

Analysis of the Influence of Foreign Institutional Investors on Long-Term Investment, Human Capital and Innovation in Public Companies Listed on the Indonesian Stock Exchange

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ABSTRACT

The role of foreign institutional investors is becoming increasingly prominent in companies around the world. They have different characteristics compared to domestic institutional investor. This study tries to see the effect of the two types of investors on long-term investment (Capital Expenditure & Research & Development), human capital and innovation in public companies listed on the Indonesia Stock Exchange (IDX). The data used is a sample of public companies listed on IDX with a research period of 2011-2020. This evidence proves that there is no significant effect of foreign institutional investors on long-term investment, human capital and innovation output of public companies in Indonesia. However, domestic institutional investors seem to have a positive and significant impact on human capital.

Keywords: *Foreign Institutional Investors, Long Term Investment, Human Capital, Innovation*

1. INTRODUCTION

Foreign institutional investors have different characteristics compared to domestic institutional investors [22]. Foreign institutional investors are known to be independent from management, have a large international portfolio, and are able to monitor companies [14],[16].

According to the Indonesian Central Securities Depository (KSEI), institutional investors consist of several categories, namely mutual funds, corporations, insurance, securities companies, Pension Funds, as well as financial institutions and foundations. In addition, institutional investors also consist of several categories [11], namely traditional institutional investors (investment funds, corporate insurance and pension funds), Alternative institutional investors (sovereign wealth funds, private equity firms, hedge funds, and exchange-traded funds) and asset managers. who invests on behalf of the client. In addition to the three types of investors above, there are other institutions such as

foundations, closed-end investment companies, and proprietary trading desk of investment banks.

In Indonesia, foreign institutional investor ownership is more dominant than domestic institutional investor ownership, although its position is still below local companies, like the table below:

Table 1. Share Ownership of Foreign Institutional Investors in Indonesia (Thousand Sheets)

Tahun	Domestic Investor Institution	Local Corporate	Local Individual	Foreign Investor Institution	Foreign Corporate	Foreign Individual
2016	299,14	776,49	471,31	824,86	336,36	22,77
2017	427,73	1.009,55	631,05	792,10	418,06	17,50
2018	468,65	1.160,11	686,50	859,51	452,20	14,27
2019	551,94	1.332,64	772,31	991,15	476,96	15,02
2020	546,85	1.401,50	898,09	993,37	499,74	12,51

Source : KSEI (2021)

In the table 1, The ownership of foreign institutional investors in Indonesia showed an increase from 2018 to 2020. In 2020 the number of foreign institutional investors showed an increase to 993.4 billion shares from

the previous year which amounted to 991.2 billion shares. This is in contrast to the ownership of domestic institutional investors which decreased from 551.9 billion shares in 2019 to 546.86 billion shares in 2020. The ones that dominate the ownership of foreign investors are commercial banks, with ownership of 35.49%. Meanwhile, the ownership of domestic institutional investors is dominated by insurance companies with ownership of 32.13%.

However, there are allegations that foreign institutional investors as shareholders of a company cause managers to reduce Capital Expenditure, Research and Development and the number of workers. This is inseparable from the assumption that there is a "hot money" theory from foreign portfolio flows in search of short-term profits, regardless of the company's long-term prospects. [6]. Hot Money itself is a short-term foreign fund that flows in (capital inflow) into a country's financial market massively and can go out at any time (capital outflow) if the political and economic situation in the country is no longer profitable for the owners of capital because of the level of profit received not maximal anymore [26].

The proportion of ownership by institutional investors with temporary holdings (high turnover) significantly increases the likelihood of managers reducing R&D to increase profits. Then, long-term investors monitor company regulations which add value to shareholding and prevent overinvestment [18].

In addition, another assumption states that ownership by foreign institutional investors causes monitoring that will encourage investment in capital expenditure, innovation, and human capital. This is due to the better position of foreign institutional investors in monitoring the company's internals and being able to influence decision making in the company.

Meanwhile, domestic institutional investors have stronger relationships with the companies they invest in. Thus, they are more effective in accommodating company insiders and less external oversight [12]. In addition, foreign institutions may be more tolerant of high-risk trading in the long term because they have a better ability to diversify risk through their existing portfolio. The steps taken by foreign institutional investors to influence are diplomacy, active voting or even confrontation [2].

