

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies



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ABSTRACT: This study aims to examine the effect of *intellectual capital* (VAICTM), firm size (Ln(TA)), and *capital structure* (DER) on financial performance (ROA) mediated by exchange rate in *personal care and household* companies listed on the Indonesia Stock Exchange (IDX) during the period 2016-2021 with a population of 9 companies. This study uses a comparative causal research type. The sampling technique of this study uses a *non-probability sampling* method using a saturation sample type, which is formed homogeneously by being selected based on predetermined criteria so that as many as five *personal care and household* companies for the 2016-2021 period were obtained. This study uses a quantitative data analysis technique to acquire secondary data from the company's financial statements using the SPSS application program version 25. The results of this study show that *intellectual capital* (VAICTM) has a positive and significant effect on the financial performance of *personal care and household* companies, the firm size (Ln(TA)) has a positive and significant effect on the financial performance of *personal care and household* companies, while *capital structure* (DER) has a negative and insignificant effect on the financial performance of *personal care and household* companies. Moreover, *intellectual capital* (VAICTM) mediated by exchange rate has a positive and significant effect on the financial performance of *personal care and household* companies, the firm size (Ln(TA)) mediated by exchange rate has a positive and significant effect on the financial performance of *personal care and household* companies, while *capital structure* (DER) mediated by exchange rate has a negative and insignificant effect on the financial performance of *personal care and household* companies.

KEYWORD: IC, UP, DER, Exchange Rate, and ROA

INTRODUCTION

The growth of an increasingly modern era has been a driving force behind the expansion of Indonesia's *Personal Care and Household* industry, which is expected to continue its upward trajectory. As a result of the growth in the number of companies operating in the *Personal Care and Household* industries, significant competition in the business sector has evolved. The emergence of business company competitors will lead to an increase in economic performance, which will, in effect, result in price competition among businesses of *Personal Care and Household* industrial companies. Businesses that cannot keep up with the ever-increasing level of competition in their industry are likely to collapse. In Indonesia, businesses in the *Personal Care and Household* industries play a significant supporting function role in the beauty industry as well as meeting the demands of household needs, this is due to the fact that the vast majority of those products within the industry are still used regardless of whether or not there is an ongoing crisis, there are still numerous consumers who use beauty products and household products regularly, despite the fact that these products are not considered fundamental necessities for daily living. Because of the proliferation of different kinds of beauty products, body care products, and household products, it has become an essential human need in this *millennial* period, this is especially true for women, who have contributed for these items being highly popular, which in turn causes them to become a trend among millennials. This may increase demand for beauty products, body care products, and household products. The prevailing conditions have resulted in a highly competitive business landscape, hence, company managers engage in a competitive process looking for investors to fulfilling the investment capital. Several issuers have rescinded their investment funds in the company, which affects the company's deteriorating financial performance. Enhancing a company's financial performance and gaining a competitive edge in the market are the skills that necessitate business professionals to possess.

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

Maximizing profits is a primary objective for companies, which is contingent upon their ability to meet company goals effectively. According to Kasmir (2017: 202), the company must possess management expertise in achieving a return on investment, this can be accomplished by assessing the level of productivity of the funds under its management. The profitability of a company is reliant upon the utilization of its assets in their operational activities. A good financial performance can be achieved by maintaining a balance between the net profit derived from a company's assets, this implies that the ability to procure company-owned assets can result in substantial profits. The table below displays the financial performance data of companies in the *Personal Care and Household* industry :

Table 1 Return on Asset (ROA) data for Personal Care and Household Companies during the period of 2016-2021 (stated in %)

Company Code	Return on Asset (ROA)						Mean
	2016	2017	2018	2019	2020	2021	
UNVR	38,16	37,05	46,66	35,80	34,89	30,20	37,13
VICI	-	-	-	14,34	15,46	17,77	7,93
KINO	5,51	3,39	4,18	10,98	2,16	1,88	4,68
TCID	7,42	7,58	7,08	5,69	-2,37	-3,33	3,68
MRAT	-1,15	-0,26	-0,44	0,02	-1,21	0,06	-0,50
MBTO	1,24	3,16	-17,61	-11,33	56,76	-0,11	5,35
KPAS	0,62	1,52	0,35	0,22	-1,93	-	0,13
FLMC	-	-	-	4,42	6,37	-	1,80
UCID	-	-	2,52	4,79	4,08	6,10	2,92
Mean	5,75	5,83	4,74	7,21	12,69	5,84	7,01

Source: Secondary Data, processed, 2022.

The data presented in Table 1 demonstrate that the calculation of *Return on Assets*, derived from the company's overall financial performance, has experienced instability and fluctuations due to intense business competition. There was a decrease in 2021 compared to the value of all businesses involved in *personal care and household* over the 2016–2021 period. Which means, it indicates a decrease in the company's profit as compared to its past performance, with the *Return on Assets* (ROA) serving as a measure of the company's operations. In accordance with Kasmir (2017:203), the industry's average *Return on Assets* (ROA) is 30%. The data of the *Personal Care and Household* industry during the 2016-2021 period indicates that a majority of the companies in this sector have positions significantly below the industry *mean*; precisely, eight companies are positioned below the industry *mean*. PT Unilever Indonesia Tbk (UNVR) is one of the industries with a position that surpasses the industry *mean*. The present situation indicates low-profit margins due to low asset turnover within the company.

