

The Influence of Collaborative Networks, Information Technology, Entrepreneurial Orientation Towards Financial Literacy At SMEs Batik Surakarta

Edi Wibowo ¹Tri Ratnawati ²

17 August 1945 University Surabaya, Indonesia

Email: 1271900023@surel.untag-sby.ac.id¹ triratnawati@untag-sby.ac.id²

Abstract

This study aims to examine and analyze the influence of collaborative networks, information technology, entrepreneurial orientation on financial literacy. This study explains the causal relationship between variables, data collection was carried out using a survey method on the entire population of 150 batik micro entrepreneurs in Surakarta. Source of data is primary data obtained directly from respondents based on the results of the questionnaire. The data analysis technique used the SPSS. The results showed that the variables of Cooperation Network, Information Technology, Entrepreneurship Orientation had a significant positive effect on Financial Literacy. Keywords: Financial Resilience, Collaborative Network, Information technology, Entrepreneurial Orientation, Financial Literacy, Financial Inclusion innovation capability, Financial Quotient.

Keywords: Collaborative Networks, Information Technology, Entrepreneurial Orientation, Financial Literacy

INTRODUCTION

Increased economic growth in countries affected by the Covid-19 virus around the world such as America, Spain and Italy make the world economic situation worse worsened. Some institutions even predict economic weakness world, including the *International Monetary Fund* (IMF) which projects economy global grow minus in number - 3%. Impact plague Covid-19 to economy countries in world also very terrible. *Moody's Investor Service* predicts Indonesia's economic growth in 2020 will experience deceleration on number 4.8% to Product Gross Domestic Product (GDP). In a crisis situation like this, the Micro, Small and Medium Enterprises (MSMEs) really need special attention from the government because it is the largest contributor to GDP and can be mainstay in absorption power work, substitute production goods consumption or half so. It is recorded that there are around 37,000 Small Medium and Micro Business actors



(MSME) which report to Ministry Cooperative and SMEs feel impact of the Covid-19 pandemic. From the report data, as much as 56% MSMEs reported that there was a decline in sales, 22% admitted to having difficulties capital, 15% report occur distribution which hampered, and 4% report difficulty ingredient raw (Media, 2020). Pandemic Covid-19 compelshop wholesaler and market clothes so in Jakarta must close while trying. Condition this impact to craftsman cloth batik in area. Including in inside craftsman batik in Surakarta, Java Middle. The number of MSMEs in the Central Java region in 2019 reached 4.2 million MSMEs, of which 85.09% are micro enterprises; 14.19% is small business; 0.57% of medium-sized enterprises and only 0.15% of small-scale enterprises big.

The number of Batik UMKM business units in Surakarta City has decreased over the last 2 years. The decline in the number of business units and labor is due to several batik businesses going out of business as a result of rising production costs which are not followed by an increase in people's purchasing power. Based on observation writer as well as results Interview with a number of Batik Micro Enterprises in Surakarta City show that Micro Business actors often experience lateness in its development. Thing this because various problem conventional which no resolved completely (closed loop problems), such as human resource capacity problems, financing, marketing and various other issues related to management effort, so that Micro Business difficult compete with company- large companies. It is important to conduct a survey on the resilience of batik microfinance in Surakarta. Currently, the total number of batik microbusinesses registered with the Surakarta City Cooperative and SME Service is 174 entrepreneurs. The identified phenomena are (1) the resilience of batik microfinance in Surakarta during the 2016-2021 period, the majority of 75% of Micro Batik Surakarta is very dependent on bank loans. (2) Retained Earnings is one of the alternative sources of internal funding. Data shows that during 2016-2021 on average there was a decrease in profit of around 20%. Banks as indirect financing institutions provide high interest rates and this has an impact on the resilience of batik microfinance. (3) Related to this, the financial management of micro batik has not shown significant performance, and the resulting impact is a decrease in profit. This indication shows that financial resilience is declining, especially during the 2020-2021 Pandemic period. Financial performance is proxied from the growth of Leverage and ROA during 2016 - 2021 as an indication that the Surakarta batik micro business has not shown a good level of financial resilience.

