Financial Performance of Selected Micro Small and Medium Enterprises: A Case Study of Indonesian Agro-Industry Businesses

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Abstract

      The number of Indonesian MSMEs has risen. It forces businesses to produce superior products and manage their finances well to thrive and become a leader in their respective sectors. However, most Indonesian MSMEs are run by individuals or groups of people who lack the knowledge and resources to produce financial reports. The study goals are to identify Indonesian MSMEs' financial performance and offer practical recommendations to their owners based on their financial performance and business characteristics. Purposive sampling led to the selection of five Indonesian agro-industry businesses as samples. Data was gathered through in-depth interviews with owners and/or staff, as well as any production, inventory, and financial records. Profitability ratios, liquidity ratios, asset management ratios, and common-size analysis were used to assess financial performance based on the financial data from June to November 2021.

      According to the result, all businesses rely on their capital and retained earnings to run their operations. In agro-industry businesses, profitability ratios, defensive interval ratios, asset management ratios, and common-size analysis were required to identify the management of its asset, equity, and expenses to decide on the procurement plan, generate more income, and inform potential investors and buyers. Rumah Ketela, Soto Mantenan, Sarisa Merapi, PLS, and Superbram were listed in order of lowest to highest net income. Soto Mantenan could cover its daily expenses with existing cash for 4 days and Sarisa Merapi for 413 days, based on their average cash on hand in a month. Furthermore, Soto Mantenan did not have a big total asset base, resulting in high inventory turnover, fixed asset turnover, and total asset turnover, as well as a short average time to convert inventory to cash. Its owners always had a minimum amount of cash and inventory on hand to cover day-to-day operations, thus there were not many current assets. Sarisa Merapi, on the other hand, had high average total assets, which had an impact on average inventory turnover, fixed asset turnover, and total asset turnover; all of which were low, and days in inventory period were high, among other businesses. Sarisa Merapi owns some contemporary machines, which contributed to the high total assets and expenses. When compared to median industry ratios, the median profitability ratios of all selected businesses were relatively low, while the median asset management ratios of all selected businesses were more effective. As for recommendations, Superbram can be more active on e-marketplaces to reach more customers, Sarisa Merapi may share value by renting its production machines to other MSMEs, and Soto Mantenan can introduce new product variations to create more sales. Rumah Ketela will need to recalculate its expenses over time and PLS can apply forecasting to reduce the total cost of unsold or rejected products.

Keywords: *common-size analysis, financial management, financial ratios, Indonesia, MSMEs*

1. Introduction

      Micro, small, and medium enterprises (MSMEs) are the businesses that help Indonesia's gross domestic product growth. A business is classified as MSMEs if it is established by an individual or a group that has the maximum net assets excluding construction and land for running the business of Rp 50,000,000.00 (115,872.17 THB) or the annual sales, not more than Rp 300,000,000.00 (695,233.02 THB) (Indonesian Government, 2008). In 2018, the overall number of Indonesian MSMEs was 64,199,606 units, which has climbed to 65,417,134 units in 2019 (The Ministry of Cooperatives and Small and Medium Enterprises of The Republic of Indonesia, n.d.). Many people lost their employment or faced various

conditions as a result of the COVID-19 issue, prompting many to start their businesses. To become a market leader, the business must develop distinctive, superior products and have good financial management. It is deeply regretted that most Indonesian MSMEs only focus on one aspect and ignore other aspects when they run their businesses. For instance, some business owners focus on marketing while ignoring how to manage their finances so that they may plan short- and long-term strategies for production, marketing, sales, and others to gain more profit and expand their business. The business can also choose the appropriate pricing for its sales products by controlling its finances. To attract more customers in Indonesia, particularly in the Special Region of Yogyakarta and nearby some businesses compete by selling products at extremely low prices without careful consideration of the product and operational costs. Furthermore, the majority of MSMEs lack financial reports. The lack of understanding, information, and resources owned by MSMEs to carry out these activities is the source of this shortcoming. Muslichah, Sunarto, Amir, Sri, and Hariyanto (2020) found that from 214 samples, 56 percent of SMEs did not prepare financial statements because they did not have staff or workers to create them, 32.1 percent because the government did not command it, 6.4 percent because they did not understand the benefit of doing so, and 5.5 percent because they believed it is a waste of time. In addition, only 54.7 percent of SMEs created income statements, 29.5 percent created income statements and balance sheets, 10.5 percent created income statements, balance sheets, and notes to financial statements, 4.2 percent created all financial statements except notes to financial statements, and 1 percent created all financial statements. This view is backed up by the little quantity of data on MSMEs financial statements that the Indonesian government has made public.