This study aims to examine effect of institutional investors on the long term (capital expenditure and research & development), human capital and innovation of public companies in Indonesia. This study tries to continue the research conducted by [6], which examined the influence of institutional investors on the level of long-term investment and the level of corporate innovation in 33 countries in the world.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

2.1 Investor Institution

The emergence of a conflict of interest in the company is caused by participants who have different goals and objectives and imperfect information regarding the actions, knowledge, and preferences of other participant [14]. Therefore, a monitoring function is needed by parties outside the company, in this case institutional investors. According to [20] institutional investors can lead to a reduction in agency costs by sharing ownership and control. This is inseparable from the monitoring of activities carried out by institutional investors.

Foreign institutional investors may be in a better position than domestic institutional investors in terms of monitoring management and influencing decision making. This is due to the business relationship that is not very close with local companies in which they invest, as opposed to domestic institutional investors. Research conducted by [21] said that institutional investors who have business relationships with local companies may feel they have to be loyal to management. In this case, according to [12], it can be indicated that foreign institutional investors carry out their supervisory function properly. Furthermore, it is found that domestic institutional investors do not have the same impact on company performance and investment policies.

Thus domestic institutional investors may be more accommodating to company insiders and less effective due to external monitoring [14][12]. Meanwhile, foreign institutional investors are less burdened by ties to company insiders, so that foreign institutions can reduce managerial strengthening. Meanwhile, according to [10] Foreign institutional investors can reduce conflicts of interest between managers and shareholders through a number of channels, including monitoring management, voting [5][25], and threatening will come out [2]. Meanwhile, Ferreira and Matos [12] who examined the influence of institutional investors in 27 countries, stated that institutional investors who have fewer business relationships with companies have strong power in supervising companies.

2.2 Long Term Investment

Institutional investors reduce the amount of capital expenditure (Capex) so that it can reduce that investor pressure reduces institutional for managers to make excessive investments [12]. Institutions effectively reduce agency costs by limiting the tendency to overinvest [20], because institutional investors also overinvest so that they will get a negative net present value. Research conducted by [6] shows that there is a positive and significant influence between foreign

institutional investors on capital expenditures in 30 countries in the world.

2.3 Research and Development

In research conducted by [6] there is a hypothesis that foreign investors can guide managers in cutting research & development (R&D) costs. This is inseparable from the suspicion that the flow of foreign investors representing "Hot Money" who seek short-term profits and pay little attention to the company's long-term prospects. This statement has an impact on reducing the amount of resources used for research & development which in fact is intended for the company's long-term plans. Bushee [9] found that managers were significantly more likely to cut R&D to replace earnings when institutional ownership was high.

2.4 Human Capital

The potential for "Hot Money" brought in by foreign institutional investors, as well as the alleged "locust" character that exists in institutional investors lead to allegations that foreign institutional investors will bring managers to reduce investment in human capital [6]. In addition, there is also research by [3] which states that the increasing ownership of foreign institutional investors can cause pressure to realize short-term profits, causing a risk of being fired by managers.

2.5 Innovation

Innovation is the main engine of growth [6] so that it becomes a driving force for companies to be better. Technological innovation determines the company's economic growth in the long term. However, there are still formidable challenges for companies outside the United States to engage in innovative activities [22]. The company's innovation barriers consist of internal barriers according to the country's culture and institutional environment [4], [8], [19], [27]

One of the external solutions to overcome the barriers to innovation of local companies is the function of foreign institutional investors. According to Luong et al [22] who conducted research in 26 non-US countries, there are 3 mechanisms for foreign institutional investors in promoting innovation, namely being active in monitoring, providing guarantees against innovation failure for company managers who have careers or giving appreciation. concern for reputation), and by disseminating knowledge from countries with high levels of innovation. It is important for companies to innovate when product market competition is high and managers are less entrenched in the company [3]. the size of a company's innovation output can be seen from the number of patents produced by a company [15].

Research conducted by [22] explains that there is a positive and significant relationship between foreign institutional investors and corporate innovation. [24] proved that foreign institutional investors and innovation have a positive and significant relationship on Chinese companies.

Hypothesis 1: Foreign institutional investors have an effect on long-term investments consisting of Capital Expenditure & Research & Development

Research conducted by [12] shows that foreign institutional investors will reduce the amount of capital expenditure to be issued by the company. Meanwhile, research conducted by [7] shows that companies targeted by the Hedge Fund reduce research & development (R&D) spending. It is reasonable to suspect that the presence of foreign institutional investors will result in a reduction in the number of Capex and R&D where the company invests (investors have an effect on long-term investments)

Hypothesis 2: Foreign institutional investors have an effect on Human Capital which is calculated from the total salaries of employees

Research conducted by [3] states that the increasing ownership of foreign institutional investors can cause pressure to realize short-term profits, causing a risk of being fired by managers.

