Schoar, 2003; Custódio & Metzger, 2014; Mun et al., 2020).

The Effect of Education Level on Cash Holdings

Barker & Mueller (2002) discuss the important of CEOs education level, finding that the higher level of education is then the more likely CEO to adopt better market innovation strategy, more less risk-averse, and tend to have greater ability to absorb new ideas, innovative changes and investment opportunities. CEOs with higher education levels are more confident using external financing for risk management purposes, they will be less concerned with precautionary motive of cash, and will likely spend their money in order to appeal more productive thus they tend to minimize cash holdings (Belghitar & Clark, 2012; Berger et al., 2014). Especially when it comes to master's degree, Mun et al., (2020) found that CEOs with master degree will manage their cash better than president director with other degree.

Age

Milana & Maldaon (2015) stated that age is expected to impact the way manager working, manager's strategic decision making. The way age impacting the managerial behavior might lies in order of their thoughts of their career concerns. Prior studies suggest that younger CEOs tend to be more risk averse because they do not yet have reputation therefore, they will behave more cautiously in order to built their reputations and keep their positions for long term career by less investing, although these investment decisions might hinder their abilities. Subsequently, as president directors getting older they tend to restrict a tendency in long term investment such as R&D (Serfling, 2014; Xie, 2015).

Tenure

Tenure or job tenure could be defined as the length of time of an individual's current job position (Ng & Feldman, 2013). As executives got newly appointed, they are still at experimentation stage, need to gain more knowledge, still grasping for new ideas, and implement changes, therefore, they tend to act cautiously by buying or investing less and more efficient, therefore they will tend to hold more cash in order to secure their positions for a long period (Hambrick & Fukutomi, 199; Orens & Reheul, 2013; Xie, 2015). As tenure increase, executives tend to gain more knowledge and experience about their firm and industry better (Milana & Maldaon, 2015). Therefore, they may have more knowledge about their business, resources, and the cash needed by the firm thus they might develop a decision to assess investment opportunities, pursue riskier strategies (Kor, 2006; Barker & Mueller, 2002). Orens & Reheul (2013) also stated that since CEOs have longer period, they tend to have more confident in their task and to take more challenging decisions as they don't need to worry about position replacement. Hence, they may lead to more efficiency and will lead to smaller cash holdings (Eekelen, 2014).

METHOD

The financial data and biography of president director are collected from financial and annual reports taken from Indonesia Stock Exchange and companies' official website. As for this research uses manufacturing companies that are listed on the IDX for the 2015-2019 period. Resulting in a total of 130 companies that fulfilled the criteria of purposive sampling. The type of data used in this research is quantitative data.

Dummy variables are used in this study and each variable is categorized into 2 categories respectively. The education major variable is divided into 2 categories, Business or Economic related major proxied with MBA, and SCI_ENG as Science and Engineering major. Variable education level is categorized into MAS which is Master's degree, and Doctoral degree as DOC. The variable age consists of 2 categories, namely AGEU35 which is president director under 35 years, and AGE35_50 is president director with an age range of 35 to 50 years. Variable tenure is categorized into TEN5_9, and TENM10, where each category starts from 5 years to 9 years of tenure to more than 10 years serving as president director.

In all regression models in this paper, we compute the variable of cash holdings retrieved from the normal cash regression of Mun et al., (2020) and Orens & Reheul (2013). The model used in this research are as follows:

$$CASH_{it} = \alpha_{it} + \beta_1 MJR + \beta_2 LVL + \beta_3 AGE_{it} + \beta_4 TEN_{it} + e$$

In the equation above, Cash is measured as cash and cash equivalent; MJR is major which assign 1 if president director have MBA and 0 if have SCI_ENG; LVL is education level which assign 1 if president director holds MAS and 0 if hold DOC; AGE is president director's age which assign 1 if president director have AGE35_50 and 0 if have AGEU35; TEN is tenure which assign 1 if president director have TENM10 period and 0 if have TEN5_9 period; and e is confounding variable.

RESULTS AND DISCUSSION

Data Description

Table 1.
Data Retrieval Used in Research

NO	CODE	YEAR	CH	MBA	SCI_ENG	MAS	DOC	AGE 35-50	AGE U35	TEN M10	TEN5_9
1	ADES	2015	0,0368	1	0	1	0	1	0	0	0
		2016	0,0460	1	0	1	0	0	0	0	0
		2017	0,0303	1	0	1	0	0	0	0	0
		2018	0,1160	1	0	1	0	0	0	0	0
		2019	0,1569	1	0	1	0	0	0	0	0
2	AISA	2015	0,0649	0	1	0	0	1	0	1	0
		2016	0,0319	0	1	0	0	1	0	1	0
		2017	0,0208	0	1	0	0	1	0	0	0
		2018	0,0258	0	1	0	0	1	0	0	0
		2019	0,0294	1	0	1	0	1	0	0	0