In this study, five Indonesian agro-industry businesses from the Special Region of Yogyakarta, Indonesia, and its environs were chosen as samples. Profitability ratios, liquidity ratios, asset management ratios, and common-size analysis were used to examine the financial performance of those samples. Financial analysis in MSMEs can be quantified by profitability ratios, liquidity ratios, and asset management ratios (Brijlal, Enow, & Isaacs, 2014; Bui, Nguyen, & Ngo, 2021; Wahyono, 2018). Brijlal et al. (2014) discovered that only 36 percent of MSMEs used the current ratio and 30 percent used return on sales (ROS) for business analysis, based on the study of 59 South African MSMEs. Kotane and Kuzmina-Merlino (2017) stated there were seven key factors to consider when evaluating SMEs' performance, namely gross profitability, receivables collection period, ROS, return on equity (ROE), days payable outstanding, inventory conversion period, and return on assets (ROA).

Profitability ratios are used to determine a business earning potential (Gibson, 2009). ROS, ROA, and ROE are all part of it (Gibson, 2009; Jagels & Ralston, 2007). Liquidity ratios are used to assess a business's capacity to meet short-term obligations (Robinson, van Greuning, Henry, & Broihahn, 2008). There are various types of liquidity ratios, but because no liabilities exist in all business samples, only the defensive interval ratio may be used in this study. The defensive interval ratio is used to determine how long a business can use available cash as a current asset for day-to-day expenses (Robinson et al., 2008). The complete financial performance analyses (ROS, ROA, ROE, solvability, current ratio, and quick ratio) of SMEs before and after their first public offering on the Indonesia stock exchange were not considerably different, according to a past study on five SMEs (Wahyono, 2018). Asset management ratios are used to assess how well a business managed its assets to generate revenue. These ratios include inventory turnover, fixed asset turnover, total asset turnover, and days inventory outstanding. The analyst can use the common-size analysis to calculate the percentage relationship between total revenues, total assets, total liabilities, and total equities, as well as each component item in the income statement and balance sheet (Sinha, 2012). Using this analysis, the comparison of businesses becomes more useful because financial statements were remodeled in a common-size format (Gibson, 2009; Subramanyam & Wild, 2009). The overall sales are the denominator in the income statement, whereas the component item is the numerator. The total assets and the total liabilities and equities are the denominators on the balance sheet.

Based on the explanation above, financial management is important to determine whether a business has sufficient working capital to operate over time, identify the role of each component item on financial statements, and develop strategies based on financial performance, business characteristics, and sales history, not just in financial sectors. As a result, the focus of this research will be on financial

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performance evaluation and determining the root cause to provide recommendations to business owners on how to better their businesses in the future.

2. Objectives

This research has two main objectives, namely:

1) To determine the financial performance of Indonesian agro-industry MSMEs using liquidity ratios, asset management ratios, profitability ratios, and common-size analysis

2) To provide practical recommendations for Indonesian agro-industry MSMEs that can be implemented in the future based on the financial performance and business characteristics

3. Materials and Methods

The study was conducted in qualitative research. The sample consists of five businesses that were chosen using the purposive sampling approach. Those businesses are Rumah Ketela (RK) which produces cassava-based products and food services, Sarisa Merapi (SM) which produces salak-based products, PLS which produces cassava-steamed chips, Superbram (SB) which produces fried shallot, and Soto Mantenan (STM) which is food service that produces Soto (one of the Indonesian soups). The research was conducted in the Special Region of Yogyakarta, Indonesia and its environs since these places are well-known for educational, gastronomic, natural, shopping, and cultural tourism. Aside from that, handicrafts, food, and beverage as a part of processing sectors contribute significantly to the total MSMEs in the Special Region of Yogyakarta, Indonesia, and its environs (BPS-Statistics of Magelang Regency, 2021; Cooperatives and Small and Medium Enterprise Office in Special Region of Yogyakarta, 2021). All of the businesses chosen shared the same traits, such as having no liabilities for their capital, being a member of the government, and wishing to join the government in the development of MSMEs, and producing local food typical of the Special Region of Yogyakarta, Indonesia, and its environs. Purposive sampling was used because of its merit of being practical and convenient, especially in the aftermath of the COVID-19 pandemic when it is difficult to discover MSMEs that are still operating in the same manner as before the pandemic. Furthermore, only some businesses want to be transparent about their financial position.

The information was gathered through in-depth interviews with business owners and/or employees to learn about the business structure and finances. The organizational structure, financial records, production, inventories, and cash flows were all covered by the questions. In addition, if any, business records from June to November 2021 in terms of production, inventory, and financials were collected. Because of the COVID-19 pandemic, interviews were performed via online and face-to-face meetings. It was performed using a question guideline and recorded by a smartphone voice recorder. For financial performances, the measurement was carried out by profitability ratios (ROS, ROA, and ROE), liquidity ratios (defensive interval ratio), asset management ratios (inventory turnover, fixed asset turnover, and days inventory outstanding), and common-size analysis. Table 1 contained the formulas for each financial performance. Furthermore, the analysis was carried out with the help of Microsoft Excel 2019. To determine the summary of data, descriptive statistics in terms of mean or average and median were generated for the financial performance outcome. The results of the financial ratios were then compared to the median industry ratios to determine the position of each business and the unity of all businesses in their sector.

