The Firm's Behavior and Survival towards Business Performance

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Abstract—This research amis to examine the firm's behavior and the firm's survival to business performance. The firm's behavior reflected on how the firm activities on financial expenses. The firm's survival is indicated with firm's age. Those how they work to accieve business performance. But not only that, the firm's size and growth also mean towards business performance. This reseach analyzes growth, firm size, firm behavior and firm age towards the business performance.

Companies that grow are able to survive. It means that in the future companies will be able to grow along with the dynamic of global economic growth. The larger size of the company, the more ability to manage the company. The behavior is showed by its management identify of finances and the expenses. Then the company age becomes an indicator that company has good resilience.

This study focuses on the business performance in manufacturing companies of Indonesian stock exchange using panel data and pool data regression analysis. The result shows the significant path from all the research variables.

Index Terms—Business performance, growth, firm size, firm behavior, firm age.

I. INTRODUCTION

Companies that grow able to survive. Companies capacity to produce greatly, have the ability to perform. Thus, it is expected that in the future will be able to grow along with the dynamic global economic growth.

Company performance can be assessed by several methods, one of them is financial approach. This is considered very feasible because the company's goal is to make profit.

The company's performance is very important for various parties. One of them is investor who will see company's prospects in the future. The prospect shown on the state of the company that shows the growth and development. Performance as a measure of the results obtained by the company can be shown from their sales. This sale is important because company can create a future outlook in the form of promising business development. It means alot that business performance is the key part of the company succesfull.

Company continuesly grows from time to time. This growth is an expected value for investor. So that growth is one of the important judgments for the company. From its growth, the company can show performance [1], [2]. More than that, they show the promising future succesfullness. Generally it will give effect to become a positive sign of business performance.

Another factor to give an effect for business performance is firm size. The larger size of the company shows that the company has ablility to manage the company well. The good management leads company to have better profits and thus able to develop business from these benefits. The larger size of the company shows greater performance.

Along with the company growth and development, the more capacity to survive they have, the more maturity they get in managing the company. The age factor becomes an indicator that the company has good resilience so that can run a business in an era which is condition full of challenges and threats. The firm age shows the company's capacity to perform and provides a good signal in showing business performance in the business world. The longer the company stands, the more it gives a signal that the company has good performance capacity. So in this case, firm age becomes a research control variable.

Company management means managing and blocking funds according to needs so as to get the expected performance. In addition to the size of the company and the age of the company, the better the behavior of the company is to identify management management that is good for the company's performance. One of the behaviors that the company shows is its behavior in its finances. This behavior is shown by how the company's management operates the business in its daily routine activities. R & D expenditure is one of the important things in the company's growth. Previous studies that have been conducted indicate the results that R & D expenditure has an effect on financial performance [3], [4].

This study examines the company's business performance is influenced by firm growth factors, firm size, firm behavior, and firm age. This study focuses on the business performance of companies in the Indonesian stock exchange, especially in manufacturing companies.

II. LITERATURE REVIEW AND HYPOTHESES

Previous research shows some factors related to performance of a company. Generally research shows factors influence performance. In this research, some factors related to company are explained by firm growth, firm size, firm behaviour, and firm age.

Signaling theory explains that companies can give signals to other parties, namely investors about their good performance [5]. In the business, performance becomes important. It reflects the firm's result for all the activities, and describes the company succesfullness. Each factors i.e firm growth, firm size, firm behavior and firm age in this research takes part of the business performance. Thus the

factors can support giving a positive signal to an effect on performance. Previous studies have shown how firm growth [3], [4], firm size [6], [7], and firm age [3], [8], [9] and firm behavior [1], [2] show a positive direction. Thus the hypothesis is formulated as follows:

H1: There is a significant effect of growth on business performance.

H2: There is a significant effect of firm size on business performance.

H3: There is a significant effect of firm behavior on business performance.

H4: There is a significant effect of firm age on business performance.

