FINANCIAL PERFORMANCE ANALYSIS OF FOOD SMES: A CASE STUDY IN SUKOHARJO REGENCY

Mei Tri Sundari^{*}, Endang Siti Rahayu, Heru Irianto, Sugiharti M. Handayani[,] Setyowati

Department of Agribusiness, Faculty of Agriculture, Universitas Sebelas Maret Surakarta, Jawa Tengah 57126 Indonesia *Corresponding author: meitri@staff.uns.ac.id

Abstrak: Penelitian ini bertujuan untuk mengetahui biaya, penerimaan, keuntungan usaha, dan kelayakan usaha Usaha Kecil Menengah (UKM) makanan. Metode yang digunakan dalam penelitian ini adalah deskriptif analitik dengan teknik survei. Penelitian ini melibatkan pengusaha UKM makanan di Kabupaten Sukoharjo dengan jumlah responden sebanyak 50 orang. Metode pengambilan sampel menggunakan metode simple random sampling. Data diperoleh dengan metode wawancara dan observasi. Teknik analisis yang digunakan adalah analisis laba, R/C rasio, analisis likuiditas, solvabilitas, rentabilitas bisnis, dan analisis risiko. Hasil penelitian menunjukkan nilai RoA sebesar 12,102% sehingga UKM Pangan di Kabupaten Sukoharjo menunjukkan hasil yang memungkinkan untuk dikembangkan. Nilai solvabilitas UKM mewakili angka 0,016%, berdasarkan kreditur yang mendanai bisnis sebesar 0,016% dari total aset yang dimiliki.

Kata kunci: analisis keuangan, bisnis makanan, kelayakan, UKM makanan

Abstract: This research aims to determine the costs, receipts, business advantages, and business feasibility of food Small Medium Enterprise (SMEs). The primary method used in this study is analytical descriptive with survey techniques. This research involved food SMEs entrepreneurs in Sukoharjo Regency with several 50 respondents. The sampling method uses a simple random sampling method. Data is obtained by interview and observation methods. The analytical techniques used are profit analysis, R/C ratio, liquidity analysis, solvency, business rentability, and risk analysis. The results showed that the RoA value was 12.102% so that the Food SMEs in Sukoharjo Regency showed possible outcomes to be developed. SMEs' solvency value represents a figure of 0.016%, based on creditors funding the business of 0.016% of the total assets held.

Keywords: financial analysis, Food business, feasibility, UKM food

INTRODUCTION

The industrial sector has an essential role in improving economic conditions in Indonesia. The industrial sector is divided into several sub-sectors: the food and beverage industry sub-sector. Food is a basic need that plays a crucial role in a nation's life (Sumadi, Jumintono, & Ardiani, 2020). Food and beverages are essential aspects of the food sector (Komariah, Razzaq, Nugraheni, Lastariwati, & Mahfud, 2020). Gross Regional Domestic Product of the Indonesian food and beverage industry sub-sector in 2014 amounted to 502,856.2 billion rupiahs. 2015 amounted to 540,756.4 billion rupiahs, in 2016 amounted to 585,786.3 billion rupiahs, in 2017 amounted to 639,834.4 billion rupiahs 2018, amounting to 690,462.5 billion rupiahs (Badan Pusat Statistik, 2019). Innovation-based entrepreneurship aims to broaden government policy in economic development (Child et al., 2017).

The new paradigm of Industry 4.0 is becoming a revolution where people and machines may communicate over large networks or good networks. The revolution is carried out on an economy of scale for as much production costs as possible. The industry needs to modernize its production processes to multiple locations or decentralize them properly (Di Nardo, 2020); as the industry's foundation, Small and Medium Enterprises impact the Industrial Revolution 4.0 in building economic growth (Mittal, Khan, Romero, & Wuest, 2018; Yu & Schweisfurth, 2020). SMEs do not exploit all the resources to implement Industry 4.0 but use Cloud Computing and Internet of Things adoption (Moeuf, Pellerin, Lamouri, Tamayo-Giraldo, & Barbaray, 2018; Urban, Łukaszewicz, & Krawczyk-Dembicka, 2020). Industry 4.0 to small and medium enterprises (SMEs) in food and beverages has an important role. The trust of SMEs in implementing Industry 4.0 is defined as the level of trust in applying appropriate technology (Ushada, Wijayanto, Trapsilawati, & Okayama, 2020). Small and Medium Enterprises have an essential role in the economy in Indonesia. Small and Medium Enterprises in Sukoharjo Regency has the potential to be competitive. The number of SMEs in Sukoharjo reached 19,804 units operating in various sectors. Small and Medium Enterprises businesses have a business turnover of around Rp3.4 trillion and are constantly increasing for each year. Small and Medium Enterprises are considered essential and can open up jobs to improve the community's economy. Small and medium enterprises (SMEs) are the backbone of a country's economic growth and development (Chonsawat, 2020). Small and Medium Enterprises in Sukoharjo Regency have the opportunity to be developed. Small and medium enterprises (SMEs) are stricter in performance when compared to other businesses (Royo-Vela & Velasquez Serrano, 2021). Small and Medium Enterprises that have not realized the strategic value of management and their resources cannot compete in knowledge management (Cerchione & Esposito, 2017). Economic empowerment in the digital era can be used to identify opportunities and challenges in business (Makhkamova & Saidmurodov, 2019).