NO	CODE	YEAR	CH	MBA	SCI_ENG	MAS	DOC	AGE35-50	AGEU35	TENM10	TEN5_9
.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.
130	YPAS	2019	0,0169	-	-	0	0	0	0	0	0

Table 1. is the data that will be carried out in the study. Data retrieval is carried out with nominal scale data types. This study uses a binary coding pattern (0,1) where by being coded 1 for respondents who are members of the category and given 0 if the respondent is not in that category. In this way, each respondent has a code of 1 in the category that fits it and has a code of 0 in the category that does not suit it (Widhiarso, 2010).

Table 2.
Total of Observations of Each Variable Category

OBSERVATION		
Total Observation		650
Total Incomplete Data		(37)
Total Observation After Adjustment		613
VARIABLE		
	Education Major	Education Level
	MBA	SCI_ENG
	338	129
	467	175
	Age	Tenure
	AGE35_50	AGEU35
	162	4
	166	339
Total per Variable		

From 130 companies in the 2015 to 2019 period, there were several companies that had more than 1 change of president director in that period. Therefore, the calculation of the number per category is based on the number of observations, where the number of samples x the number of years in the period, thus, it focuses more on the changes in the year.

Descriptive Statistics

Table 3.
Descriptive Statistics

	CH	MBA	SCI_ENG	MAS	DOC	AGE35_50	AGEU35	TENM10	TEN5_9
Mean	0.093768	0.008157	0.256117	0.277325	0.006525	0.551387	0.210440	0.174551	0.344209
Median	0.051349	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000
Maximum	0.723993	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Minimum	0.000388	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev	0.111226	0.090018	0.436844	0.448044	0.080581	0.497759	0.407954	0.379893	0.475498
Observation	613	613	613	613	613	613	613	613	613

The results of descriptive statistics show that only Age35_50 has a mean above the standard deviation, while CH, MBA, SCI_ENG, MAS, DOC, AGEU35, TEN5_9, and TENM10 have a mean below the standard deviation.

Regression Result and Hypothesis Testing

This research is used Fixed Effect Model which resulting:

Table 4.
Results of Panel Data Regression Analysis in Each Category of Variable Education Major (MBA, SCI_ENG), Education Level (MAS, DOC), Age (AGEU35, AGE35_50) and Tenure (TEN5_9, TENM10)

Dependent Variable	Independent Variable	Regression Coefficient	t-stat	Prob.	Way	Des.
CH	Constanta	0.058848	4.208323	0.0000		
	MBA	0.051953	2.785145	0.0056	(+)	Significant
	SCI_ENG	0.046752	2.352719	0.0190	(+)	Significant
	MAS	-0.030256	-2.828424	0.0049	(-)	Significant
	DOC	-0.012872	-0.304911	0.7606	(-)	Insignificant
	AGE35_50	0.013086	1.315279	0.1890	(+)	Insignificant

Dependent Variable	Independent Variable	Regression Coefficient	t-stat	Prob.	Way	Des.
	AGEU35	-0.028543	-0.934732	0.3504	(-)	Insignificant
	TENM10	0.008620	0.620598	0.5352	(+)	Insignificant
	TEN5_9	-0.006885	-0.794201	0.4275	(-)	Insignificant
R-Squared		0.839141				
Adjusted R-Square		0.794476				
F-Statistic		18.78767				
F Significant		0.000000				

In the FEM model the coefficient of determination (R²) is 0.839141. This means that the dependent variable (CH) can be influenced by 83.91 percent by the independent variable (EDUCATION MAJOR, EDUCATION LEVEL, AGE, TENURE), while the remaining 16.09 percent is explained by other variables not included in this research model.

Based on the results of regression testing in table 8 which is shown, the model of this study is as follows:

$$CH = 0.0058848 + 0.051953MBA + 0.046752SCI_ENG - 0.030256MAS - 0.012872DOC + 0.013086AGE35_50 - 0.028543AGEU35 + 0.008620TENM10 - 0.006885TEN5_9 + e$$

To find out the results of the dummy regression is to enter the binary coding (0,1) into the equation with the dummy variable and can be described for each category by entering the value of the category variable (Zelvia, 2017).