III. RESEARCH METHODOLOGY

The study was conducted on manufacturing companies in the Indonesian Stock Exchange during 2016-2017. Panel data is used in research with pool regression analysis. Analyisis is run by pool resgression with Eviews. The dependent variable Y is business performance and measured by sales. The independent variable X1 is firm growth and it is measured by growth. Firm size X2 is measured by natural log assets, X3 firm behavior is measured by dummy R & D expenditure, and X4 age is measured by natural logarithm age.

IV. RESULTS AND DISCUSSION

The study was conducted on 124 data entries for manufacturing companies in Indonesia Stock Exchange during year of 2016-2017. This research uses pooled data regression, with the following results in Table I:

TABLE I: REGRESSION OUTPUT I

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.05566	1.283212	18.74643	0.0000
GROWTH	0.647406	0.342971	1.887640	0.0615
SIZE	0.667413	0.307579	2.169890	0.0320
DRND	3.715407	2.239334	1.659157	0.0997
AGE	0.008005	0.538705	0.014860	0.9882

R-squared	0.101787	Mean dependent var		24.73217
Adjusted R-squared	0.071595	S.D. dependent var		4.965502
S.E. of regression	4.784448	Akaike info criterion		6.008106
Sum squared resid	2724.023	Schwarz criterion		6.121827
Log likelihood	-367.5026	Hannan-Quinn criter.		6.054302
F-statistic	3.371317	Durbin-Watson stat		1.103607
Prob(F-statistic)	0.011875			

Total panel (balanced) observations: 124

The results show that firm growth, firm size and firm behavior have a significant effect on business performance. As for firm age, it has no significant effect. The equation of the regression from Table I presented as follows:

$$Y = 24{,}055 + 0{,}647 \, X1 + 0{,}667 \, X2 + 3{,}715 \, X3 + 0{,}008 \, X4 + e$$

In this case means Y shows an average yield of 24,055. Changes X1, X2, X3, X4 as big as coefficient will cause changes to Y. Coefficient for X1 is 0,647 means firm growth changes will effect to business performance for 0,647. Coefficient for X2 is 0,667 means firm size changes will effect to business performance for 0,667. Coefficient for X3 is 3,175 means firm behavior changes will effect to business performance for 3,175. Coefficient for X4 is 0,008 means firm age changes will effect to business performance for 0,008.

Thus the performance is effected by the factors of firm growth, firm size, firm behavior, and firm age. The test results show that firm growth has an effect with a probability value of 0.06 at a significance value of 0.1. For the variable firm size with a probability of 0.032, the firm size has a significant effect on the significance value of 0.05, so does the firm behavior variable that dummy R & D expenses have a significant effect on the significance level of 0.05. Whereas the firm age variable in this study conclude that did not significantly effect sales. This result can be explained that with good product conditions and good promotion, age is not a guarantee to get good sales. Companies with a young age are also able to produce good sales when products can be accepted in the community.

Acceptance of H1 that firm growth effects business performance can explain and support previous research [1], [2]. Business growth is a signal that the company has a good business performance. Positive growth gives hope in the future that companies can develop and advance. This also indicates that companies can manage finances well so that they get good performance results. Business requires a high demand for promising future. A company that has growth is a company that can give what is expected from some parties not except investors. By its growth, company give a promising future to the investors. It also will give impact to new investors to invest in the company because the growth means a company not only survive but also improve. In this research, growth for manufacturing companies in Indonesia Stock Exchange has positive effect to business performance. Capital market will achive it as good information to become a signal for investors.

Acceptance of H2 which states that firm size has a positive effect on business performance supports previous research [3]. Thus, it shows that companies with large assets indicate that they are able to manage their assets to improve their performance. The greater the effort, the more business success can be measured by performance. A company manage the assets well, so that the assets is valuable for company to get profit. Profitable company have assets more and larger than before. In this time, the company that have more assets will have change to have higher capital. Thus will up the business fund and up the operational activities. In the other hand, higher assets leads to have greater company image and value that supports business performance.

Acceptance of H3 is that the firm behavior effects business performance. Firm behavior is shown by the dummy R & D expenses shows that companies that allocate

their financial behavior to R & D expenses have an effect on good performance.