Small and Medium Enterprises in the food sector face many specific problems that hinder their existence and need to be identified

and supported. Knowing SMEs' position correctly must consider various criteria in operational activities, finance, marketing, and business strategy (Gardijan Kedžo & Lukač, 2020). Small and medium enterprises increasingly recognize the benefits and efficiency of resources in creating competitive advantages and accessing new markets (Grifell-Tatjé, Lovell, & Turon, 2018; Rizos et al., Medium 2016). Small and Enterprises innovation affects financial performance and the work environment (Shashi, Centobelli, Cerchione, & Singh, 2019). socio-economy in the form of entrepreneurship has become a model of the national economy (Zbarsky, Trusova, Sokil, Pochernina, & Hrytsaienko, 2020).

A practical and robust assessment method is needed to support the SMEs' implementation in the food sector to improve the food system's long-term sustainability (Gimenez-Escalante, Garcia-Garcia. & Rahimifard, 2020). Small businesses can provide healthy products. However, technical infrastructure support, as well and incentives, will facilitate the shift from staple foods to more nutritious staples (Karpyn et al., 2018). Future entrepreneurs must formulate a broader business plan and develop productive science and technology (Asciuto, Schimmenti, Cottone, & Borsellino, 2019). SMEs must optimize good service with a business strategy with production considerations (Shirazi, 2018). In addition to its production roots, sales, and marketing strategies also significantly impact business outcomes (Ukubassova, Primzharova, Daribayeva, Galiyeva, & Nurgaliyeva, 2020). The growth of small businesses in a region needs to have support from the government to provide policies to make it easier to build a business (Powe, 2018), the company creates social value so that it contributes to the socioeconomic progress of society (Grifell-Tatjé et al., 2018).

Measurement of financial performance is needed to evaluate a business's success and business planning for the next period. Measuring economic performance can help optimise finance for SMEs (Snieška, Navickas, Havierniková, Okręglicka, & Gajda, 2020). SMEs often have concerns about increasing productivity, material use, waste management, and sustainability (Sahu, Padhy, Das, & Gautam, 2021). Potential returns in the bank's branching strategy at the sub-national level will lead to financial and inclusive growth in a country (Hossain, Yoshino, & Taghizadeh-Hesary, 2020). Financial status can be checked quantitatively through various financial statement analysis tools. Financial statement analysis tools can be in the form of liquidity ratios, solvency, profitability, and activities that can determine a company's health. Financial performance is influenced by intellectual capital, structural capital, and relationship capital (Sardo, Serrasqueiro, & Alves, 2018).

The business feasibility assessment analyzes potential business budgets, pricing options, and business organizing (Guerci et al., 2018). The financial aspect is an important aspect and must be considered in the continuity of a business. The financial part can be the basis for knowing how long it will take to return its capital. The purpose of a company is

Table 1. Respondent characteristics

to obtain maximum profit and develop for an extended period. This research is based on the lack of institutions that precisely assess SMEs financial performance in the Sukoharjo Regency. This research is needed to find out the number of revenue costs and business profits, business feasibility, financial performance, and business risks of food SMEs in Sukoharjo Regency.

METHOD

The method used in this research is the descriptive-analytical survey technique. This study involved food SME entrepreneurs in Sukoharjo Regency with a total sample of 50. The sampling method used was simple random sampling—data obtained by interview and observation. The analysis method used is profit analysis, R / C ratio, liquidity analysis, business solvency, and profitability.

