Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran
Volume 9, Issue 1, January-June 2022, Pages 265-274
Homepage: http://ojs.unm.ac.id/index.php/administrare/index

The Influence of Intellectual Capital, Firm Size, and Leverage on Profitability in Poultry Industry Subsector Companies

Dessy Adelin[1], Zulfitra[2], Sahroni[2]
[1]IKPIA Perbanas Jakarta, Indonesia
[2]Pamulang University, Indonesia
Email : dessy.adelin@perbanas.id

ABSTRACT

This study aims to examine the effect of intellectual capital, firm size, and leverage on profitability in poultry industry sub-sector companies listed on the Indonesia Stock Exchange for the period 2012-2020. The analysis used in this study uses a fixed effect model with panel data regression analysis.The results showed that Intellectual Capital had no significant effect on profitability. Company size has a negative and significant effect on profitability (ROA). Leverage (DER) has a negative and significant effect on changes in Profitability (ROA) of Intellectual Capital (VAIC), Firm Size (FSZ) and Leverage (DER) together have a positive and significant effect on changes in Profitability (ROA) in listed Poultry Companies on the Indonesia Stock Exchange (IDX) during the period 2012-2020. The coefficient of determination shows the results of 81.36%.

Keywords : Intellectual Capital; Company Size; Leverage; Profitability

INTRODUCTION

The manufacturing industry is an industry that dominates companies listed on the Indonesia Stock Exchange (IDX) (Abas et al., 2020; Hadiningtiyas & Mahmud, 2017; Septyanto et al., 2020; Siregar & Dewi, 2019). Around 131 companies in the manufacturing industry are grouped into several industrial sub-categories. The number of companies in the industry, as well as the current economic conditions have created a tight competition between manufacturing companies, including companies in the consumer goods sector (Acuti et al., 2020; Arena, 2007; Hurwitz et al., 2016; Kalkavan et al., 2015; Lestari & Khafid, 2021). Consumer goods companies are non-cyclical companies, meaning that this industrial sector is relatively more stable and not easily affected by seasons or changes in economic conditions such as inflation. Even though inflation occurs, the smooth running of consumer goods industry products will still be guaranteed, because this industry is engaged in the basic human field (Jasmani et al., 2020; Jasmani & Sunarsi, 2020; Sunarsi & Baharuddin, 2019).

This is because the public's need for consumption will not stop under any circumstances, seeing this condition, many companies want to enter the sector, so that competition cannot be avoided. For this reason, consumer goods companies must be able to regulate and manage their companies well and can survive in intense competition in order to give confidence to investors that the company can be used as an investment target with promising future prospects and to achieve company goals.

One of the goals of a company is to get maximum profit. To achieve this goal, management with a high level of effectiveness is needed in order to maximize the profits earned by the company, financial managers need to know the factors that have a major influence in

obtaining company profits by knowing the influence of each factor the company can determine steps to overcome problems and minimize negative impacts.

The company's profitability ratios can monitor the company's development from time to time. A high level of profitability in a company means that the efficiency of the use of capital is also high. used by the company. So every company will try to increase its profitability, because the higher the level of profitability of a company, the company's survival will be more guaranteed. An increase in the company's profitability makes managers have to maintain the factors that can provide profits to the company. These factors are very important in advancing the development of the company by increasing profits and avoiding the risk of bankruptcy of the company.

The rapid progress of the world economy is followed by advances in technology and continuous growth of innovation. This progress resulted in a high level of business strategy competition between companies. In facing this competition, companies are starting to realize that the ability to compete in the industry lies not only in its tangible assets, but also on intangible assets. Companies that change their business based on labor (labor based business) to business based on knowledge (knowledge based business) as a form of intangible asset, is the company's effort to survive and compete competitively with other companies. .

Labor based business using the principle of a labor-intensive company, which means that the more employees the company has, the more productive the company will be so that the company can grow. Meanwhile, companies that apply knowledge-based business principles will create a way to manage knowledge as a means to earn their income (Adams & Lamont, 2003; Escribano et al., 2009; Lin, 2007; Mintzberg, n.d.). By using science and technology, a way to use other resources efficiently and economically can be obtained which can later give an advantage in competition (Curran, 2000; Hunt, 1999; Urbancova, 2013).