Researchers need to follow up on these problems, by conducting *Focused Group Discussions* on Micro Batik Surakarta entrepreneurs. The results of the observations identified 3 main factors causing the decline in financial resilience, namely *financial literacy, financial inclusion*, and innovation capability. On time pandemic Covid-19 like moment this para owner effort suedto always innovate so that business owners can create performancesustainable. Facing competition in the global market, MSMEs must be able to compete on the basis of technology, innovation, creativity and imaginationno only depend on price and quality just. In addition, the ability in management finance is necessary election source funding



and election the place allocate fund for investation also need improved. According to research conducted by (Fatoki, 2014), literacy finance (*Financial Literacy*) take effect by positive toability in taking decision finance company for the sake of company sustainability.

Previous research conducted by (Hagedorn et al., 2016) shows that *Collaborative Networks* have a significant effect on *Financial Literacy*. One of the ways in which MSME financial resilience can be realized is by: create a network of partnerships with various parties, the wider the collaborative network means that MSMEs will benefit in the form of cooperation in achieving business development and overcoming financial difficulties so that MSME financial resilience will increase. In line with the theory (Teja, 2017), collaboration with other companies in a business ecosystem will result in competence to achieve minimum critical mass and higher probability so that innovative financial-related products will be able to be successfully implemented.

Supporting factors to improve the resilience and performance of SMEs is the use of information technology (BPS, 2019). Use of technology Information provided by SMEs is related to many factors, including: intention or interest for use technology because existence confidence thatwhen use something technology eat results which achieved in profession will increase or more good. In today's digital era, competition to achieve more market share big more strict. Use technology information Becomes wrong one strategyappropriate manner so as to increase the intention to use information technology for Entrepreneurs are no exception to SMEs. Use of Information Technology based Internet on era Revolution Industry 4.0 for business by on line hasgrow with rapidly.

Research (Chandra, 2017) shows that empirically there are results positive significant entrepreneur orientation, culture organization, internal factors on business resilience directly and indirectly influencing organizational performance through corporate entrepreneurship and can have an impact on improving the performance of the Batik UMKM organization Write in East Java. Entrepreneurial Orientation which could influence Corporate Entrepreneurship Capability with good proven that have a strong influence on improving organizational performance and dimensions Culture Organization produce score positive also in increase Performance Organization through enhancement Corporate Entrepreneurship Capability.

The novelty of this study, (1) explores the previous findings to develop a strategy model to improve the resilience of batik microfinance in Surakarta through an effective assessment of *financial literacy, financial inclusion*, innovation capability, *financial quotient* from the aspects of *Collaborative Network, IT*, and *Entrepreneurial Orientation*. (2) adding new factors or indicators to enrich the model used in this study. The addition of new indicators was obtained from the results of a *mini-focus group discussion* with Surakarta batik micro entrepreneurs. For the *Financial Resilience* variable, the researcher added two new indicators, namely anticipating financial difficulties and financial planning. On the *Collaborative Networks* variable researchers added a new



indicator, namely the intensity of collaboration. In the *Financial Literacy* variable, the researcher added a new indicator, namely knowledge about investment. In the *Financial Inclusion* variable, the researcher adds a new indicator, namely quality and welfare. In the *Financial Quotient* variable, the researcher adds a new indicator, namely the ability to understand sign macro economy.

With the IPO (Input-Process-Output) approach, the *Financial Literacy model* of batik micro business in Surakarta can be achieved through a process that requires 3 main inputs from the entrepreneur, namely *Collaborative Network, IT*, and *Entrepreneurial Orientation*.

METHOD

Research design

The research design is formulated with the aim of having a clear direction and targets to be achieved in the research. Step most beginning in study is identification problem which meant as affirmation boundaries problem so that scope study no go out from the goal. Step next is choosing the research instrument. Research variable measuring instrument plays an important role in obtaining accurate information and Trusted. The next step is to determine the sampling technique used in study and collection data study from field. Data research is collected either through data collection instruments, observation nor past data documentation. This research is a research quantitative with type of descriptive research, where in descriptive analysis serve fact by systematic so that could more easy for understoodand concluded.

Population and Sample

Population that is whole target which should researched and on population that results researcher enforced. Population is region generalization which consist on object/ subject which have quality and certain characteristics defined by the researcher to be studied and then drawn conclusion (Sugiyono, 2013). Population in study this is All Micro Batik Entrepreneurs in Surakarta which registered in Service Cooperative and SMEs Surakarta City, that is amount 150 batik micro enterprises.

Saturated sampling technique is a sampling technique if all members of the population are used as samples (Sekaran, 2013). This study uses a saturated sample or a census study because the population is not too large, so that the Micro Batik Entrepreneurs which registered in ServiceCooperative and SMEs The city of Surakarta, amounting to 150 will be used as respondents. Thus the use of the entire population without having to draw a research sample as a unit of observation.