No.	Respondent Characteristics	Information	Respondent	Percentage
1	Age	<30 Years	6	12
		31-40 Years	15	30
		41-50 Years	17	34
		>50 Years	12	24
	Total		50	100
2	Education	Primary School	2	4
		Junior High School	7	14
		Senior High School	24	48
		Bachelor	17	34
	Total		50	100
3	Number of family members	1 - 2 People	3	6
		3 - 4 People	39	78
		5 - 6 People	7	14
		> 6 People	1	2
	Total		50	100
4	Length of Business	< 7 years	22	44
		8 - 15 Years	14	28
		15 - 22 Years	9	18
		> 22 Years	5	10
	Total		50	100
5	Labor	1-5 People	39	78
		6-10 People	8	16
		11-15 People	3	6
	Total		50	100

RESULT AND DISCUSSION

Respondent Characteristic

The respondents' characteristics are a general description of age, education, number of family members, length of business, and number of workers. The results of the characteristics of the respondents can be seen in Table 1.

Table 1 shows that respondents' age is dominated by 40 to 50 years, as many as 17 people. The respondents' education level was dominated by high school education, with 24 people. The number of family dependents shows 3-4 dependents as many as 39 people. Businesses dominate the business length for SMEs, with small businesses of 7 years as many as 22 people. The number of workers who dominate SMEs is 1-5 people with 39 people. The existence of SMEs can help absorb labour and reduce unemployment in Sukoharjo Regency.

SMEs Business Feasibility

The calculation of business feasibility at SMEs determines that a business can manage the capital it owns. The results of the feasibility of SMEs business in the Sukoharjo district can be seen in Table 2.

 Table 2. Business Feasibility of Food SMEs in Sukoharjo Regency

No	Component	Value (Rupiah)
1.	Costs	21,421,953.69
2.	Revenue	35,986,400.00
3.	Profit	14,564,446.31
4.	R/C Ratio	1.68

Table 2 shows the calculation result of the R / C ratio of 1.68, which means that each expense is Rp1 can generate revenue of Rp1.68. The R / C value indicates that SMEs are feasible to develop in the Sukoharjo district

SMEs Financial Analysis

Business health can include the aspects of capital owned by the business, the quality of productive assets, the overall management situation, and the efficiency (profitability) of the company. The results of the SMEs' financial analysis can be seen in Table 3.

 Table 3. Financial Health of Food SMEs in Sukoharjo Regency

No	Component	Value
1.	Liquidity	0.35916
2.	Debt to Asset Ratio (DAR)	0.01555
3.	Debt to Equity Ratio (DER) (%)	0.02431
4.	Ltddter (%)	0.47141
5.	Net Profit Margin (NPM) (%)	13.95187
6.	Operating Profit Margin (OPM) (%)	36.97429
7.	Basic Earning Power (Bep)	13.79441
8.	RoA	12.10197

The liquidity in the food SMEs business in Sukoharjo Regency is on average 0.359 because most of the food SMEs businesses in Sukoharjo Regency do not have debt. So that part of it cannot be calculated because the current ratio is also unknown. After all, the current debt from his business is Rp0. The financial infrastructure and tax regulations significantly increase the opportunities for SMEs to choose formal credit and reduce informal credit (Lin et al., 2020)

The debt-to-asset ratio of the food SMEs business in Sukoharjo has a ratio value of 0.016%, which means creditors fund 0.016 percent of total assets owned. The greater the ratio value, the more outstanding the debt owed by the company. The obligation to equity ratio shows a value of 0.024% ratio, which means that SMEs are financed by debt which is 0.024 percentage of total equity. The greater the ratio value, the more outstanding the debt owed by the company.

The LTDtER SMEs value shows a ratio of 0.471%, which means the long-term debt is 0% of its equity value. The greater the value ratio, the more outstanding the long-term debt the company has. The net profit margin value obtained is 13,951%, which means that the higher the net profit margin ratio, the greater the net profit. The operating profit margin value is 36.974% or 0.36974, which means that SMEs can increase net sales and minimize expenses to increase operating profit.

The Basic Earning Power (BEP) value shows a ratio of 13.794%, which means that its investment management is efficient. The higher the BEP value means the more effective and efficient managing all assets owned by SMEs in generating profit before interest and taxes. The RoA value shows a ratio of 12.102%, which means that, on average, SMEs can generate a net profit of 12.102% of the company's total assets. SMEs' financial, social, and environmental performance is influenced by several factors such as innovation and entrepreneurial orientation, government actions, and the manufacturing system.