The importance of the role and contribution of intangible assets can be seen from the comparison between book value and market value in knowledge-based companies. One approach used in the valuation and measurement of intangible assets is Intellectual Capital (Arini & Musdholifah, 2018; Ganawati et al., 2021; Tjahjadi et al., 2019). The company's long-term goal is to optimize the value of the company which is reflected in the market price of its shares. An increase in the difference between the stock price and the book value of assets owned by the company indicates a hidden value. The value of the company if it is judged from the physical only then the results will not be in accordance with the market value because there are values other than physical or intangible that affect it.

In Indonesia, there are still no specific regulations governing the recognition, measurement and disclosure of Intellectual Capital (IC). Intellectual Capital (IC) began to develop, especially after the emergence of PSAK No. 19 (revised 2010) which came into effect on January 1, 2011 replacing PSAK No. 19 (revised 2000): Intangible Assets. This PSAK determines the accounting treatment of intangible assets that are not specifically regulated in other PSAKs. This Statement sets out the procedures for recognizing, measuring and disclosing intangible assets. Although not explicitly stated as Intellectual Capital (IC), more or less Intellectual Capital (IC) has received attention. According to PSAK No. 19,

Paragraph 09 of PSAK No. 19 mentions several examples of intangible assets, including science and technology, design and implementation of new systems or processes, licenses, intellectual property rights, market knowledge and trademarks (including product brands/brand names). In addition, computer software, patents, copyrights, animated films, customer lists, forest

concession rights, import quotas, franchises, relationships with suppliers or customers, customer loyalty, marketing rights and market share are also added. Although PSAK 19 (revised 2010) which implicitly mentions Intellectual Capital (IC) and has been introduced since 2000, in the world of practice Intellectual Capital is still not widely known in Indonesia. Companies in Indonesia tend to use conventional based in building their business. So that the resulting product is still poor in technology content, besides that these companies have not given more attention to human capital, structural capital and customer/physical capital. In fact, all of these are elements of building the company's Intellectual Capital (IC).

*Growth*is an important indicator of market acceptance of the company's fund products or services, where the income generated from sales will be used to measure the level of sales growth. Sales growth reflects the manifestation of past investment success and can be used as a predictor of future growth. Sales growth is also an indicator of demand and competitiveness of companies in an industry. The growth rate of a company will affect the ability to maintain profits in funding opportunities in the future. By knowing how much sales growth, the company can predict how much profit it will get.

From the condition of achieving the percentage of profitability ratios in consumption sector companies, it can be depicted in Figure 1.

Source: IDX Consumer Goods Manufacturing Sector, 2018 (processed)

Figure 1. The Development of Average Company Growth in Consumer Goods Sector Companies in 2012-2016

In the graph above, it can be seen that during 2012-2016 the growth of manufacturing companies in the consumer goods sector experienced fluctuating developments on average. The highest percentage of company growth was obtained by PT Tiga Pilar Sejahtera Food Tbk, which reached 24.32%, while the lowest achievement occurred at PT Merck Indonesia Tbk which reached 2.23%.

Company size affects the company's ability to obtain additional external capital to finance the company's operational activities. The size of the company describes the size of a company (Ciampi et al., 2021; Hummels & Argyrou, 2021; Rossi et al., 2020). Larger companies will find it easier to obtain external funds in the form of large amounts of debt so that it will help the company's operational activities and cause company productivity to increase so that company profitability will also increase.

Profit is the company's ability to fulfill obligations to its funders which shows the value or prospects of the company in the future. Therefore, investors will only invest their funds in companies that have a good reputation. Companies that have a good reputation are companies that are able to increase company profits and provide dividends constantly to shareholders. The higher the profit achieved by the company, the higher the share price of the company.