A company's performance is an expression of effective management control aimed at attaining the targeted profitability. A substantial profit signifies an enhancement in the financial performance of the company. The company's return on total assets owned is reflected in a higher rate of return on investment; circumstances like these indicate good financial performance in the company's operations. Rudianto (2013: 189) explains that establishing financial health standards necessitates an assessment of the company's overall financial performance over a particular period of time by measuring the extent to which operational activities contribute to the achievement of the company's success. The achievement of profits during a particular period of time is an essential component in ensuring that every entity meets the anticipated high financial performance standards. This study examined various factors that affect financial performance, such as *intellectual capital*, firm size, and *capital structure*.

Intellectual capital refers to *intangible assets*, such as knowledge, ideas, and insights, which have the potential to enhance competitiveness and improve business performance within a company. *Intellectual capital* functions as a source of knowledge, encompassing the collective ideas of employees and the infrastructure capabilities that contribute significantly to the success of businesses in generating *value* within their company (Ulum, 2009:23). Enhanced financial performance makes the perspective of *intellectual capital* strategy in creating and using *knowledge* to bring *value-added* and benefits to the company. According to Habibah (2016) and Saragih and Sihombing (2021), the preceding journal description proposed that *intellectual capital* exerts a significant effect on financial performance, however, Putri (2019) research yielded contrasting results, indicating that *intellectual capital* holds no significant effect over company value.

The firm size is demonstrated through its measurement, which serves as an indicator of the scale of the total amount of assets owned by the company. Hery's (2017:11) revealed that investors tend to prioritize larger businesses due to the perceived

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

ease of obtaining funding from both internal and external sources. The firm size has an effect on its ability to assess the benefits acquired as a greater firm size translates to increased capacity for dealing with business challenges through enhanced performance capabilities. The preceding journal description, as proposed by Sihombing and Purba (2021), Chalise and Adhikari (2022), and Muslimah and Asandimitra (2017), expounds on the significant effect of firm size on financial performance. This finding is consistent with the research conducted by Putri (2019), which similarly highlights the significant effect of firm size on company value, however, the findings of Amalia's (2021) research and Saragih and Sihombing's (2021) indicate that the effect of company size on financial performance is insignificant, contrasting with the statement mentioned earlier.

The *Capital Structure* of a company refers to the company's source of capital obtained from a combination of *debt* and *equity*. According to (Fahmi, 2017:178), a robust capital structure that carefully considers the origin of funds can signify a company's superior long-term competitiveness toward its rivals. Identifying the optimal mixture of debt and equity for company finances is an essential key in the context of *capital structure discussion*, which is a fundamental aspect of financial planning decisions. In the preceding journal description, as proposed by Muslimah and Asandimitra (2017), and Yulandari and Akbar (2020), stated that the effect of *capital structure* on financial performance is significant, nevertheless, those finding diverges from the research carried out by Sihombing and Purba (2021), Chalise and Adhikari (2022), and Amalia (2021), which proposes that the effect of *capital structure* on financial performance is not significant.

An exchange rate is an agreement between two or more nations that have been mutually agreed to. All pharmaceutical companies in Indonesia employ the United States dollar (USD) as the exchange rate for import financial transactions. Exchange rates can change as the company's revenue and profits change, impacting the stock prices and the value of the company rises or falls. Prior to making investments, investors must possess knowledge and comprehension of the significance of currency exchange rates against foreign currencies, as the value of foreign exchange has the potential to affect the revenue earned and expenses borne by the company. Research that discusses exchange rates using exchange rate proxies against the value of companies that have been carried out and produces several conclusions including: According to Samudra (2018) and Pertiwi (2020) studies, it has been found that exchange rates exert a significant effect on the value of a company. Conversely, the research carried out by Pujiati and Hadiani (2020) as well as Anggraini (2021) indicates that the effect of the previously mentioned factor on the value of a company is not significant.

Based on the background of the research, there are three research questions of this study: (1) Does *intellectual capital* have an effect on financial performance in *Personal Care and Household* industry companies for the 2016-2021 period? (2) Does *firm size* have an effect on the financial performance of *Personal Care and Household* industry companies for the 2016-2021 period? (3) Does the *capital structure* have any effect on the financial performance of *Personal Care and Household* industry companies for the 2016 period? The objectives of this study are as follows: (1) To analyze the effect of *intellectual capital* on financial performance mediated by exchange rates in the *Personal Care and Household* industry for the period 2016-2021, (2) To analyze the effect of *firm size* on financial performance mediated by exchange rates in the *Personal Care and Household* industry for the period 2016-2021, (3) To analyze the effect of *capital structure* on financial performance mediated by exchange rates in *Personal Care and Household* industry for the period 2016-2021.