4. Results and Discussion

International trade was highly limited during COVID-19, and customers' purchasing power was reduced as a result of the economic crisis. Agro-industry, on the other hand, remains one of the most significant sectors in daily life. As a result of COVID-19, some businesses required additional working capital for their operations from third parties to maintain their total sales, while some of them received minimal income with their own capital. Profitability ratios and asset management ratios are necessary to attract new investors and/or assess the capabilities of the business's sales, equity, and assets to operate the business and generate income. It was backed up by a previous study by Runtunuwu, Mangantar, and

Tumbuan (2021), which found that return on assets and return on equity could identify the financial performance of 21 agro-industry companies listed on the Indonesia stock exchange from 2018 to 2020 in terms of their ability to give investors a return and manage their assets to generate a net profit. Inventory turnover, fixed asset turnover, and total asset turnover can also be used to evaluate the efficiency of agro-industry businesses in utilizing their assets (Nursafitri, Suroso, & Faddila, 2021). The study found that the fixed asset turnover and total asset turnover of seven selected agro-industry businesses on the Indonesia stock exchange were lower than the industry average, which meant that the businesses were not effectively using their assets. Another financial statistic, the defensive interval ratio, was used to determine how long the business's liquid assets could cover its daily expenses. It was critical for MSMEs because cash is utilized for the majority of transactions, salary payments, investments, and working capital expenditures (Nance, 2018; Oladejo, Akande, & Yinue, 2017). As a result, the total cash on hand of the business must be determined to determine whether the business needs extra working capital for its operations. The common-size analysis aims to determine the contribution of each element in the income statement to total sales, as well as each element in the balance sheet to total assets and equity. This information allows the business to negotiate raw material prices with suppliers, notify potential investors about the business's valuation, and inform other businesses that function as purchasers about the business's short and long-term capital to ensure product delivery (Shrotriya, 2019).

Table 1 The financial performance formulas[*]

Types of financial performance	Sub-types	Formula	The function
Profitability ratios			
	Return in Sales (ROS)	Net income per month / Sales per month	A potential profitability
	Return on Assets (ROA)	Net income per month / Total assets per month	The effectiveness of using assets
	Return on equity (ROE)	Net income per month / Stockholders' Equity per month	The total profit by the common equity itself
Liquidity ratios			
	Defensive interval ratio (days)	(Cash + short-term marketable investments + receivables) per month / daily cash expenditures	The business's ability to cover its expenses by the existing current assets without inventory
Asset management ratios			
	Inventory turnover	Cost of goods sold per month/inventory per month	The effectiveness of managing the inventory
	Fixed asset turnover	Sales per month / Fixed assets per month	The effectiveness of managing fixed assets to earn sales
	Total asset turnover	Sales per month / Total assets per month	The effectiveness of managing total assets to earn sales
	Days inventory period (days)	30 days / Inventory turnover per month	Total days to convert inventory to cash
Common-size analysis			
	Income statement	(*An income statement element* / Total sales per month) * 100%	A contribution of each element in the income statement to sales

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Types of financial performance	Sub-types	Formula	The function
	Balance sheet	(*A balance sheet element* / The total assets per month) x 100% or (*A balance sheet element* / Total Liabilities and Equities per month) x 100%	A contribution of each element in the balance sheet to total assets or liabilities and equities

*Note. The table demonstrated a set of formulas used for financial performance (Jagels & Ralston, 2007; Lasher, 2005; Robinson et al., 2008; Sinha, 2012; Subramanyam & Wild, 2009; Zietlow, Hankin, Seidner, & O'Brien, 2018)

For all selected businesses, Table 2 displayed the average values of financial ratios for ROS, ROA, ROE, the defensive internal ratio in days, inventory turnover, fixed asset turnover, total asset turnover, and inventory conversion period in days. The average numbers were calculated using each business's average ratio from June to November 2021. Rumah Ketela, Soto Mantenan, Sarisa Merapi, PLS, and Superbram had the lowest to highest net income, with the average return on sales of -0.07, 0.03, 0.06, 0.13, and 0.32, respectively. Five businesses had an average ROS of 0.09, with a median of 0.06. In this study, which used the median industry ratios of food and related products businesses in the United States in 2020, the performance of each selected MSME and the median of all MSMEs was compared to the performance of other businesses in the same sector. It could aid the business owner in gaining a better understanding of his company's current situation. The median was used as a benchmark instead of the mean because the mean cannot effectively reflect the distribution or central tendency of data that contains some or many values that are less than the lower control limit or larger than the upper control limit (exceeds the outliers) (DeAngelis & Ayers, 2009). The data is deemed to be regularly distributed if the mean and median values are nearly equal, and if plotted as a curve, it will form a bell curve. When ROS, ROA, and ROE of each business, as well as the median of all selected businesses, were compared to industry medians, it became evident that all businesses were significantly less profitable than their industry counterparts. The profitability ratios of all selected businesses were less than 1.00, while the industry medians were larger than 3.00. It could be a result of the pandemic since people's purchasing power was lowered, and fewer visitors visited the Special Region of Yogyakarta, Indonesia, and its environs as a result of the government's restrictions on community activities.