Research on sales growth that has been carried out by (Ramlah, 2021) argues that sales growth has a positive and significant effect on profitability. However, different results were found by (A Ngampo & Sahade, 2020; Aupperle et al., 1985; Margaretha & Supartika, 2016; Sari & Sedana, 2020) who found that sales growth had a negative and insignificant effect on company profitability. Based on this description, this study aims to determine the effect ofintellectual capital, growth company, company size and leverage on profitability in consumption sector

companies in the poultry industry sub-sector listed on the Indonesian stock exchange in 2012-2020.

METHOD

This study examines the effect of firm size and debt policy on profitability with firm value as an intervening variable in poultry industry companies listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020. The population used in this study are poultry companies listed on the Indonesia Stock Exchange during the period 2012-2020. part of a population is a sample. The sampling method used in this study is to use a non-probability sampling method with the selected sampling technique is purposive sampling. is a pre-determined sampling technique based on the aims and objectives of the study and selected based on certain criteria.

The company's criteria included in the sampling of this study are: 1) The sample of this study is a poultry company that has been listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020 and has not withdrawn from the stock (go-private), 2) The sample has a complete annual report for the period January 1 to December 31 for the time period 2012-2020, this is used for data uniformity and partial distortion of time, and 3) The sample is a poultry company that has financial reports and annual reports published publicly. continuously during the period 2012-2020.

Table 1. Sampling Process

No.	Sample Characteristics	Amount
1	Number of poultry companies listed on the Indonesia Stock Exchange for the 2012-2020 period	4
2	Companies that do not have a complete annual report on the Indonesia Stock Exchange in 2012-2020	0
	Final Sample Quantity	**4**

Source: Indonesia Stock Exchange, secondary data processed

Based on the sample selection criteria above, there are 4 poultry companies as samples in this study as shown in table 2. which will then be analyzed using panel data regression.

Table 2 Research Sample

No.	Stock code	Company name
1	SIPD	PT Sreeya Sewu Indonesia Tbk
2	CPIN	PT Charoen Pokphan Indonesia Tbk
3	PLAY	PT Malindo Feedmill Tbk
4	JPFA	PT Japfa Comfeed Indonesia Tbk

Source:BEI

RESULT AND DISCUSSION

Panel Data Regression

The model used is the Fixed Effect Model (FEM) in the panel data regression method which is used further to estimate and analyze the effect of intellectual capital, firm size and debt policy on profitability, with the output results and conclusions, as follows:

Table 3. Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
VAIC?	0.000560	0.000784	0.714298	0.4808
FSZ?	-0.111820	0.017470	-6.400605	0.0000
DER?	-0.114752	0.018179	-6.312293	0.0000
C	3.530999	0.526423	6.707527	0.0000
Fixed Effects (Cross)				
SIPD--C	-0.132386			
CPIN--C	0.100520			
PLAY--C	-0.083944			
JPFA--C	0.115810			

Effects Specification
Cross-section fixed (dummy variables)

Weighted Statistics			
R-squared	0.813617	Mean dependent var	0.119738
Adjusted R-squared	0.775055	SD dependent var	0.130863
SE of regression	0.045891	Sum squared resid	0.061075
F-statistics	21.09890	Durbin-Watson stat	1.732720
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.641337	Mean dependent var	0.061792
Sum squared resid	0.062402	Durbin-Watson stat	2.046639

Information:

Dependent Variable: ROA?
Method: Pooled EGLS (Cross-section weights)
Date: 10/25/21 Time: 11:39
Samples: 2012 2020
Included observations: 9
Cross-sections included: 4
Total pool (balanced) observations: 36
Linear estimation after one-step weighting matrix

Source: Eviews 9 data processing results

Partial Panel Data Regression Model (t Test)

The results of the estimation of the influence of intellectual capital, firm size and debt policy on profitability using the Fixed Effect Model (FEM) can be written in the following equation:

Estimation Equation:

==========

ROA = C(1)*VAIC + C(2)*FSZ+ C(3)*DER + C4

Substituted Coefficients:

==========

ROA = 0.000560*VAIC - 0.111820*FSZ- 0.114752*DER + 3.530999

ci= Fixed Effect Constant of the i-th firm, i = 1, ...4

Table 4. Estimating Factors Affecting ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
VAIC?	0.000560	0.000784	0.714298	0.4808
FSZ?	-0.111820	0.017470	-6.400605	0.0000
DER?	-0.114752	0.018179	-6.312293	0.0000
C	3.530999	0.526423	6.707527	0.0000
Fixed Effects (Cross)				
SIPD--C	-0.132386			
CPIN--C	0.100520			
PLAY--C	-0.083944			
JPFA--C	0.115810			

Effects Specification			
Cross-section fixed (dummy variables)			
Weighted Statistics			
R-squared	0.813617	Mean dependent var	0.119738
Adjusted R-squared	0.775055	SD dependent var	0.130863
SE of regression	0.045891	Sum squared resid	0.061075
F-statistics	21.09890	Durbin-Watson stat	1.732720
Prob(F-statistic)	0.000000		
Unweighted Statistics			
R-squared	0.641337	Mean dependent var	0.061792
Sum squared resid	0.062402	Durbin-Watson stat	2.046639

Information:

Dependent Variable: ROA?
Method: Pooled EGLS (Cross-section weights)
Date: 10/25/21 Time: 11:39
Samples: 2012 2020
Included observations: 9
Cross-sections included: 4
Total pool (balanced) observations: 36
Linear estimation after one-step weighting matrix

Source: Eviews 9 data processing results

From the above equation, further testing of each Fixed Effect Model regression coefficient that affects Profitability (ROA) using the t test. T test is used to determine whether each independent variable used in this study can partially affect profitability (ROA) as the dependent variable significantly with 95% confidence level or alpha equal to 5% (a = 0.05). For the effect of VAIC, Firm Size (FSZ) and Debt to Equity Ratio (DER) variables on PBV with ROA as the intervening variable, each will be interpreted and compared with the research hypothesis,

Based on the t-test, it shows that the Intellectual Capital (VAIC) variable has no significant effect on profitability (ROA) in poultry companies for the 2012-2020 period, with a regression coefficient value of 0.000560, this is indicated by the t-statistic probability value of 0.714298 and the probability value (Prob.) of 0.4808 is greater than a = 0.05 (0.4808 > 0.05) so that H1 is rejected or H0 is accepted. The regression coefficient value of the variable Intellectual Capital (VAIC) on ROA is 0.000560, indicating that every increase in the variable Intellectual Capital (VAIC) achieved by poultry companies will result in an increase in ROA of poultry companies, but this increase has no significant effect.

Based on the t-test shows that the variable Firm Size (FSZ) has a negative and significant effect on profitability (ROA) in poultry companies for the period 2012-2020, with a regression coefficient value of -0.111820, this is indicated by a probability value of t-statistic of -6.400605 and the probability value (Prob.) of 0.0000 is smaller than a = 0.05 (0.0000 < 0.05) so that H1 is accepted or H0 is rejected. The regression coefficient value of the Company Size (FSZ) variable on ROA Profitability is -6.400605, indicating that every increase in Company Size (FSZ) achieved by poultry companies will result in a significant decrease in profitability (ROA) of poultry companies.

Based on the t-test shows that the DER variable has a negative and significant effect on profitability (ROA) in poultry companies for the 2012-2020 period, with a regression coefficient value of -0.114752, this is indicated by the t-statistic probability value of -6.312293 and the probability value (Prob .) of 0.0000 is smaller than a = 0.05 (0.0000 < 0.05) so that H1 is accepted or H0 is rejected. The regression coefficient value of the DER variable on ROA is -0.114752, indicating that every increase in Leverage (DER) achieved by poultry companies will result in a decrease in ROA of poultry companies.