THEORETICAL REVIEW

Financial Performance

According to Rudianto (2013: 189), financial performance can be defined as a measurement of a company's financial state, which serves as a standard for assessing the company's overall financial well-being during a particular period of time. The disclosure of an overview associated with the achievement of financial performance is an essential aspect of a company's annual report, which is given to the company's management to be given to *stakeholder*. According to Fahmi (2017:2), the financial performance status is derived from the information presented in the company's financial statements. The measurement of financial ratios in a company based on profitability ratios, as presented by (Hanafi and Halim 2009: 81). These ratios consist of:

- a. *Profit Margin* refers to the amount of net profit generated from a particular level of sales. The formula for calculating Profit Margin can be written as follows

$$\text{Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

- b. *Return on Asset* measures the net income generated by total assets owned. The formula for calculating ROA is as follows:

$$\text{Return on Asset} = \frac{\text{Net Income}}{\text{Total Assets}}$$

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

c. *Return on Equity* calculates the net income generated by a specific share capital from the viewpoint of shareholders. The formula for calculating ROE can be written as follows

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity}}$$

Intellectual Capital

Intellectual capital encompasses the method of evaluating and measuring *knowledge-based assets*, which refer to *intangible assets* such as information and insights, this method aims to enhance a company's competitiveness and financial success. According to Ulum (2009: 21), the objective of *intellectual capital* in companies is to enhance the *market value* of the business by examining the *book value* of company assets (*financial capital*), thus creating additional value for the company. Ulum (2017: 83) identifies three primary IC factors, which include *Human Capital*, *Structure Capital*, and *Customer Capital*. According to Ulum (2017: 23) proposes that there are present multiple theories that underlie *Intellectual Capital*, which include: (a) *Resource Based Theory* is a theory that emphasizes the utilization of a company's internal resources to establish a sustainable competitive advantage, which facilitates the emergence of profits, (b) *Stakeholder Theory* is a theory that expresses information through the performance of their social and *intellectual* environment to create *value-added* to the company that is beneficial to stakeholders, (c) *Legitimacy Theory* proposes that a company's operation is ensured through a social contract with society, which reports on its intellectual capital to establish and maintain its legitimacy status. According to Ulum (2009: 88) proposes that the measurement of Intellectual capital can be achieved using the *Value Added Intellectual Capital (VAICTM)* method. The method involves a series of stages, including:

a. The first stage undertaken in measuring *Intellectual Capital* requires the measurement of the value added, which can be calculated using the following formula:

$$\text{Value Added (VA)} = \text{Output} - \text{Input}$$

b. The second stage requires the comparison of *value added (VA)* and *capital employed (CE)*, which can be calculated using the following formula:

$$\text{VACA} = \frac{\text{VA}}{\text{CE}}$$

c. The third stage involves a comparison between the *value added (VA)* and *human capital (HC)*, using the following formula.

$$\text{VAHU} = \frac{\text{VA}}{\text{HU}}$$

d. The fourth stage carried out is the calculation of STVA, where the ratio measured in total *structural capital* requires a value added of one rupiah, which will indicate success for the *value-added* achieved; the formula is:

$$\text{STVA} = \frac{\text{SC}}{\text{VA}}$$

$$\text{SC} = \text{VA} - \text{HC}$$

e. The last stage in making *VAICTM* components can be explained in total, and its formula is as follows:

$$\text{VAIC}^{\text{TM}} = \text{VACA} + \text{VAHU} + \text{STVA}$$

Firm Size

The term *firm size* refers to the scale of a company, which is determined by the extent of the company's asset ownership. The classification of companies based on their size is comprised of three distinct categories, including large, small, and medium-sized companies (Wati, 2019: 33). Theories that affect the size of a firm in order to achieve economies of scale rely on increasing the cost of assets owned by companies (Kusuma, 2005), including (a) *Critical Resource Theory* is a theory that highlights the essential role of the expertise of company owners in managing the company's associated resources such as assets, technology, and *intellectual property* as a determinant of a firm's size, (b) *Competency theory* proposes that small companies are capable of earning comparable *profit* as large companies by leveraging their own distinctive competencies to generate excess profits. According to Hartono (2014:460) the firm size is formulated as follows:

$$\text{Firm Size} = \text{Ln} (\text{Total Aset})$$

Capital Structure

Capital Structure is a source of company funding obtained through a combination of debt and equity, indicating the company has a high competitiveness against its competitors by deciding the source of funds on a strong capital structure. The capital structure theory involves the obtaining of funding sources for both internal and external parties of a company. It is supported by various theories (Fahmi, 2017: 187), including (a) *Balancing Theory* refers to the process of obtaining additional company funds from a banking institution through borrowing and the nominal value of the interest rate from the issuance of bonds, which are then sold to the public within a particular period of time. (b) *Packing Order Theory* involves the process of financial decisions to determine

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

the maximum capital structure, the decision to raise funds from internal sources rather than external sources is at the sole discretion of the company, external financing support becomes necessary when the internal financing of a company is deemed inadequate. According to Fahmi (2017: 182), *capital structure* can be measured by several ratios, including:

- a. Debt to Equity Ratio is a ratio that compares the company's total debt to the total capital obtained by the company. This ratio can be formulated as follows

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

- b. *Long-Term Debt to Equity Ratio* (LTDtER) is a ratio that ensures long-term debt to measure the amount of equity the company possesses. The ratio can be formulated as follows:

$$LTDtER = \frac{\text{Long-term Debt}}{\text{Equity}}$$

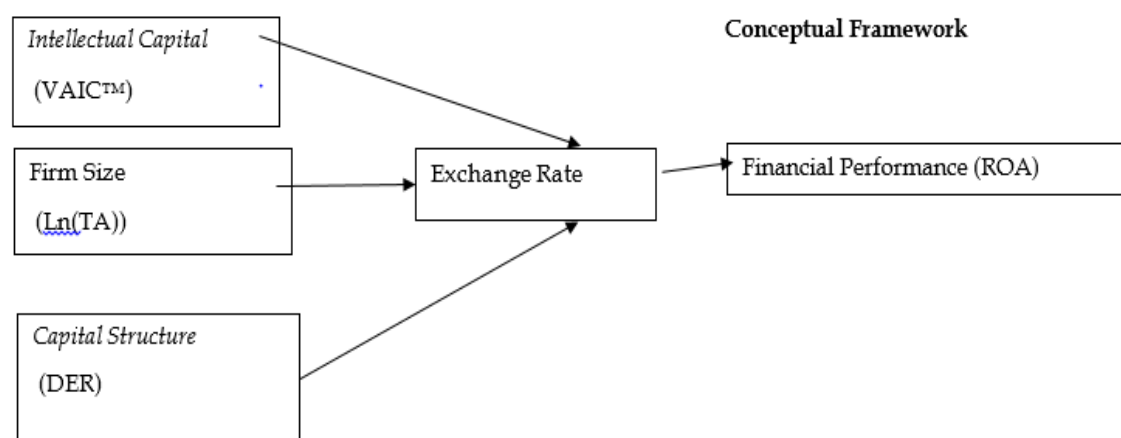
Exchange Rate

The exchange rate is a type of currency rate that determines the quantity of national currency that can be used to buy foreign currency (Firdauzy, 2022). The exchange rate reflects the balance between the supply and demand of domestic currencies and foreign currencies. Exchange rates are subject to change at any time, therefore investors are encouraged to monitor their currency's strength since it affects the value of their shares. The exchange rate of a currency is an essential component in the decision-making process of investors when it comes to making portfolio investments because it may influence the activities within the stock market and the money market (Wiyono and Kusuma, 2017). Susanti (2019), the formula utilized to determine the exchange rate is as follows:

$$\text{Exchange Rate} = \frac{\text{Selling Rate} + \text{Buying Rate}}{2}$$

Previous Studies

Previous studies that can be taken into consideration, conducted by: (1) Saragih and Sihombing (2021), stated that a significant correlation exists between *intellectual capital* and GCG results toward financial performance. However, the study suggests that firm size does not have a significant effect on financial performance. (2) Sihombing and Purba (2021) found that the firm size and leverage had a significant effect on the financial performance of a company, nevertheless, the effect of *capital structure* on financial performance was determined to be insignificant. (3) Putri (2019) stated that the aspects that have a significant effect on a company's value are its size, the amount of *leverage* it uses, and its profitability, on the other hand, *intellectual capital* has an insignificant effect on a company's value. (3) Chalise and Adhikari (2022) stated that firm size has a significant effect on financial performance (ROA and EPS). On the contrary, capital structure has no significant effect on financial performance (ROA and EPS). (4) Muslimah and Asandimitra (2017) proposed that capital structure and firm size have a significant effect on financial performance, whereas *CSR disclosure* and *leverage* have an insignificant effect on financial performance. (5) Amalia (2021) states that leverage has a significant effect on financial performance, on the contrary, *capital structure and firm size* have an insignificant effect on financial performance. (6) Habibah (2016) found that intellectual capital, including VACA, VAHU, and STVA has a significant effect on the company's financial performance (ROA). (7) Yulandari and Akbar (2020) stated that the *capital structure* calculated by DER and DAR has a significant effect on the company's financial performance (ROE).



Source: Data processed by the researcher Picture 1 Conceptual Framework

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

Hypothesis Development

The Effect of *Intellectual Capital* on Financial Performance

Intellectual capital derives from a source of knowledge that encompasses a multitude of ideas and insights, making it a significant factor for business success in the creation of *value-added* to the company (Ulum, 2009: 23). Intellectual capital can provide a significant contribution for a business to have *value-added* from the company's financial performance because intellectual capital will enable the power of knowledge to contribute to a competitive advantage and can affect high levels of investment funding, thus, indicates the company to have superior financial performance. Research by Habibah (2016), Saragih and Sihombing (2021) shows that intellectual capital has a significant effect on financial performance.

H₁: Intellectual capital variables effected financial performance

The Effect of Firm Size on Financial Performance

The larger scale facilitates the obtaining of funding sources from internal and external parties (Hery, 2017: 11). The size of a firm can be considered to be superior in relation to its financial wealth and is inclined towards consistent conditions with commendable *performance* in terms of positive cash flow and high total assets, thereby leading to an increase in the company's financial performance. Research conducted by Sihombing and Purba (2021), Chalise and Adhikari (2022), Muslimah and Asandimitra (2017) stated that firm size has a significant effect on financial performance. In line with Putri (2019), which explained that the firm's size has a significant effect on the company's value.

H₂: Firm size variables effected financial performance

The Effect of Capital Structure on Financial Performance

Capital structure denotes the company's funding source, which is a combination of debt and equity in order to have a company with a high level of competitiveness against its competitors through the selection of funding sources in a strong capital structure (Fahmi, 2017: 178). The determination of the funding source for a company is deemed crucial for establishing a robust long-term competitiveness against its competitors, therefore having strong implications for achieving high financial performance in the times ahead. Research conducted by Muslimah and Asandimitra (2017), Yulandari and Akbar (2020) revealed that capital structure has a significant effect on financial performance.

H₃: Capital Structure variables effected financial performance.