Table 2 The financial ratios of five businesses

Financial Performance	Sub-types	The average ratios					Average	Median	Median industry ratios*
		RK	SM	PLS	SB	STM			
Profitability ratios									
	Return on sales (ROS)	-0.07	0.06	0.13	0.32	0.03	0.09	0.06	5.20
	Return on assets (ROA)	-0.01	0.00	0.06	0.07	0.11	0.05	0.06	3.80
	Return on equity (ROE)	-0.01	0.00	0.14	0.12	0.12	0.08	0.12	5.90
Liability ratios									
	Defensive interval ratio (days)	31.89	413.33	52.78	161.43	3.50	132.58	52.78	-

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Financial Performance	Sub-types	The average ratios					Average	Median	Median industry ratios*
		RK	SM	PLS	SB	STM			
Asset management ratios									
	Inventory turnover	0.32	0.09	0.86	3.32	31.94	7.31	0.86	0.45
	Fixed asset turnover	0.68	0.04	3.95	0.61	10.20	3.10	0.68	-
	Total asset turnover	0.21	0.03	0.44	0.20	4.22	1.02	0.21	0.07
	Days in inventory outstanding (days)	105.98	381.36	37.57	23.36	0.95	109.84	37.57	68.00

*Note. The median of the industry financial ratios for United States food and kindred products listed companies in 2020 (Unlimited Consulting and Auditing Partnership "Avdeev & Co.", n.d.).

Factors affecting the ROS ratio were the total sales and total expenses for each business. Rumah Ketela had significant total expenses of 107.40 percent of total sales because the business owner set the prices of her products relatively low. The COGS were calculated solely based on the owner's estimation and experience. The investigation by careful calculation of cost breakdown revealed that some of these product prices were very close to the COGS and the others had prices lower than COGS. Superbram, on the other hand, had a low total expense ratio of 67.49 percent. The business is classified as Farmer Women's Group. It is similar to a small cooperative that may easily be found in Indonesian rural areas to empower women farmers. This sort of business has the peculiarity that the majority of employees had a primary occupation as a farmer, hence all Superbram employees were paid based on the number of raw materials and packaging they provided. Except when total power and water usage was less than the monthly minimum tariff, there were no fixed costs in this business. There are two forms of power usage, namely prepaid and postpaid. Prepaid customers must pay a set amount of money before using the electric utility, which is calculated based on the total quantity of electrical capacity they require in kilowatt-hours. Meanwhile, postpaid fees are calculated based on total consumption. However, customers must pay the minimum fee if their monthly usage is less than the minimum usage. Workers who are responsible for financial records and sales activities volunteer and do not receive a wage. Furthermore, overall sales of Superbram were substantial since it partnered with Bank Indonesia to supply products in large quantities frequently in order to help and promote MSMEs.

The average ROA and ROE of Rumah Ketela were also the lowest among the others. Both ratios had a value of -0.01. It meant that Rumah Ketela had a continuous modest amount of net income and inadequate asset and capital management because of this. The business owner got more funding from another equity to cover its operational needs so that the business could survive even though it had lost a lot of money. Soto Mantenan had a high ROA and ROE because the business owners did not have a lot of assets to operate and they also withdrew the capital for their own needs at times. Superbram, on the other hand, had consistently high net income values, which brought about its ROA and ROE to be the second-highest values.

Because not every business had liabilities, one sort of liability ratio can be used was the defensive interval ratio. Fact that businesses did not have liabilities, business owners rely on their capital and retained earnings for running their business. They did not want to risk taking on debt during the pandemic since the government routinely modified its policy regarding large-scale restrictions, which impacted the operational time of tourist places and business owners could not foresee entire monthly sales in the future.

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A defensive interval ratio is the number of days the business can cover its daily expenses with cash on hand. If the business has a large amount of cash on hand and/or little daily expenses, the ratio will have short days. Soto Mantenan had the fewest days to cover its daily expenses with cash, as seen in Table 2, whereas Sarisa Merapi had the longest days. Owners of Soto Mantenan had cash on hand for two to three operational days and inventory for one to two days, allowing them to cover their daily expenses for three days. As a consequence, it supported the fact that the number of days inventory outstanding was only one day. The owners offered a total of 15 portions of Soto on a single day. As a result, the business owners only preserved their current assets to make 15 portions of Soto and other side dishes, as well as to procure raw materials and products for the next day. Sarisa Merapi, on the other hand, had to fund its daily expenses for the longest time (413 days). It held high quantities of cash on hand for emergency funds, with a minimum of 69,523.31 THB per month from June to November 2021, while its average daily expenses were 11,273.42 THB.