The Effect of Education Major on Cash Holdings

Based on the researcher's test result, it shows that the MBA value is 0.051953 with a significance level of $0.0056 < 0.05$ and the SCI_ENG value is 0.046752 with a significance level of $0.0190 < 0.05$. The regression equation for this analysis is as follows:

$$Y = \beta_0 + \beta_1MBA + \beta_2SCI_ENG$$

$$Y = 0.058848 + 0.051953(1) + 0.046752(0) = 0.110801$$

$$Y = 0.058848 + 0.051953(0) + 0.046752(1) = 0.1056$$

From the results of the research above, it can be seen that the president director with an MBA major is higher than the president director who has a major SCI_ENG with a difference of 0.005201. This shows that companies with president directors who have business or economic related majors will hold higher cash holdings of 0.110801 compared to companies with president directors who have science and engineering major. The regression model generated from this analysis means that the MBA variable has a positive and significant effect on CH. (Hypothesis 1 is rejected).

Based on the results of this study indicate that MBA has a positive and significant effect on cash holdings in manufacturing companies in Indonesia. The results of this study differ from the hypothesis which states that MBA has a negative and significant effect. The results of this study are in line with research conducted by Mun et al., (2018). In his research, he emphasizes the Upper Echelons Theory by Hambrick and Mason which states that many MBA program graduates generate to more conservative personalities. Due to their conservativeness, they become more difficult to accept new innovations and tend to avoid risk. Malmendier & Tate, (2005) also stated that CEOs who majored in business outperform other CEOs on risk management, thus they are capable of making sound long-term investment, which will increase free cash flows and increase the company's cash holdings.

The Effect of Education Level on Cash Holdings

The results of this research showed that the MAS value is -0.030206 with a significance level of $0.0049 < 0.05$ and the DOC value is -0.012872 with a significance level of $0.7606 > 0.05$. The regression equation for this analysis is as follows:

$$Y = \beta_0 + \beta_3MAS + \beta_4DOC$$

$$Y = 0.058848 + (-0.030206)(1) + (-0.012872)(0) = 0.028642$$

$$Y = 0.058848 + (-0.030206)(0) + (-0.012872)(1) = 0.045976$$

From the results of the equation above, it can be seen that the president director with master's degree have least cash holdings than the president director who holds doctoral degree with a difference of 0.017384. This shows that companies with president directors who have master's degree will save a

lower cash holding of 0.028642 compared to companies with president directors who have doctoral degree. The regression model generated from the above analysis means that the master's degree has a negative and significant effect on CH. (Hypothesis 2 is accepted).

This shows the results that master's degree has a negative and significant effect on cash holdings. In line with the hypothesis. The results of this study are in line with the research conducted by Mun et al., (2020) and (Mun et al., 2018) which found a negative and significant effect between master's degree and cash holdings. President directors with higher degrees might be able to think and understand more deeply and thoroughly about the consequences of their decisions, therefore they will only absorb more useful information to improve their financial skills. They will be more open to innovation and changes hence they can easily find and absorb new ideas that have better potential for productivity and efficiency (Barker & Mueller, 2002). With the high education of the president director, they refuse to appear unproductive by saving a lot of money, thus they prefer to put their money into profitable investments in order to be productive. They will become less risk-averse, so they become more courageous and confident in using external financing therefore they minimize cash holdings. Especially when it comes to president director who holds master's degree, when the president director obtains a master's degree, the president director gains more experience in finance and also develops skills in management, this makes the president director with a master's degree tend to manage their cash relatively more well (Mun et al., 2018, 2020).

However insignificant result is found when the sample president directors hold doctoral degree. The potential explanation for this is because the higher the education degree, the less dynamic the mind of a president director will be. Therefore, when president directors started to enter higher degree, they will reduce their tendency to invest in current projects. As education get higher, investors might also consider high level of cash holdings as a type of long-term investment such as M&A. These results explain that level education in general begins to reduce its impact when the president director holds a doctoral degree (Mun et al., 2020).

The Effect of Age on Cash Holdings

Based on the researcher's test result showed that the AGE35_50 value is 0.1890 with a significance level of 1.315279 > 0.05 and the AGEU35 value is -0.028543 with a significance level of 0.3504 > 0.05. The regression equation for this analysis is as follows:

$$Y = \beta_0 + \beta_5 \text{AGE35_50} + \beta_6 \text{AGEU35}$$

$$Y = 0.058848 + 0.013086 (1) + (-0.028543) (0) = 0.071934$$

$$Y = 0.058848 + 0.013086 (0) + (-0.028543)(1) = 0.030305$$

From the results of the equation above, it can be seen that the president director with age between 35 and 50 years is higher than the president director under 35 years old with a difference of 0.041629. This shows that companies with president directors with age between 35 and 50 years hold more cash holdings by 0.071934 compared to companies with president directors who are under 35 years old. The regression model in this study shows that age has a positive and insignificant effect on CH (Hypothesis 3 is rejected).