The Effect of Exchange Rate on Financial Performance

The exchange rate is used to connect the currencies of each country. The exchange rate is the most significant unit of price in Indonesia's open economy since it influences the country's overall current account balance (Sukirno, 2011:397). In pharmaceutical companies, exchange rates are of the utmost significance and must be closely monitored, especially since a significant proportion of raw materials utilized in Indonesia's pharmaceutical industry approximately 90%, are imported from foreign countries. The effects of rising or falling exchange rates can influence the cost of goods traded to become expensive because a significant amount of pharmaceutical raw materials is derived through imports. People's purchasing power is the primary focus of the company. If people's purchasing power increases, it will affect the increase in company profits, meanwhile, a decrease in people's purchasing power will contribute to a decline in both the company profits and the company value. From previous research by Samudra (2018) and Pertiwi (2020) it is stated that exchange rates have a significant effect on financial performance.

H₄: The exchange rate proxied by the exchange rate has a significant effect on financial performance

The Effect of *Intellectual Capital* on Financial Performance Mediated by Exchange Rates

Intellectual capital derives from a source of knowledge that encompasses a multitude of ideas and insights, making it a significant factor for business success in the creation of *value-added* to the company (Ulum, 2009: 23). Therefore, intellectual capital is a highly significant component for businesses in order to be able to generate *value-added* to the financial performance of the company, this is because intellectual capital will effectively generate the power of knowledge to obtain a competitive advantage which can have a significant impact on the level of investment funding that is relatively high. Which demonstrates the company's very outstanding financial performance, but it is still heavily influenced by the rupiah exchange rate because raw materials are obtained from imports. Research by Habibah (2016), Saragih and Sihombing (2021) shows that intellectual capital mediated by exchange rates has a significant effect on financial performance.

H₅: Intellectual capital variables effected financial performance mediated by exchange rates.

The Effect of Firm Size on Financial Performance Mediated by Exchange Rates

The larger size of a firm facilitates the obtaining of funding sources from internal and external parties (Hery, 2017: 11). A larger firm size may provide advantages in terms of wealth, leading to a tendency for greater stability conditions with a fairly good

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

performance in positive cash flow, as well as higher total assets, therefore the company's financial performance will be improved. Research conducted by Sihombing and Purba (2021), Chalise and Adhikari (2022), Muslimah and Asandimitra (2017) states that the size of exchange rates-mediated firm has a significant effect on financial performance. In line with research by Adhikari (2022), which explains that firm size has a significant effect on company value.

H₆ : Firm size variables effected financial performance mediated by exchange rate.

The Effect of Capital Structure on Financial Performance Mediated by Exchange Rates

Capital structure denotes the company's funding source, which is a combination of debt and equity, in order to have a company with a high level of competitiveness against its competitors through the selection of funding sources in a strong capital structure (Fahmi, 2017:182). The company's funding source-oriented decision is deemed crucial in establishing robust long-term competitiveness over its competitors, thereby yielding significant implications for a high financial performance in the time ahead. Research conducted by Muslimah and Asandimitra (2019), and Yulandari (2021) revealed that exchange-rate-mediated capital structure has a significant effect on financial performance.

H₇: Capital structure variables effected financial performance mediated by exchange rates.

RESEARCH METHODOLOGY

Type of Research and Overview of Population of the Research

The type of research of this study employs *causal-comparative research*, in which the researcher aims to examine the characteristics of the problem from *the cause-and-effect* relationship between the independent variables and dependent variables. This study employs quantitative data analysis techniques to measure using data that is formed from a set of numbers in statistical methods. This study's population is based on predetermined characteristics, specifically by looking at the descriptions of companies operating in the *Personal Care and Household* industry, as many as nine companies listed on the IDX from 2016 to 2021. The researchers aim to regroup the population into a homogeneous group based on the same characteristics so that the criteria can be determined, which may comprise: (1) *Personal Care and Household* companies registered on the Indonesia Stock Exchange during the period from 2016-2021. (2) *Personal Care and Household* companies that publish complete financial statements consecutively during the period from 2016-2021. (3) *Personal Care and Household* companies presenting financial statements in Rupiah during the period 2016-2021.

Sampling Technique

The sampling technique in this study uses a *non-probability sampling* method using saturation sample types. In this study, the homogeneously selected population has a sample of 5 companies in the *Personal Care and household* industry for the 2016-2021 period, including PT. Unilever Indonesia Tbk (UNVR), PT. Kino Indonesia Tbk (KINO), PT. Mandom Indonesia Tbk (TCID), PT. Mustika Ratu Tbk (MRAT), PT. Martina Berto Tbk (MBTO).

Data Collection Techniques

The data collection technique used in this study is a type of documentary data on the Indonesia Stock Exchange on *Personal Care and Household* industrial companies for the 2016-2021 period with the secondary data sources on the Indonesia Stock Exchange (IDX) website and the Indonesia Stock Exchange Investment Gallery (GBEI) STIESIA Surabaya, which will subsequently be collected, recorded, and examined in the form of *Personal Care and household* company financial statements including the balance sheets and income statements for the 2016-2021 period. The information and other supporting data are obtained from scholarly journals and book literature containing relevant discussions.

Variables and the Definitions of Operational Variables

Sugiyono (2014:96) explained that a research variable is an object of research observation that is studied to obtain information, then a conclusion can be drawn. Operational variables refer to a specific and detailed description of each variable utilized in operational development research, which will subsequently undergo analysis and measurement. This study uses a set of two variables, specifically independent variables consisting *intellectual capital*, firm size, and *capital structure*, to the dependent variable, namely financial performance.