Based on the regression coefficient test of the Fixed Effect Model (FEM) data panel, jointly testing the independent variables, namely Intellectual Capital (VAIC), Firm Size (FSZ) and Leverage (DER) on Profitability (ROA) which is entered into the research model using F test (Simultaneous Test). The results of the F test show the F-Statistic value of 21.09890 with a probability value (Prob F-Statistic) of 0.000000 which is smaller than a = 0.05 (0.000000 < 0.05)

which means H0 is rejected or H1 is accepted. This shows that the variables Intellectual Capital (VAIC), Firm Size (FSZ) and Leverage (DER) together have a significant positive effect on the profitability (ROA) of poultry companies listed on the Indonesia Stock Exchange (IDX). For testing the coefficient of determination (R2) or producing a value of 0.813617,

CONCLUSION

Intellectual Capital (VAIC) has no significant effect on Profitability (ROA) of Poultry Companies listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020. Company Size (FSZ) has a negative and significant effect on Profitability (ROA) of Poultry Companies listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020. Leverage (DER) has a negative and significant effect on changes in Profitability (ROA) of Poultry Companies listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020. Intellectual Capital (VAIC), Firm Size (FSZ) and Leverage (DER) together have a positive and significant effect on changes in Profitability (ROA) of Poultry Companies listed on the Indonesia Stock Exchange (IDX) during the period 2012-2020.

REFERENCES

A Ngampo, M. Y., & Sahade, S. (2020). The Influence of Cooperative Expenses on Profitability at KPRI colleges in Makassar City. *Jurnal Office: Jurnal Pemikiran Ilmiah Dan Pendidikan Administrasi Perkantoran*, *7*(1), 11–20.

Abas, H., Kawatu, F. S., & Kewo, C. L. (2020). Analysis of Profit Growth of Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX) for 2013-2017 Period. *International Journal of Applied Business and International Management (IJABIM)*, 72–78.

Acuti, D., Bellucci, M., & Manetti, G. (2020). Company disclosures concerning the resilience of cities from the Sustainable Development Goals (SDGs) perspective. *Cities*, *99*, 102608. https://doi.org/https://doi.org/10.1016/j.cities.2020.102608

Adams, G. L., & Lamont, B. T. (2003). Knowledge management systems and developing sustainable competitive advantage. *Journal of Knowledge Management*, *7*(2), 142–154. https://doi.org/10.1108/13673270310477342

Arena, C. (2007). *The high purpose company*. Gramedia Pustaka Utama.

Arini, Y., & Musdholifah, M. (2018). Pengaruh intellectual capital dan good corporate governance terhadap nilai perusahaan melalui kinerja keuangan (Studi pada perusahaan subsektor perbankan yang listing di BEI periode 2013-2016). *Jurnal Ilmu Manajemen (JIM)*, *6*(3), 227–240.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). an Empirical Examination of the Relationship Between Corporate Social Responsibility and Profitability. *Academy of Management Journal*, *28*(2), 446–463. https://doi.org/10.2307/256210

Ciampi, F., Demi, S., Magrini, A., Marzi, G., & Papa, A. (2021). Exploring the impact of big data

analytics capabilities on business model innovation: The mediating role of entrepreneurial orientation. *Journal of Business Research*, *123*, 1–13. https://doi.org/https://doi.org/10.1016/j.jbusres.2020.09.023

Curran, P. J. (2000). Competition in UKhigher education: Competitive advantage in the research assessment exercise and Porter's diamond model. *Higher Education Quarterly*, *54*(4), 386–410.

Escribano, A., Fosfuri, A., & Tribó, J. A. (2009). Managing external knowledge flows: The moderating role of absorptive capacity. *Research Policy*, *38*(1), 96–105.

Ganawati, N., Soraya, D., & Yogiarta, I. M. (2021). The Role of Intellectual Capital, Organizational Learning and Digital Transformation on the Performance of SMEs in Denpasar, Bali-Indonesia. *International Journal of Science and Management Studies (IJSMS)*, *June*, 235–246. https://doi.org/10.51386/25815946/ijsms-v4i3p122

Hadiningtiyas, S. W., & Mahmud, A. (2017). Determinant of environmental disclosure on companies listed in Indonesia Stock Exchange (IDX). *Accounting Analysis Journal*, *6*(3), 380–393.