Based on the research's results, it shows there is a positive and insignificant effect between the president director with the age of 35-50 years and cash holdings. This means that with the president director entering the age range of 35-50 years, it will not significantly increase the company's cash holdings. The results of this study differ from the hypothesis which states that the Age variable has a significant negative effect on cash holding. The results of this study are in line with the advance Upper Echelons Theory which states that there is a change in a person's characteristics when aging. With the president directors' age increase, they will become more conservative and risk-averse (Hambrick & Mason, 1984). Older president directors will have less time to recover their losses before meeting retirement, this is what causes them to prioritize financial security and stability (Barker & Mueller, 2002). They will prefer safe internal funding compared to external funding which is a little riskier. They do this to hedge against undesirable future events which emphasizes that they are more concerned with the precautionary motive of cash and lose their opportunity cost, which will bring them to a higher level of cash holdings (Orens & Reheul, 2013).

The potential explanation for this insignificant result is how CEO's confidence, energy, wisdom, and ambition will decline with age. Especially if the president directors have been entrenched, so as the age increase, it will not have a big effect on cash holdings and make ageing less important (Yim, 2013). The potential explanation for this is because the higher the education degree, the less dynamic the mind of a president director will be. Therefore, when president directors started to enter higher degree, they will reduce their tendency to invest in current projects. As education get higher, investors might also consider high level of cash holdings as a type of long-term investment such as M&A. These results explain that level education in general begins to reduce its impact when the president director holds a doctoral degree.

The Effect of Tenure on Cash Holdings

The results of the research showed that the TENM10 value is 0.008620 with a significance level of $0.5352 > 0.05$ and the TEN5_9 value is -0.006885 with a significance level of $0.4275 > 0.05$. The regression equation for this analysis is as follows:

$$Y = \beta_0 + \beta_7TENM10 + \beta_8TEN5_9$$

$$Y = 0.058848 + 0.008620 (1) + (-0.006885) (0) = 0.067468$$

$$Y = 0.058848 + 0.008620 (0) + (-0.006885)(1) = 0.051963$$

From the results of the equation above, it can be seen that the president director who has a tenure of more than 10 years is higher than the president director who has a tenure of 5 to 9 years with a difference of 0.015505. This shows that companies with president directors who have a tenure of more than 10 years have a larger cash holding of 0.067468 compared to companies with president directors with a tenure of 5 to 9 years. The regression model in this study shows that tenure has a positive and insignificant effect on CH (Hypothesis 4 is rejected).

The results of this study indicate that there is a positive and insignificant effect when the president directors have more than 10 years of tenure. This means that with the president director served for more than 10 years, it will have no significant effect in increasing the company's cash holdings. This study supports the research conducted by Orens & Reheul, (2013), and Miller & Xu, (2019). Longer tenured president directors have more stable jobs, and have confidence that their positions will not be replaced in the near future, thus makes them withstand on financial and strategies stability for their firm (Eekelen, 2014). This stability will make them choose funding that is not risky and safe, such as internal funding. They tend to be more concerned with precautionary motives of cash and override opportunity costs, which will increase free cash flow and increase the company's cash holdings (Orens & Reheul, 2013).

According to Orens & Reheul, (2013), this non-significant result shows that tenure is a weaker factor to be used as a predictor that affects the amount of cash holdings in companies. In medium to large size companies, usually show a higher share of outsiders on their boards and less CEO duality which indicates that the level president directors' oversight is tighter and reduces the level of president directors' discretion. Medium and large companies are also signaled by its many management layers, hence before making a decision they must discuss with other management different points of view which result in lower president director's discretion in a company.

CONCLUSION

This paper demonstrate that president characteristics do have impact on the cash holdings of a company. It will be very useful for stakeholders to know how cash practices are associated with current and potential new leaders' demographics. The reason of this is they play an important role to grasps the need of the firm and maximize the corporate's value. Therefore, it is also better before appointing president director, managerial parties and businesspeople can choose a president director based on competence and according to the company's needs by looking at their cash practices so that the company can work more effectively and professionally.

In summary, this paper shows that president directors with MBA major tend to save larger amount of cash holdings. President directors who hold Master's Degree tend to save smaller amount of cash holdings because of their well and better effective cash management, whilst the effect of education level is decrease when the president directors hold Doctoral Degree resulting in insignificant result of it. Unfortunately, Age and Tenure become a weak variable as a predictor variable for cash holdings. This might cause by how medium to large size company have many layers of management that make the

president directors are not independent to make decisions even less when president directors already entrenched which make age and tenure become less important.

The author is aware of the limitations of this study. This research is more oriented towards major business or economic related major, upper education degree, and unwide range of age and tenure of president directors. For next research it is better to do this research in wider area of object, orientations, and variable range, therefore variety result from wider area might be able to find its effect on cash holdings. The reason of this is the different types of industry in each company have implications for the policies and characteristics of cash holdings and might also the mindset of the president director.

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