Definitions of Operational Variables

1. Intellectual Capital

Intellectual Capital in this study measures knowledge assets taken from *intangible assets* including information and insights on *Personal Care and Household* industrial companies listed on the Indonesia Stock Exchange for the 2016-2021 period, therefore

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

strengthening competitiveness and enhancing the financial performance of the company. This study employs Ulum's (2009: 88) proposed formula for measuring *intellectual capital*, which takes *value-added* for the calculation of intellectual capital, namely: (1) *Value Added Capital Employed* (VACA) is utilized to compare between *value added* (VA) with *capital employed* (CE), (2) *Value Added Human Capital* (VAHU) involves the comparison between *value added* (VA) with *human capital* (HC), (3) *Structural Capital Value Added* (STVA) which compares *structural capital* (SC) with *value-added* (VA), where structural capital is obtained by subtracting *value added* with *human capital*. As a result, a complete component of the *VAICTM* calculation is obtained from the sum between *Value Added Capital Employed* (VACA), *Value Added Human Capital* (VAHU), and *Structural Capital Value Added* (STVA).

2. Firm Size

The size of the firm illustrates a company's large or small scale, which makes a natural logarithmic measurement of the total assets possessed by *Personal Care and Household* industrial companies listed on the Indonesia Stock Exchange in their operational activities during the period 2016 to 2021, which is used to calculate the size of the firm. The formula of the firm's size was revealed by Hartono (2014: 460), which is a calculation of natural logs to the total assets owned by the company.

3. Capital Structure

The *capital structure* presented in this study describes the source of funding from financial companies owned by *Personal Care and Household* industrial companies listed on the Indonesia Stock Exchange during the period 2016-2021. The measurement of the *capital structure* refers to the formula that was presented by Fahmi (2017: 182), which explains that the measurement of *capital structure* can be calculated by utilizing the *Debt to Equity* (DER) ratio, which compares the total debt to the total equity owned by the company.

4. Financial Performance

The performance of the company's financial statements is obtained from the results of the capability of financial condition by the management of *Personal Care and household* industrial companies for the 2016-2021 period in managing assets effectively in order to accomplish the company's goals within a specified amount of time. Fahmi (2017: 182) explained that the basis of reference to performance measurement can be measured using the *Return on Asset* (ROA) ratio, which compares net income to total assets owned by the company.

5. Exchange Rate

Exchange rate functions as the standard price of one country's currency with another. Changes in currency exchange rates are the things that must be dealt with, due to the fact that exchange rates are in a state of constant fluctuation. In this study, the majority of pharmaceutical companies in Indonesia still import raw materials, which ultimately impacts the price per unit and also can have an effect on the demand in the market. When market demand and people's purchasing power are high, the pharmaceutical companies during the 2017-2021 period experience an increase in profits and stock prices, which can positively impact the value of pharmaceutical companies. The exchange rate in this study uses the rupiah (Rp) exchange rate to the US dollar (USD) and is proxied with the exchange rate. A standard value that has been established by Bank Indonesia can be used to measure the exchange rate. Susanti (2019) states that the exchange rate formula using rupiah (Rp) is as follows:

$$\text{Exchange Rate} = \frac{\text{Selling Rate} + \text{Buying Rate}}{2}$$

DATA ANALYSIS

This study was analyzed using SEM PLS and then processed with WrapPLS version 6.0 in order to evaluate the applied research model, which is conducted in two stages; *outer model* and *inner model* testing. The outer model is carried out in order to determine the correlation value of the latent variable, cross-loadings, validity, and reliability of the variables, as well as R Square (R²), while the inner model is carried out to determine the value of the *path coefficient*, *inner model T-statistical*, and *total effect value*, which shows the level of variation of changes in the independent variable to the dependent variable (Hartono and Abdillah, 2009). Reliability can be measured by looking at the value of cronbach' alpha and composite reliability. The indicator can be reliable if it meets the value of *cronbach' alpha* $\geq 0,5$ and *composite reliability* $\geq 0,7$, while a good AVE is required to have a value greater than 0.50.

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

Table 2. Validity and Reliability Test

Variable	Composite reliability	Cronbach' alpha	AVE	Information
VAIC™	0,901	0,868	0,559	Valid & Reliable
Ln(TA	0,846	0,780	0,578	Valid & Reliable
DER	0.897	0,864	0,561	Valid & Reliable
Kurs	0,963	0.951	0,838	Valid & Reliable
ROA	0,892	0,861	0,590	Valid & Reliable

Source: Secondary Data of 2022 processed with warpPLS version 6.0

As shown in Table 2 above, the *composite reliability* value of the six latent variables is more than 0.7, while *cronbach' alpha* values of all variables are more than 0.5, therefore, it can be concluded that each indicator variable has been reliable or trustworthy in measuring its latent variables, as well as being in accordance with all constructs, presenting an AVE value greater than 0.50, so that it corresponds to the requirements based on the minimum AVE value limit specified at 0.50.

Evaluation of the Structural Model (Inner Model)

In evaluating the structural model (inner model) with the use of PLS, it can use the percentage variance that has been described by looking at the R-squares value for endogenous latent variables as the structural model's predictive force. Solimun (2017) recommends that before interpreting the results of the test, the model ought to have Goodness of Fit (GoF), which is meant to serve as a measure and index of the quality of the relationship between latent variables (inner model) in relation to its assumptions.