CONCLUSION

The results showed that the RoA value was 12.102%, which means that SMEs can generate a net profit of 12.102% of the total assets owned. The calculation of the R / C ratio for Food SMEs in Sukoharjo Regency shows the results are feasible to be developed. The liquidity value shows a low value because SMEs do not have debt, so they cannot deliver liquidity value. The solvency value of SMEs offers 0.016%, which means creditors fund the business of 0.016% of the total assets owned.

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REFERENCES

- Asciuto, A., Schimmenti, E., Cottone, C., & Borsellino, V. (2019). A Financial Feasibility Study of an Aquaponic System in a Mediterranean Urban Context. Urban Forestry and Urban Greening, 38, 397–402. https://doi.org/10.1016/j.ufug.2019.02.00 1
- Badan Pusat Statistik. (2019). Produk Domestik Regional Bruto (Lapangan Usaha).
- Cerchione, R., & Esposito, E. (2017). Using Knowledge Management Systems: A Taxonomy of SME Strategies. International Journal of Information Management, 37(1), 1551–1562. https://doi.org/10.1016/j.ijinfomgt.2016. 10.007
- Child, J., Hsieh, L., Elbanna, S., Karmowska, J., Marinova, S., Puthusserry, P., ...Zhang, Y. (2017). SME International Business Models: The Role of Context

and Experience. *Journal of World Business*, 52(5), 664–679. https://doi.org/10.1016/j.jwb.2017.05.00 4

- Chonsawat, N. (2020). Defining SMEs' 4.0 Readiness Indicators. *Applied Sciences*, *10*(24), 124–134. https://doi.org/https://doi.org/10.3390/ap p10248998
- Di Nardo, M. (2020). Developing a conceptual framework model of industry 4.0 for industrial management. *Industrial Engineering and Management Systems*, *19*(3), 551–560. https://doi.org/10.7232/iems.2020.19.3.5 51
- Gardijan Kedžo, M., & Lukač, Z. (2020). The financial efficiency of small food and drink producers across selected European Union countries using data envelopment analysis. *European Journal of Operational Research*. https://doi.org/10.1016/j.ejor.2020.01.06 6
- Gimenez-Escalante, P., Garcia-Garcia, G., & Rahimifard, S. (2020). A method to assess the feasibility of implementing distributed Localised Manufacturing strategies in the food sector. *Journal of Cleaner Production*, 266, 121934. https://doi.org/10.1016/j.jclepro.2020.12 1934
- Grifell-Tatjé, E., Lovell, C. A. K., & Turon, P. (2018). The Business Foundations of Social Economic Progress. *BRQ Business Research Quarterly*, 21(4), 278–292. https://doi.org/10.1016/j.brq.2018.08.006
- Guerci, M. J., Norton, G. W., Ba, M. N., Baoua, I., Alwang, J., Amadou, L., ... Muniappan, R. (2018). Economic Feasibility of an Augmentative Biological Control Industry in Niger. Crop Protection. 110. 34-40. https://doi.org/10.1016/j.cropro.2018.03. 014

- Hossain, M., Yoshino, N., & Taghizadeh-Hesary, F. (2020). Optimal branching Strategy, Local Financial Development, and SMEs' Performance. *Economic Modelling*. https://doi.org/10.1016/j.econmod.2020. 03.027
- Karpyn, A., DeWeese, R. S., Pelletier, J. E., Laska, M. N., Ohri-Vachaspati, P., Deahl-Greenlaw, A., ... Jilcott Pitts, S.
 B. (2018). Examining the Feasibility of Healthy Minimum Stocking Standards for Small Food Stores. *Journal of the Academy of Nutrition and Dietetics*, *118*(9), 1655–1663. https://doi.org/10.1016/j.jand.2017.12.00 6
- Komariah, K., Razzaq, A. R. B. A., Nugraheni, M., Lastariwati, B., & Mahfud, T. (2020). The antecedent factor of tourists' intention to consume traditional food. *Geojournal of Tourism and Geosites*, 32(4), 1209–1215. https://doi.org/10.30892/GTG.32403-559
- Makhkamova, G. M., & Saidmurodov, K. (2019). Financial Technologies as A Factor of Financial Inclusion of Women. Advances in Business-Related Scientific Research Journal, 10(2).
- Mittal, S., Khan, M. A., Romero, D., & Wuest, T. (2018, October). A Critical Review of Smart Manufacturing & Industry 4.0 Maturity Models: Implications for Small and Medium-sized Enterprises (SMEs). *Journal of Manufacturing Systems*, Vol. 49, pp. 194–214. Elsevier B.V. https://doi.org/10.1016/j.jmsy.2018.10.0 05
- Moeuf, A., Pellerin, R., Lamouri, S., Tamayo-Giraldo, S., & Barbaray, R. (2018). The Industrial Management of SMEs in the Era of Industry 4.0. *International Journal of Production Research*, 56(3), 1118–1136. https://doi.org/10.1080/00207543.2017.1 372647
- Powe, N. A. (2018). Non-amenity Business