A time period of a month was used to compute inventory turnover, fixed asset turnover, and total asset turnover. Table 2 showed that Sarisa Merapi had the lowest inventory turnover, fixed asset turnover, and total asset turnover rates, whereas Soto Mantenan had the highest. In other words, Sarisa Merapi did not manage its assets as effectively as the other businesses, with Soto Mantenan being the most effective. Sarisa Merapi had the average inventory turnover, fixed asset turnover, and total asset turnover rates of 0.09, 0.04, and 0.03 times per month, which translated approximately into 1.00, 0.48, 0.36 times per year, respectively. The business had the lowest rate on such asset management ratios since it had a large number of assets, including current and fixed assets, but total revenues were down 80 percent from before the pandemic. Sarisa Merapi held a lot of stock for raw materials, semi-finished products, and finished products, notably for product packaging, hence inventory turnover was quite low. The business sold a variety of products, and each product's packaging had to be purchased in huge quantities to keep packaging costs down. Typically, a 1000 pieces minimum order was required for one type of product packaging. Furthermore, because the business is located near a tourist spot called Kaliurang, in Sleman District where many visitors come during the weekend, and salak-based products are one of the special food souvenirs in the Special Region of Yogyakarta, the business kept a large volume of finished products stock to anticipate large orders and/or any visitation from groups of visitors. Sarisa Merapi had an average monthly inventory of 40,682.22 THB, with an average monthly COGS of only 9.46 percent of its inventory. As indicated in Table 4, the current assets of Sarisa Merapi were low among other enterprises at 26.41 percent, but fixed assets were high at 73.59 percent. Its total assets were substantial due to the presence of advanced machines for production. These machines also contributed to the high business depreciation cost per month and return on assets. Furthermore, the decline in total sales during the pandemic, made the use of assets, particularly fixed assets, less effective than before the pandemic. Days in inventory outstanding of Sarisa Merapi were calculated by dividing the number of days in a month by the inventory turnover.. As a result, Sarisa Merapi had the highest average inventory turnover of 382 days which meant it had to turn all its raw materials, semi-finished products, and finished products into cash in 382 days. Meanwhile, Soto Mantenan had the lowest average inventory of one day.

Soto Mantenan differed from Sarisa Merapi in that it possessed a small number of assets, which resulted in high inventory, fixed asset, and total asset turnovers. In a month, its average inventory turnover was 32 times. It meant that the business had the possibility of restocking its inventory twice a day. According to an interview with the business owners, they will buy a specific raw material in the morning and the remainder in the afternoon to preserve the chicken meat as Soto ingredients fresh for product processing the same day and the rest for preparing ingredients for the next day's operation. The average fixed asset and total asset turnover of Soto Mantenan were 11 and 5 times per month, respectively.

When the inventory turnover of each business was compared to the median industry ratio, it was clear that PLS, Superbram, and Soto Mantenan had higher inventory turnover than the median industry ratio of 0.45 times each month. In other words, the value was less than 68 days based on days inventory outstanding, with PLS needing 38 days, Superbram 24 days, and Soto Mantenan 1 day. It signified that, in comparison to other businesses in their field, such businesses effectively controlled their inventories. It was

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backed up by the fact that the median inventory turnover of all selected businesses of 0.86 times per month, or 37 days, implying that the majority of all selected businesses had better inventory management than the industry median. All selected businesses, except for Sarisa Merapi, had total assets turnover that was faster or more effective than the median of all businesses in their sector, which was 0.07 times per month. Soto Mantenan, PLS, Rumah Ketela, and Superbram had asset turnover rates of 4.22, 0.44, 0.21, and 0.20 times per month, respectively.

Table 3 The average common-size analysis in financial statements of five businesses

Description	The average ratios (%)					Average (%)	Median (%)
	RK	SM	PLS	SB	STM		
Revenue	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Cost of goods sold (COGS)	68.98	27.59	48.04	57.93	80.34	56.58	57.93
Operational cost	29.44	20.80	31.19	0.49	16.66	19.72	20.80
Marketing and promotion	0.73	4.48	6.76	0.00	0.00	2.39	0.73
Other expenses	0.89	0.00	0.00	0.00	0.00	0.18	0.00
Total expenses exclude without depreciation and amortization	100.04	52.87	85.99	58.42	97.00	78.86	85.99
Depreciation and amortization	7.37	40.69	0.46	9.06	0.41	11.60	7.37
Total expenses	107.40	93.56	86.45	67.49	97.40	90.46	93.56
Gross margin	31.02	72.41	51.96	42.07	19.66	43.42	42.07
Operating income (EBIT)	-7.40	6.44	13.55	32.51	2.60	9.54	6.44
Interest payment on debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Earning before tax (EBT)	-7.40	6.44	13.55	32.51	2.60	9.54	6.44
Income taxes	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Bank taxes	0.00	0.00	0.39	0.50	0.00	0.18	0.00
Net income	-7.40	6.44	13.16	32.01	2.60	9.36	6.44