Hummels, H., & Argyrou, A. (2021). Planetary demands: Redefining sustainable development and sustainable entrepreneurship. *Journal of Cleaner Production*, *278*, 123804. https://doi.org/https://doi.org/10.1016/j.jclepro.2020.123804

Hunt, S. D. (1999). The strategic imperative and sustainable competitive advantage: public policy implications of resource-advantage theory. *Journal of the Academy of Marketing Science*, *27*(2), 144–159. https://doi.org/10.1177/0092070399272003

Hurwitz, L. B., Morales, E. D., Montague, H., Lauricella, A. R., & Wartella, E. (2016). Mobile marketing to children: a content analysis of food and beverage company apps. *Public Health*, *141*, 241–244. https://doi.org/https://doi.org/10.1016/j.puhe.2016.09.025

Jasmani, J., & Sunarsi, D. (2020). The Influence of Product Mix, Promotion Mix and Brand Image on Consumer Purchasing Decisions of Sari Roti Products in South Tangerang. *PINISI Discretion Review*, *1*(1), 165–174.

Jasmani, J., Sutiman, S., & Sunarsi, D. (2020). Analysis of the Effect of Prices, Promotions and Products on Purchase Interest Impacts on Consumer Satisfaction of VIVO Brand Mobile Phones in South Tangerang Region. *Jurnal Ad'ministrare*, *7*(1), 73–82.

Kalkavan, S., Katrinli, A., & Çetin, S. S. (2015). Structural Transformation of Turkish Insurance Sector and Leadership & Coaching Applications for Human Resources Competency Development: Güneş Insurance Company. *Procedia - Social and Behavioral Sciences*, *210*, 241–250. https://doi.org/https://doi.org/10.1016/j.sbspro.2015.11.364

Lestari, S. P., & Khafid, M. (2021). The Role of Company Size in Moderating the Effect of Profitability, Profit Growth, Leverage, and Liquidity on Earnings Quality. *Accounting Analysis Journal*, *10*(2), 86–93.

Lin, H. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*.

Margaretha, F., & Supartika, N. (2016). Factors affecting profitability of small medium enterprises (SMEs) firm listed in Indonesia Stock Exchange. *Journal of Economics, Business and Management*, *4*(2), 132–137.

Mintzberg, H. (n.d.). *HarvardBusinessReview MANAGING GOVERNMENT , GOVERNING MANAGEMENT WHY DO EMPLOYEES RESIST CHANGE ? RULING THE NET MAKING LOCAL KNOWLEDGE GLOBAL*.

Ramlah, R. (2021). The Effect of Profitability and Leverage on Stock Return of Food and Beverage Companies. *Point of View Research Management*, *2*(2), 139–150.

Rossi, M., Nandhakumar, J., & Mattila, M. (2020). Balancing fluid and cemented routines in a digital workplace. *The Journal of Strategic Information Systems*, *29*(2), 101616. https://doi.org/https://doi.org/10.1016/j.jsis.2020.101616

Sari, I. A. G. D. M., & Sedana, I. B. P. (2020). Profitability and liquidity on firm value and capital structure as intervening variable. *International Research Journal of Management, IT and Social Sciences*, *7*(1), 116–127.

Septyanto, D., Nugraha, I. M., & Triandewo, M. A. (2020). How corporate risk management and other factors have an impact on the value of property and real estate companies listed on the Indonesia Stock Exchange (IDX) during 2015–2018. *Southeast Asia Journal of Contemporary Business, Economics, and Law*, *23*(1), 188–200.

Siregar, R., & Dewi, A. (2019). Analysis of the effect of fundamental financial ratio of ROA, DER, CR, TATO, and PBV on stock return of plantation sub-sector industry at IDX 2014-2017. *International Journal of Innovative Science and Research Technology*, *4*(7), 405–414.

Sunarsi, D., & Baharuddin, A. (2019). The Effect of Service Quality and Price Accuracy on Consumer Confidence and Implications for Sales Increase. *PINISI Discretion Review*, *3*(2), 101–110.

Tjahjadi, B., Soewarno, N., Astri, E., & Hariyati, H. (2019). Does intellectual capital matter in performance management system-organizational performance relationship? Experience of higher education institutions in Indonesia. *Journal of Intellectual Capital*.

Urbancova, H. (2013). Competitive Advantage Achievement through Innovation and Knowledge. *Journal of Competitiveness*, *5*(1), 82–96. https://doi.org/10.7441/joc.2013.01.06