In the context of PLS-SEM, the size of the Fil model in Warp PLS 6.0 there are ten model fit measures, namely *Average Path Coefficient (APC)*, *Average R-Square (ARS)*, *Average adjusted R-Square (AARS)*, *Average block variance inflation factor (AVIF)*, *average full collinearitty VIF (AFVIF)*, *Tenenhaus GoF (GoF)*, *sympson's paradox ratio (SPR)*, *R-Square contribution Ratio (RSCR)*, *Statistical suppression ratio (SSR)*, and *Nonlinear bivariate causality direction ratio (NLBCDR)*. The rule of thumbs evaluation of fit models and quality indices in Warp PLS 6.0 is presented in Table 3.

Table 3. Results of Calculation of Model Conformity

No	Model Fit and Quality Indices	Research results	Value Received	Ideal Value	Conclusion
1	Average path coefficient (APC)	0.365	P<0.001		APC Significant
2	Average R-squared (ARS)	0.834	P<0.001		ARS Significant
3	Average adjusted R-squared (AARS)	0,807	P<0.001		AARS Significant
4	Average block VIF (AVIF)	1.888	If ≤ 5	3.3	The AVIF value is ideal
5	Average Full collinearity (AFVIF)	2.823	Acceptable if ≤ 5	≤ 3.3	The AFVIF value is ideal
6	Tenenhaus Gof (GoF)	0,694	Small ≥ 0.1 Medium ≥ 0.25 Large ≥ 0.36	-	The GOF value is large
7	Sympson's paradox ratio (SPR)	0,978	Acceptable if ≥ 0.7	1	The SPR value is accepted
8	R-squared Contribution ratio (RSCR)	0,963	≥ 0,9		The RSCR value is accepted
9	Statistical suppression ratio (SSR)	1.000	≥ 0.7		The SSR value is accepted
10	Nonlinier bivariate causality direction ratio (NLBCDR)	0.944	≥ 0.7		The NLBCDR value is accepted

The secondary data, processed (2022)

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

Table 3 demonstrates that the result of the model fit to be at the ideal value so the model is accepted, therefore, the research model in this study is declared as a good model because it can represent the data.

RESEARCH RESULTS

The results of structural model testing (inner model) can be seen on the R-square (R^2) in each endogenous variable, fiscal policy, and voluntary tax compliance. R-square (R^2) is used for measuring the level of variation in endogenous variables which explained by several influencing variables (Hartono and Abdillah, 2009). The higher the R^2 means, the better the prediction model proposed. The results show that the value of R^2 is 0,74.

Table 4. Path Coefficient Test Results in the Inner Model

Relationships between variables	Path Coefficient	Standard Deviation	P	Decision
<i>Intellectual Capital</i> (VAIC TM) → Financial performance (ROA)	0,28	0,06	<0,01	Positive Effect Significant
Firm Size (Ln(TA)) → Financial performance (ROA)	0,29	0,06	<0,01	Positive Effect Significant
<i>Capital Structure</i> (DER) → Financial performance (ROA)	-0,05	0,06	0,035	Negative Effect Is Not Significant
Exchange Rate → Financial performance (ROA)	0,24	0,06	<0,03	Positive Effect Significant
<i>Intellectual Capital</i> (VAIC TM) → Exchange Rate	0,65	0,06	<0,01	Positive Effect Significant
Firm Size (Ln(TA)) → Exchange Rate	0,19	0,05	<0,08	Positive Effect Significant
<i>Capital Structure</i> (DER) → Exchange Rate	0,32	0,17	<0,01	Positive Effect Significant

Source: The secondary processed (2022)

Table 4 illustrates the relationship between the variables described as follows: *Intellectual Capital* (VAICTM), Firm Size (Ln(TA)), *Capital Structure* (DER), and Exchange Rate have coefficients with a positive direction, significant to Financial Performance (ROA), Which means there is a relationship between *Intellectual Capital* (VAICTM), Firm Size (Ln(TA)), *Capital Structure* (DER), and Exchange Rate has a coefficient with a positive direction, significant to Financial Performance (ROA),

5.1 Test Results of Mediation Variables

The mediation testing method can be done by examining at indirect path tests. Table 5 shows the coefficients and P-values for assessing the effects of mediation.

Table 5. Results of Hypothesis Testing for Mediation Tests

No	Relationships between variables			Path Coefficient	P-value	Description
Testing of 2-segment Mediating Variables						
	Independent Variables	Mediating Variables	Dependent Variables	Indirect path coefficient	P-value	Description
1	<i>Intellectual Capital</i> (VAIC TM)	Exchange Rate	Financial Performance (ROA)	0,05	0,02	Mediation
2	Firm Size (Ln(TA))	Exchange Rate	Financial Performance (ROA)	0,11	<0,01	Mediation
3	<i>Capital Structure</i> (DER)	Exchange Rate	Financial Performance (ROA)	0,03	0,03	Mediation

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

Results of Mediation Variable Testing for Exchange Rate in relation to *Intellectual Capital* (VAICTM), *Firm Size* (Ln(TA)), *Capital Structure* (DER) and Financial Performance (ROA), P-value <0,05, this demonstrate that the exchange rate is a mediation variable.

RESULTS OF HYPOTHESIS TESTING FOR MEDIATION EFFECTS

The hypotheses in this study consist of three hypotheses of direct effect, three hypotheses looking at indirect effect, and also one hypothesis looking at the effect of mediating variables.