Hypothesis 3: Foreign institutional investors influence the level of innovation output

Research conducted by [22] explains that foreign institutional investors and company innovation have a positive and significant relationship. [24] proved that there is a positive and significant in Chinese to relationship between foreign institutional investors and innovation firms.

3. RESEARCH METHOD

The research model uses the panel data method (Two Stage Least Square) as in the study. The choice of the two stage least square method in this study is because it is estimated that there is endogeneity in the foreign investor variable, making it difficult to determine the causal effect between the variables of long-term investment, human capital and innovation output with the level of ownership of foreign investors. Foreign institutional investors can invest in companies with good long-term growth prospects or companies that anticipate growth in innovation [6].

Model 1 (hypotheses 1) in this study, specifically are as follows:

- a. $Long\ Term\ Investment = a_0 + IOFOR + IODOM + e$
- b. $IOFOR = a_0 + Long\ Term\ Investment + IODOM + e$

In the above equation Long Term investment refers to Capital Expenditure and Research and Development. Then IO_For is foreign instituional investor and IO_Dom is Domestic institutional investor.

Model 2 (hypotheses 2) in this study, specifically are as follows:

- a. $Human\ Capital = a_0 + IOFOR + IODOM + e$
- b. $IOFOR = a_0 + Human\ Capital + IODOM + e$

In the above equation Human Capital refers to staff cost of corporate. Then IO_For is foreign instituional investor and IO_Dom is Domestic institutional investor.

Model 3 (hypotheses 3) in this study, specifically are as follows:

- a. $Innovation = a_0 + IOFOR + IODOM + e$
- b. $IOFOR = a_0 + Innovation + IODOM + e$

In the above Innovation refers to amoun of patent which listed in DJKI (Direktorat Jenderal Kekayaan Intelektual RI) Then IO_For is foreign instituional investor and IO_Dom is Domestic institutional investor. Variable definition from this research are as follows:

Table 2. Variable Definition

	Definition	Data source / research
Capital Expenditure	$Capex = \frac{Capex}{Total\ Asset}$	Bena et al (2017)
Research& Development	$R\&D = \frac{R\&D}{Total\ Asset}$	Bena et al (2017)
Human Capital	human capital = $\frac{Satff\ Cost}{Sales}$	Bena et al (2017)
Innovation	$Innovation = \text{Number of Patent}$	Bena et al (2017) (Griliches, 1990)
IO_For	$IO\ For = \frac{Foreign\ Investor\ Institution}{Market\ Cap}$	Bena et al (2017)
IO_Dom	$IO\ Dom = \frac{Domestic\ Investor\ Institution}{Market\ Cap}$	Bena et al (2017)

4. DATA ANALYSIS AND DISCUSSION

Descriptive statistic table in table 3 show the variation of the data sample in indonesia.

Table 3. Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev
IO_FOR	0.29	0.06	6.49	0.000	0.986
IO_DOM	0.07	0.05	0.43	0.000	0.96
Long Term Investment	0.060	0.05	0.170	0.000	0.047
Human Capital	0.08	0.080	0.2100	0.000	0.04
Inovasi	2.51	1.000	17.000	1.000	3.07

Source: processed by author (2021)

In general, the average value of foreign investor ownership (IO_FOR) throughout the study period is 0.29 with a maximum foreign ownership of 6.49 and a minimum of 0.0000. This implies that the average ownership of foreign institutional investors when compared to the market cap is 0.289. Meanwhile, the average for the ownership of domestic institutional investors (IO_DOM) throughout the study period is 0.07 and the maximum value is 0.43. This means that the value of ownership of domestic institutional investors is on average smaller than the value of ownership of foreign institutional investors. Meanwhile, the average value of the company's long term investment is 0.060 during the study period. This means that the public companies that are the sample in the study carry out an average long-term investment of 0.060 compared to the company's total assets.

In addition, the average human capital investment is 0.081 with a maximum value of 0.210. Here it can be seen that companies invest more in human capital than long-term investments. For innovation, the average sample company has an innovation of 2.5 patents during the research period. Meanwhile, the maximum number of patents held by the sample companies during the research period was 17 patents.

We performed Chow Test and Hausman Test, and Lagrange Multiplier Test procedures to determine the estimation method for all dependent variable in the study, and concludes that fixed effect model (FEM) estimation method is consistently the best estimation method compared to pooled least square (PLS) and random effect model (REM).