Table 3 showed how each part of the income statement influenced total sales for each business, as well as the average median sales for five businesses. One of the largest components of total expenses is the cost of goods sold. The ratios of ROS, ROA, ROE, defensive interval ratio, inventory turnover, and days inventory outstanding were all affected by the percentage of COGS. The higher the COGS, the lower the ROS, ROA, ROE, defensive interval ratio, and days inventory outstanding while increasing the inventory turnover. Soto Mantenan was the second lowest-earning business, with a total average ROS of 0.03. Because the product costs only 18.54 THB and had a high average total COGS, the net income was quite low. Sarisa Merapi, PLS, Superbram, Rumah Ketela, and Soto Mantenan had the lowest to highest COGS, with values of 27.59 percent, 48.04, 57.93, 68.98, and 80.34 percent, respectively. The high COGS of Soto Mantenan was influenced by the main product, Soto soup, which contained several ingredients and herbs, affecting the total COGS. In addition, there were many competitors around their business with the same sort of business and some with the same product. The owners, hence, priced their product at a low price in order to compete for customers by low price attractiveness. The noteworthy aspect is that most individuals in the Special Region of Yogyakarta and its environs preferred to focus on products with low prices rather than product quality. Furthermore, Sarisa Merapi had the lowest COGS among the other businesses because salak, the principal raw material, had moderate price changes every month, with a price range of 6.95 to 9.27 THB for one-kilogram peeled salak.

Total expenses are one of the criteria that affect the amount of net income. Because net income is computed by subtracting total sales from total expenses, which includes COGS, it has an impact on ROS, ROA, and ROE ratios, which have less value if COGS has a higher value. The average return on the sales ratio in Table 2 and the average total net income in Table 3 were calculated using the same formula so that the results were comparable.

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Table 4 The average common-size analysis in balance sheets of five businesses

Description	The average ratios (%)					Average (%)	Median (%)
	RK	SM	PLS	SB	STM		
The percentage of total assets							
Current assets							
Cash	21.23	17.87	63.47	56.57	47.70	41.37	47.70
Account receivable	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inventory	47.30	8.54	25.26	7.75	10.65	19.90	10.65
Current assets for business excluding cash	47.30	8.54	25.26	7.75	10.65	19.90	10.65
Total current assets	68.53	26.41	88.74	64.32	58.35	61.27	64.32
Fixed assets							
Equipments	156.23	105.79	18.99	74.92	76.82	76.82	76.82
Accumulation of depreciation and amortization	126.48	32.19	7.73	39.24	35.17	35.17	35.17
Total fixed assets	32.61	73.59	11.26	35.68	41.65	35.68	35.68
Total assets	100.00	100.00	100.00	100.00	100.00	100.00	100.00
The percentage of total liabilities and equities							
Liabilities							
Current liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Long-term debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equities							
Capital	69.56	92.81	42.73	62.62	93.64	72.27	69.56
Accumulated retained earnings	30.44	7.19	57.27	37.38	18.15	30.09	30.44
Prive for the owner	0.00	0.00	0.00	0.00	11.79	2.36	0.00
Total equities	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total liabilities and equities	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 4 showed the contribution of each element in balance sheets to total assets, liabilities, and equities. The number of days inventory outstanding and the interval turnover are both affected by inventory. Current assets, together with fixed assets, can give an impact on ROA and total asset turnover value. Furthermore, fixed assets have an impact on fixed asset turnover. The total fixed asset turnover decreases as the total fixed asset turnover increases. PLS, Rumah Ketela, Superbram, Soto Mantenan, and Sarisa Merapi, from lowest to highest, had total fixed assets of 11.26, 32.61, 35.68, 41.65, and 73.59 percent, respectively. PLS had the smallest fixed assets because the owners bought semi-finished products that were the original flavor of cassava-steamed chips, and they only added flavor to the chips after receiving products from another MSME (no-flavor chips). That is also the reason, the business did not need high capital for its product processing. It only had 42.73 percent capital, with the remaining 57.27 percent consisting of the accumulation of retained earnings for the business operations. As a result, the fixed assets of PLS were restricted to any equipment used for flavoring cassava-steamed chips, sealing, and storing the original chips, packing, and finished products. The business also could reduce the total cost of raw materials and processing, as well as the time it took to produce. Meanwhile, Sarisa Merapi, with a capital of 92.81 percent, had the largest capital since it often obtained funds and any kind of assets from the government and other private enterprises to improve its operation.

Based on interviews and the data in Tables 2, 3, and 4, Superbram, a business that made fried shallot products, had the highest profit among the other enterprises. However, it may need to be more active in e-marketplaces like Tokopedia (one of Indonesia's largest e-marketplaces) and Shopee to broaden the

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target market and reach more customers in the same target. The business can join with a free delivery program from e-marketplaces as a solution to the customer pain points in delivery costs. According to the interview with the Superbram owner, the majority of transactions had done by social media called Whatsapp and offline stores. It existed for e-marketplaces, but the administrator did not open it very often, and the information was out of date. Customers who wanted to buy through e-marketplaces, for example, had to pre-order even though the business always had stock in its production room and there was no free delivery for orders in specific quantities. The administrative staff believed that most customers would buy a product based on its price rather than its quality. This was a hurdle to online marketing.