Growth and Small Town Revival. Journal of Rural Studies, 62, 125–133. https://doi.org/10.1016/j.jrurstud.2018.07 .013

- Rizos, V., Behrens, A., van der Gaast, W., Hofman, E., Ioannou, A., Kafyeke, T., ... Topi, C. (2016). Implementation of Circular Economy Business Models by Small and Medium-sized Enterprises (SMEs): Barriers and Enablers. Sustainability (Switzerland), 8(11). https://doi.org/10.3390/su8111212
- Royo-Vela, M., & Velasquez Serrano, M. (2021). Value Co-Creation Process and Measurement in 40SMEs: An Research B2B Exploratory in а Marketing Innovation Context. Administrative Sciences, 11(1), 20. https://doi.org/10.3390/admsci11010020
- Sahu, A. K., Padhy, R. K., Das, D., & Gautam, A. (2021). Improving Financial and Environmental Performance through MFCA: A SME Case Study. *Journal of Cleaner Production*, 279, 123751. https://doi.org/10.1016/j.jclepro.2020.12 3751
- Sardo, F., Serrasqueiro, Z., & Alves, H. (2018). On the Relationship between Intellectual Capital and Financial Performance: A Panel Data Aanalysis on SME Hotels. *International Journal of Hospitality Management*, 75, 67–74. https://doi.org/10.1016/j.ijhm.2018.03.00 1
- Shashi, Centobelli, P., Cerchione, R., & Singh, R. (2019). The Impact of Leanness and Innovativeness on Environmental and Financial Performance: Insights from Indian SMEs. International Journal of Production Economics, 212, 111–124. https://doi.org/10.1016/j.ijpe.2019.02.01 1
- Shirazi, B. (2018). Towards a Sustainable Interoperability in Food Industry Small & Medium Networked Enterprises: Distributed Service-oriented Enterprise Resources Planning. *Journal of Cleaner*

Production, *181*, 109–122. https://doi.org/10.1016/j.jclepro.2018.01. 118

- Snieška, V., Navickas, V., Havierniková, K., Okręglicka, M., & Gajda, W. (2020). Technical, information and innovation risks of industry 4.0 in small and medium-sized enterprises – Case of Slovakia and Poland. Journal of Business Economics and Management, 21(5), 1269–1284. https://doi.org/10.3846/jbem.2020.12279
- Sumadi, Jumintono, & Ardiani, F. (2020). Supply chain brown sugar agroindustry in Banyuwangi district: Analysis study with a dynamic system approach. International Journal of Supply Chain Management, 9(1), 626–632.
- Ukubassova, G. S., Primzharova, K. K., Daribayeva, A. K., Galiyeva, A. H., & Nurgaliyeva, A. S. (2020). The development of small and medium-sized enterprises in the modernization of industrial production in the case of the power complex enterprise. *Industrial Engineering and Management Systems*, 19(1). https://doi.org/10.7232/iems.2020.19.1.1 03
- Urban, W., Łukaszewicz, K., & Krawczyk-Dembicka, E. (2020). Application of

Industry 4.0 to the Product Development Process in Project-Type Production. *Energies*, 13(21). https://doi.org/https://doi.org/10.3390/en 13215553

- Ushada, M., Wijayanto, T., Trapsilawati, F., & Okayama, T. (2020). Modeling SMEs 'Trust in the Implementation of Industry 4. 0 using Kansei Engineering and Artificial Neural Network : Food and Beverage SMEs Context. Journal of Engineering and Technological Sciences, 53(2). https://doi.org/10.5614/j.eng.technol.sci. 2021.53.2.3
- Yu, F., & Schweisfurth, T. (2020). Industry 4.0 technology implementation in SMEs – A survey in the Danish-German border region. *International Journal of Innovation Studies*, 4(3), 76–84. https://doi.org/10.1016/j.ijis.2020.05.001
- Zbarsky, V. K., Trusova, N. V., Sokil, O. H., Pochernina, N. V., & Hrytsaienko, M. I. (2020).Social and economic determinants for the development of resource potential of small forms of agrarian production in Ukraine. Industrial Engineering and Management Systems. 133-142. 19(1), https://doi.org/10.7232/iems.2020.19.1.1 33