Table 4. Model Regression 1

Model	Variabel	t-statistic	P-Value (Sig)	R-Square
Model a (Long Term Investment)	Konstanta	2.582	0.010*	0.611
	IO_DOM	-0.202	0.839*	
	IO_For	0.414	0.678*	
Model b (IO_For)	Kontanta	5.509	0.000*	0.878
	IO_DOM	14.552	0.000*	
	Long Term Investment	0.414	0.678*	

Source: processed by author (2021)

* Significant at 10% level; ** Significant at 5% level; *** Significant at 1% level

Model 1 regresses between the variable long-term investment as the dependent variable and the variable IO_FOR and IO_DOM as independent variables. The model shows that the variable ownership of IO_FOR and IO_DOM partially does not have a significant effect on the company's long-term long-term investment. These results are in accordance with the research hypothesis and research conducted by [12] and [7] which show that foreign institutional investors will reduce the amount of capital expenditure and research & development in the companies they invest in. In addition, this study also shows a simultaneous relationship between capital

expenditure variables and foreign investment ownership IO_FOR which can be seen from the same t-statistic and P-Value values in model a and model b. These results indicate that foreign institutional investors do not have a significant influence on the company's long-term investment policy.

Table 5. Model Regression 2

Model	Variabel	t-statistic	P-Value (Sig)	R-Square
Model a (Human Capital)	Konstanta	43.570	0.000*	0,649
	IO_DOM	-2.057	0.0407*	
	IO_For	0.112	0.910*	
Model b (IO_For)	Kontanta	1.057	0.291*	0,599
	IO_DOM	2.266	0.024*	
	Human Capital	0.112	0.910*	

Source: processed by author (2021)

* Significant at 10% level; ** Significant at 5% level; *** Significant at 1% level

Human Capital as the dependent variable and the ownership variable IO_FOR and IO_DOM as independent variables. The model shows that the variable ownership of IO_FOR does not have a significant effect on human capital. Meanwhile, IO_DOM have a significant influence on human capital. These results are in accordance with the research hypothesis and are the same as research conducted by [3] which states that the ownership of foreign institutional investors can cause pressure to realize the short-term, causing the risk of being fired on the manager. In addition, this study also shows that there is a simultaneous relationship between the human capital variable and IO_FOR which can be seen from the t-statistics and P-Value values which are the same in model a and model b. These results indicate that domestic institutional human investors have more influence on human capital investment policies in Indonesian public companies.

Tabel 6. Model Regression 3

Model	Variabel	t-statistic	P-Value (Sig)	R-Square
Model a (Inovasi)	Konstanta	4.805	0.000*	0,696
	IO_DOM	-1.312	0.197*	
	IO_FOR	1.548	0.130*	
Model b (IO_For)	Kontanta	-3.073	0.004*	0,981
	IO_DOM	14.149	0.000*	
	Inovasi	1.548	0.130*	

Source: processed by author (2021)

* Significant at 10% level; ** Significant at 5% level; *** Significant at 1% level

Model 3 regresses between the innovation variable as the dependent variable and the ownership variable IO_FOR and IO_DOM as independent variables. The model shows that the ownership variable IO_FOR and IO_DOM partially does not have a significant effect on company innovation. This result is in line with the research conducted by [3] where market pressure factors cause foreign institutional investors to be less tolerant of adverse projects, which has an impact on the attitude of

managers who forget about company innovation. In addition, this study also shows a simultaneous relationship between the innovation variable and IO_FOR which can be seen from the same t-statistic and P-Value values in model a and model b. This results show that foreign institutional investors have not yet become one of the main factors causing the growth of the level of corporate innovation in Indonesia as measured by the level of patents registered with the Directorate General of Intellectual Property (DJKI).

5. CONCLUSION

This research show that there is no significant effect between institutional investors on capital expenditures, human capital, and the level of company innovation. Nevertheless, domestic institutional investors show a positive and significant influence on human capital. From this it can be said that institutional investors have not been proven to be able to influence the long term of the company and the ouput of company innovation in public companies in Indonesia. In addition, the results of this study also show that foreign institutional investors have not yet become one of the main factors causing the growth of the level of corporate innovation in Indonesia as measured by the level of patents registered with the Directorate General of Intellectual Property (DJKI).

This study only uses the ownership of domestic institutional investors and the ownership of foreign institutional investors as independent variables, so that it can be developed in the future by using other variables. For policy makers, it is expected to continue to encourage public and non-public companies in Indonesia, to continue to innovate in the form of patent registration at the Directorate General of Intellectual Property of Indonesia (DJKI), making it easier to conduct research related to innovation.

AUTHORS' CONTRIBUTIONS

The contribution of this research is to add to the literature related to the influence of foreign institutional investors in Indonesia. This study tries to see the influence of foreign institutional investors on the investment and innovation of a company. This study also tries to explain the level of company innovation as proxied by the number of patents owned.

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