According to interviews with the owners of all selected businesses, during the pandemic, they were unable to produce their products as efficiently as they had been before the pandemic, negatively impacting their financial performance. Before the pandemic, Rumah Ketela's inventory turnover could be as high as two times per month, and many tourists came to have local food training in order to boost sales. Because demand had decreased, PLS was unable to send as many products to as many cities, hotels, and restaurants as normal. For Soto Mantenan, because people's purchasing power was dwindling and workplace and school activities were based at home, it was unable to serve many servings of Soto during the pandemic. People opted to cook for themselves rather than buy from any food stalls. Superbram and Sarisa Merapi both have a large number of product varieties, which influenced inventory, particularly product packaging. As previously stated, a minimum order was required when obtaining the product packaging in order to keep the packing costs low. However, because overall production had reduced, inventory turnover, fixed asset turnover, total asset turnover, and total days needed to convert all inventory to cash took longer than before the pandemic. Due to lower demand and sales, four out of five businesses had more cash than inventory and fixed assets. Some of them believed that the pandemic situation made any type of equipment and/or machine investment unnecessary because the total production was low. Furthermore, the pandemic had an influence on total expenses because the business still had to account for the depreciation of its equipment and machines every month, which certain businesses had a higher cost on it than other expenses at times.

Sarisa Merapi was the one with the highest depreciation costs, which had a negative influence on the total net income obtained. As a result, in order to boost total net income, the business can lease the advanced machines to other MSMEs that do the same operation but lack the financial and access to acquire those machines. The business can also share value and risk with other MSMEs by leasing the machines. According to discussions with the owners of Soto Mantenan, they were unable to raise the product price because there were other Soto food stalls nearby that charged the same amount. As a result, the business needs to develop superior products and/or introduce additional dishes or products with fewer competitors to provide customers more options and lessen their weariness with certain products. To avoid further losses, Rumah Ketela, as a food service and food production business, should set new product prices based on the cost breakdown calculated through research and recalculate other expenses. PLS had 38 days to convert all of its inventory to cash. However, the business can shorten this time by using sales forecasting to predict future sales. It can also reduce total unsold and/or rejected products by using forecasting, as the cost of unsold and/or rejected products ranged from 43.57 to 1,045.63 THB from June to November 2021. Sales forecasting can be done by using exponential smoothing with an alpha of 0.5. Based on research observation on sales data from June to November 2021, exponential smoothing forecasting with alpha equal to 0.5 had an RMSE (root mean square error) of 3,092.46 THB.

5. Conclusion

By profitability ratios, liquidity ratios, asset management ratios, and common-size analysis, Superbram earned the highest profit among others from June to November 2021, with a return on sales of 0.32 per month. Sarisa Merapi can fund its daily expenses for up to 413 days based on its total cash on hand. Soto Mantenan was a business that could efficiently manage its inventory, fixed asset, and total asset when compared to other enterprises. PLS and Sarisa Merapi, on the other hand, had the biggest current assets and fixed assets, respectively. PLS used 57.27 percent of its accumulated retained earnings to run the business, whereas Sarisa Merapi used 92.81 percent of its capital. In terms of median industry ratios, the

profitability ratios of all selected businesses were lower than the median of all businesses in their sector. It meant that all selected businesses have to increase their net income to match the industry's central tendency for profitability ratios. Meanwhile, because MSMEs had fewer assets than large companies, the median asset management ratios of all selected businesses were more effective than the median for their sector. However, total sales were reduced during the pandemic thus affecting all asset management ratios longer than before the pandemic. Furthermore, as a result of the lower sales, the percentage of depreciation and amortization expense was higher than other expenses for certain businesses.

As recommendations, Sarisa Merapi can create additional sales by leasing its production machines to other MSMEs, Soto Mantenan can provide new variation products, and Superbram can be more active on e-marketplaces to reach out to more customers and sales. To reduce the cost, Rumah Ketela should adjust its product prices based on a new cost breakdown by research investigation and recalculate its other expenses, whilst PLS can use exponential smoothing to reduce the days in inventory outstanding and the cost of unsold and/or rejected products.

In future research, the researchers might increase the number of samples to make the results more reliable, as well as include other financial analysis tools to gather more data from business performance and provide a more comprehensive picture before making suggestions to businesses. Besides, the researcher can analyze the financial performance of businesses before and during the pandemic to determine which businesses' financial performance is most influenced by the outbreak.

6. Acknowledgements

7. References

BPS-Statistics of Magelang Regency. (2021). *Statistics of Village Potential in Magelang Regency 2020 (translated from Indonesian)*. Magelang Regency, Indonesia: BPS-Statistics of Magelang Regency.