Whereas in the H4, the firm age shows the rejection of hypothesis. That there is no significant influence of firm age on business performance. If you look again at the performance measurement in this study using sales. Where sales achievement does not have to be measured with increasing age. New companies probable to provide good results of sales.

Output for busienss performance according to Table I include all factors in this research. Based on the result, that age is not significant, and to describe the difference, here Table II shows regression output without age as control variabel. The result here in Table II.

TABLE II. REGRESSION OUTPUT II

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GROWTH	0.646622	0.337475	1.916061	0.0577
SIZE	0.667669	0.305814	2.183251	0.0310
DRND	3.720779	2.200732	1.690701	0.0935
C	24.07320	0.500057	48.14089	0.0000
R-squared	0.101785	Mean dependent var		24.73217
Adjusted R-squared	0.079330	S.D. dependent var		4.965502
S.E. of regression	4.764476	Akaike info criterion		5.991978
Sum squared resid	2724.028	Schwarz criterion		6.082955
Log likelihood	-367.5027	Hannan-Quinn criter.		6.028935
F-statistic	4.532780	Durbin-Watson stat		1.103238
Prob(F-statistic)	0.004780			

Total panel (balanced) observations: 124

Result shows the difference R Adj Square in Table I and Table II. Table II shows R Adj Square is 0,079. Generally, firm age is a symbol of firm survival. The longer time it means the more ability to survive.

The significancy from each variable is significant. Additionally, result indicates that another factors should be explored in the next reserach to get the factors effecting the business performance. Moreover, extended research period for future research make it more valuable.

V. CONCLUSION

This study shows the results of the test that the firm growth, firm size and firm behavior have significantly effect to business performance. In this case it supports several previous studies and existing theories. Thus business performance can be improved according to the expected target by concerned on the factors that are influenced. In this research, result for firm age was not significantly effects

the business performance, but in some previous reserach it is indicated. So that, in the fuuture research can use longer period to examine the involved of firm age to the company. On the other hand, in this reserach the firm age that reject the hypotheses, it can be explain that new companies probable to provide good results of business performance.

REFERENCES

[1] H. R. Greve, "A behavioral theory of firm growth: Sequential attention to size and performance goals," *Academy of Management Journal,* vol. 51, no. 3, pp. 476-494, 2008.
[2] M. S. Freel and P. J. Robson, "Small firm innovation, growth and performance: Evidence from Scotland and Northern England," *International Small Business Journal,* vol. 22, no. 6, pp. 561-575, 2004.
[3] T. Yasuda, "Firm growth, size, age and behavior in Japanese manufacturing," *Small Business Economics,* vol. 24, no. 1, pp. 1-15, 2005.
[4] S. Rafiq, R. Salim, and R. Smyth, "The moderating role of firm age in the relationship between R&D expenditure and financial performance: Evidence from Chinese and US mining firms," *Economic Modelling,* vol. 56, pp. 122-132, 2016.
[5] S. A. Ross, "The determination of financial structure: the incentive-signalling approach," *The Bell Journal of Economics,* pp. 23-40, 1977.
[6] N. Daskalakis and M. Psillaki, "Do country or firm factors explain capital structure? Evidence from SMEs in France and Greece," *Applied Financial Economics,* vol. 18, no. 2, pp. 87-97, 2008.
[7] E. Claver, J. Molina, and J. Tarí, "Firm and Industry effects on firm profitability: A Spanish empirical analysis," *European Management Journal,* vol. 20, no. 3, pp. 321-328, 2002.
[8] N. Michaelas, F. Chittenden, and P. Poutziouris, "Financial policy and capital structure choice in UK SMEs: Empirical evidence from company panel data," *Small Business Economics,* vol. 12, no.2, pp. 113-130, 1999.
[9] G. C. Hall, P. J. Hutchinson, and N. Michaelas, "Determinants of the capital structures of European SMEs," *Journal of Business Finance & Accounting*, vol. 31, no. 5-6, pp. 711-728, 2004.

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