Table 6. Results of Hypothesis Testing

Research Hypothesis	Second Order Construct	Path Coefficient	P-Value	Conclusion
H 1	VAIC TM → ROA	0,284	<0,001	Positive effect, Significant
H 2	Ln(TA) → ROA	0,286	<0,001	Positive effect, Significant
H 3	DER → ROA	-0,054	0,192	Negative effect, Insignificant
H 4	Exchange Rate → ROA	0,244	<0,001	Positive effect, Significant
H 5	VAIC TM → Exchange Rate → ROA	0,188	<0,001	Positive effect, Significant
H 6	Ln(TA) → Exchange Rate → ROA	0,323	<0,001	Positive effect, Significant
H 7	DER → Exchange Rate → ROA	-0,125	0,020	Negative effect, Significant

Hypothesis testing:

H₁ : Intellectual capital has a positive and significant effect on financial performance.

The test results on *intellectual capital* (VAICTM) reveal that the value of the path coefficient is 0,284 with the P-Value is <0,001. It can be concluded that *intellectual capital* (VAICTM) has a significant effect on financial performance (ROA).

H₂ : The firm size has a positive and significant effect on financial performance.

The test results on firm size (UP) show that the path coefficient value is 0,054 with the P-Value is <0,001. Which means, firm size (UP) has a significant effect on financial performance (ROA).

H₃ : Capital Structure has a negative and insignificant effect on financial performance.

The test results on *capital structure* (DER) show that the value of the path coefficient is -0,054 with the P-Value is 0.192. Which means, *capital structure* (DER) has an insignificant effect on financial performance (ROA).

H₄ : Exchange rate have a positive and significant effect on financial performance.

The test results on *exchange rate* shows that the value of the path coefficient is 0,244 with the P-Value is <0,001. Which means, *exchange rate* as a mediating variable has a significant effect on financial performance (ROA).

H₅ : Intellectual capital has a positive and significant effect on financial performance mediated by exchange rate

The test results on *intellectual capital* (VAICTM) mediated by exchange rate reveals that the value of the path coefficient is 0,188 with the P-Value is <0,001. Which means, *intellectual capital* (VAICTM) mediated by exchange rate has a significant effect on financial performance (ROA).

H₆ : Firm size has a positive and significant effect on financial performance mediated by exchange rate

The test results on firm size (UP) mediated by exchange rate shows that the value of the path coefficient is 0,323 with the P-Value is <0,001. Which means, firm size (UP) mediated by exchange rate has a significant effect on financial performance (ROA).

H₇ : Capital Structure has a negative and insignificant effect on financial performance mediated by exchange rate

The Effect of Intellectual Capital, Firm Size, and Capital Structure on Financial Performance Mediated by Exchange Rate in Personal Care and Household Companies

The test results on *capital structure* (DER) mediated by exchange rate shows that the value of the path coefficient is -0,0125 with the P-Value is 0.020. Which means, *capital structure* (DER) mediated by exchange rate has an insignificant effect on financial performance (ROA).

CONCLUSION AND SUGGESTION

CONCLUSION

This study aims to determine the effect of *intellectual capital* (VAICTM), company size (UP), and *capital structure* (DER) on financial performance as measured by ROA, in *consumer non-cyclical* sector companies in the *nondurable household products* sub-sector in the *personal care and household* industry that is listed on the Indonesia Stock Exchange (IDX) from 2016 to 2021, by taking as many as five company samples after homogeneous regrouping in the criteria that have been researched. This study uses a sampling technique with a non-probability sample method that uses saturation sample types. This study takes data on the company's financial statements through balance sheets and income statements sourced from secondary data obtained through access to the Indonesia Stock Exchange (IDX) website and the Indonesia Stock Exchange Investment Gallery (GBEI) program STIESIA Surabaya. The conclusion drawn from the obtained research results is: (1) *intellectual capital* proxied by *Value Added Intellectual Capital* (VAICTM) shows a positive and significant effect on financial performance (ROA) in *personal care and household* companies from 2016-2021, (2) Firm size proxied by Ln(TA) shows a positive and significant effect on financial performance (ROA) in *personal care and household* companies from 2016-2021, (3) *capital structure* proxied by *Debt To Equity Ratio* (DER) shows a negative and insignificant effect on financial performance (ROA) in *personal care and household* companies from 2016-2021.

LIMITATIONS

The procedures and provisions carried out in this study have been determined. However, this study also has several limitations, including (1) the objects that are used by the researcher in *personal care and household* companies have a population of nine companies, and only five companies were selected with the same predetermined criteria and characteristics for the study. (2) In this study, the observation period was set for six years, from 2016 to 2021, so it is considered less able to describe the company's long-term condition. (3) There are many other variables that can affect financial performance in the company, but researchers only use three variables studied, namely *intellectual capital*, *firm size*, and *capital structure*.

Suggestions

From the study's conclusion, there are several suggestions given by researchers: (1) For companies operating in the *personal care and household* sectors, it is essential to enhance and maintain the *value-added intellectual capital* (VAICTM), In addition, the companies also need to maintain investor interest in increasing the level of company size (*firm size*). Moreover, companies need to pay attention to the *capital structure* (DER) value when utilizing capital for debt financing, because if the DER value is high, it will decrease the financial performance experienced, which will subsequently have an impact on investors in investing their funds. (2) For potential investors or the investors, it is expected to consider and review in assessing the factors of *intellectual capital*, *firm size*, and *capital structure* in the selection of investment funds so that later they will have the opportunity for optimal *returns*. (3) For future researchers, it is expected to be able to expand their research by including additional variables that have not been researched regarding the effect on financial performance, so that future studies can serve as a basis for making investment decisions in *personal care and household* companies.

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