Brijlal, P., Enow, S., & Isaacs, E. B. H. (2014). The Use of Financial Management Practices by Small, Medium and Micro Enterprises: A Perspective from South Africa. *Industry and Higher Education, 28*(5), 341-350. doi:10.5367/ihe.2014.0223

Bui, T. D., Nguyen, H. H., & Ngo, V. M. (2021). Financial leverage and performance of SMEs in Vietnam: Evidence from the post-crisis period. *Economics and Business Letters, 10*(3), 229-239. doi:10.17811/ebl.10.3.2021.229-239

Cooperatives and Small and Medium Enterprise Office in Special Region of Yogyakarta. (2021). Basic Data of Cooperatives and SMEs (translated from Indonesian). Retrieved December 25, 2021, from http://bappeda.jogjaprov.go.id/dataku/data_dasar/index/107-umkm

DeAngelis, K. J., & Ayers, S. (2009). What Does Average Really Mean? Making Sense of Statistics. *School Business Affairs, 75*(1), 18-20.

Gibson, C. H. (2009). *Financial Reporting &Analysis* (11th ed.). United States: South-Western Cengage Learning.

Indonesian Government. (2008). *Law of the Republic of Indonesia Number 20 Year 2008 regarding Micro, Small, and Medium Enterprises*: State Gazette of the Republic of Indonesia of 2008 Number 93.

Jagels, M. G., & Ralston, C. E. (2007). *Hospitality Management Accounting* (9th ed.). Canada: John Wiley and Sons, Inc.

Kotane, I., & Kuzmina-Merlino, I. (2017). Analysis of Small and Medium Sized Enterprises' Business Performance Evaluation Practice at Transportation and Storage Services Sector in Latvia. *Procedia Engineering, 178*, 182-191. doi:10.1016/j.proeng.2017.01.093

Lasher, W. R. (2005). *Practical Financial Management* (4th ed.). Ohio: South-Western.

Muslichah, Sunarto, Amir, K. A., Sri, I., & Hariyanto. (2020). The Adoption of Financial Accounting Standards for Small Medium Enterprises by Muslim Entrepreneurs *Journal of Accounting, Business and Management, 27*(1), 54-65.

Nance, T. (2018). *Cash management for equine veterinary practices: cash is King.* Paper presented at the Proceedings of the 64th Annual Convention of the American Association of Equine Practitioners, San Francisco, California, USA, 1-5 December 2018.

Nursafitri, A., Suroso, & Faddila, S. P. (2021). Financial Ratio Analysis to Assess Financial Performance (Case Study of Companies Listed on the Indonesia Stock Exchange in 2017-2020) (translated from Indonesian). *Jurnal Mahasiswa Manajemen dan Akuntansi JMM&A, 1*(3), 117-125.

Oladejo, M. O., Akande, O. O., & Yinue, O. (2017). Cash Management Practice and Medium Scale Enterprises performance: Perspective of Selected Food and Beverages Firm in Oyo state Nigeria. *International Journal of Managerial Studies and Research, 5*(4), 83-92. doi:10.20431/2349-0349.0504012

Robinson, T. R., van Greuning, H., Henry, E., & Broihahn, M. A. (2008). *International Financial Statement Analysis*: Wiley, Hoboken.

Runtunuwu, A. G., Mangantar, M., & Tumbuan, W. J. F. A. (2021). Financial Performance Analysis on Registered Agro-Industry Companies on the Indonesia Stock Exchange in the 2018-2020 Period (translated from Indonesian). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi, 9*(4), 605-614. doi:https://doi.org/10.35794/emba.v9i4.36473

Shrotriya, V. (2019). Common Size Statement: a Technique of Financial Analysis. *International Journa of Research and Analytical Reviews, 6*(2), 424-430.

Sinha, G. (2012). *Financial Statement Analysis* (2nd ed.). New Delhi: PHI Learning Private Limited.

Subramanyam, K. R., & Wild, J. J. (2009). *Financial Statement Analysis* (10th ed.). New York: McGraw-Hill/Irwin.

The Ministry of Cooperatives and Small and Medium Enterprises of The Republic of Indonesia. (n.d.). Data Development of Micro, Small, Medium (MSMEs) and Large Business (LB) 2018 - 2019 (translated from Indonesian). Retrieved March 1, 2021, from https://www.kemenkopukm.go.id/uploads/laporan/1617162002_SANDINGAN_DATA_UMKM_2018-2019.pdf

Unlimited Consulting and Auditing Partnership "Avdeev & Co.". (n.d.). Food and Kindred Products: Average Industry Financial Ratios for U.S. Listed Companies. Retrieved April 6, 2021, from https://www.readyratios.com/sec/industry/20/

Wahyono, B. (2018). Financial Performance Analysis of SMEs Before and After Initial Public Offering (IPO) on the Indonesia Stock Exchange (IDX). *BISE: Jurnal Pendidikan Bisnis dan Ekonomi, 4*(2). doi:10.20961/bise.v4i2.27016

Zietlow, J., Hankin, J. A., Seidner, A., & O'Brien, T. (2018). *Financial Management for Nonprofit Organizations: Policies and Practices* (3rd ed.). Canada: John Wiley and Sons, Inc.