Data Sources and Data Collection Techniques

The data sources of this research are primary data and secondary data. Primary data is a source of data collected by researchers directly without going through intermediaries. While Secondary Data is data taken through intermediaries or



parties who have previously collected the data. In this study, researchers collected data obtained from Batik Micro Enterprises in Surakarta.

The data collection technique in this research is the Questionnaire Technique. Questionnaire technique is a data collection technique that is carried out by giving a set of written questions to respondents to answer, which can be given directly or by post or the internet. This technique was carried out at the Batik Micro Business in Surakarta.

RESULTS AND DISCUSSION

The research results section in the conceptual article will display exploratory data based on research questions, literature reviews, and frameworks that have been directed at the introduction (Darmalaksana, 2019). In this study, the results of the research are shown as follows.

Coefficients a

		Unstandardized Coefficients		Standardize d Coefficient s	T	Sig.
Model		В	Std. Error	Beta		
1	(Constant)	484,20 0	42.154		11,486	,000,
	Collaborative Networks	8,410	2,060	,310	4.082	,000
	Information Technology	-3,460	1,604	-,161	-2,158	,033
	Entrepreneur Orientation	12.201	2,324	-,394	-5,251	,000

a. Dependent Variable: Financial Literacy

From the table above it can be concluded:

a. Test Results for *Collaborative Networks* (X 1)

Obtained p-value (significance) = 0.000 < 0.05 then H0 is rejected and Ha is accepted, meaning that there is a significant effect of *Collaborative Networks* on *Financial Literacy*.

Conclusion: H₁ which states that *Collaborative Networks* has a significant effect on *Financial Literacy* is proven

DOI : ISSN :



b. Test results for Information Technology (X 2)

Obtained p-value (significance) = 0.033 < 0.05 then H0 is rejected and Ha is accepted, meaning that there is a significant effect of *Information Technology* on *Financial Literacy*.

Conclusion: H₁ which states that *Information Technology* has a significant effect on *Financial Literacy* is proven

c. Test results for *Entrepreneur Orientation* (X3)

Obtained p-value (significance) = 0.000 < 0.05, then H0 is rejected and Ha is accepted, meaning that there is a significant influence on *Entrepreneur Orientation* on *Financial Literacy*.

Conclusion: H₁ which states that *Entrepreneur Orientation* has a significant effect on *Financial Literacy* is proven

CONCLUSION

Conclusion

The conclusions obtained from the results of this study are as follows:

- 1. Collaborative Network (CN) has a positive and significant effect on Financial Literacy (FL), this means that the better the quality of the Collaborative Network (CN), the higher the Financial Literacy (FL).
- 2. *Information technology (IT) has a* positive and significant effect on Financial *Literacy (FL)*, this means that the better the quality of *Information technology (IT)*, the higher the *Financial Literacy (FL)*.
- 3. Entrepreneurial Orientation (EO) has a positive and significant effect on Financial Literacy (FL), this means that the better the quality of Entrepreneurial Orientation (EO), the higher the Financial Literacy (FL).

Suggestion

Based on the results of the analysis, suggestions can be given to batik micro entrepreneurs in Surakarta as follows:

- 1. Micro batik entrepreneurs in Surakarta need to improve and understand the purpose of building a collaborative network, so that they can support each other's business success.
- 2. Need to maximize the use of computers to support business development.
- 3. Micro batik entrepreneurs in Surakarta should have a proactive attitude so that their entrepreneurial orientation is getting better which will be beneficial for the progress of their business in the future.
- 4. For further researchers, it is hoped that they can develop research models and develop research variables other than those already included in this study and can enlarge the object of research.

REFERENCE

Abdullah, MA, & Chong, R. (2014). Financial Literacy: An Exploratory Review of the Literature and Future Research. *Journal of Emerging Economies and Islamic Research*, 2 (3), 32. https://doi.org/10.24191/jeeir.v2i3.9631

DOI	:
ISSN	:



- Accounting, J. (2009). Utilization of Information Technology and Its Effect on Individual Performance at Rural Banks in Tabanan Regency. *Scientific Journal of Accounting And Business*, 4 (1), 1–15.
- Aliyani Firdaus, S., Fadilah Ilham, I., Putri Aqidah, L., Aliyani Firdaus, S., Agung Dwi Astuti, S., & Buchori, I. (2020). MSME Strategy to Improve the Economy during the Covid-19 Pandemic during the New Normal. *OECONOMICUS Journal of Economics*, 5 (1), 46–62. https://doi.org/10.15642/oje.2020.5.1.46-62
- Aufarrakhman, mohammad nabilwahid, & Baridwan, DZ (nd). The Effect of Information Technology on the Performance of Batik SMEs in Malang City in the Industrial Revolution 4.0 Era.
- Camarinha-Matos, LM (2014). Collaborative networks: A mechanism for enterprise agility and resilience. *Proceedings of the I-ESA Conferences*, 7 (March), 3–11. https://doi.org/10.1007/978-3-319-04948-9_1
- Camarinha-Matos, LM, & Afsarmanesh, H. (2005). Collaborative networks: A new scientific discipline. *Journal of Intelligent Manufacturing*, 16 (4–5), 439–452. https://doi.org/10.1007/s10845-005-1656-3_
- Carnahan, S., Agarwal, R., & Campbell, B. (2010). The Effect of Firm Compensation Structures on the Mobility and Entrepreneurship of Extreme Performers. *Business*, 902 (July 2006), 1–43. https://doi.org/10.1002/smj
- Cuevas-Vargas, H., Parga-Montoya, N., & Fernández-Escobedo, R. (2019). Effects of Entrepreneurial Orientation on Business Performance: The Mediating Role of Customer Satisfaction—A Formative—Reflective Model Analysis. *SAGEOpen*, 9 (2). https://doi.org/10.1177/2158244019859088
- Das, M., & Rangarajan, K. (2020). Impact of policy initiatives and collaborative synergy on sustainability and business growth of Indian SMEs. *Indian Growth and Development Review*, 13 (3), 607–627. https://doi.org/10.1108/IGDR-09-2019-0095
- Dr. S. Rajamohan and Subha, K. (2014). Information Technology in Financial Inclusion Professor, Alagappa Institute of Management Alagappa. *Parpipex-Indian Journal of Research*, 3 (7), 1–2. https://www.worldwidejournals.com
- Eniola, AA, & Entebang, H. (2017). SME Managers and Financial Literacy. *Global Business Review* , 18 (3), 559–576. https://doi.org/10.1177/0972150917692063
- Eresia-Eke, CE, & Raath, C. (2013). SMME Owners' financial literacy and business growth. *Mediterranean Journal of Social Sciences*, 4 (13), 397–406. https://doi.org/10.5901/mjss.2013.v4n13p397



- Gunardi, A., Ridwan, M., & Sudarjah, GM (2017). The Use of Financial Literacy for Growing Personal Finance. *Journal of Finance and Banking*, 21 (3). https://doi.org/10.26905/jkdp.v21i3.1489
- Hagedorn, EA, Schug, MC, & Suiter, M. (2016). A collaborative approach to financial literacy in the Chicago public schools. *Journal of Private Enterprise*, 31 (1), 79–90.
- Hardilawati, W. Laura. (2020). MSME Survival Strategy in the Midst of the Covid-19 Pandemic *Journal of Accounting and Economics*, 10 (1), 89–98. https://doi.org/10.37859/jae.v10i1.1934
- Herdinata, C., & Kohardinata, C. (2019). The Effect of Regulation and Collaboration on Financial Literacy in Efforts to Implement Financial Technology in Small and Medium Enterprises. *Business and Finance Journal*, 4 (2), 135–140. https://doi.org/10.33086/bfj.v4i2.1358
- Idawati, IAA, & Pratama, IGS (2020). The Effect of Financial Literacy on the Performance and Sustainability of MSMEs in Denpasar City. *Warmadewa Management and Business Journal* (WMBJ), 2 (1), 1–9. https://doi.org/10.22225/wmbj.2.1.1644.1-9
- Infithor, FM (2019). Analysis of the Adaptation of Information Technology Utilization on the Performance of MSMEs in Malang City. *Brawijaya University Malang*, 145020107111014 . chrome-extension://oemmndcbldboiebfnladdacbdfmadadm/https://jimfeb.ub.ac.id/index.php/jimfeb/article/download/6039/5313
- Jiang, H., Gao, S., Song, Y., Sheng, K., & Amaratunga, GAJ (2019). An empirical study on the impact of collaborative R&D networks on enterprise innovation performance based on the mediating effect of technology standard setting. *Sustainability (Switzerland)*, 11 (24). https://doi.org/10.3390/SU11247249
- Kim, H., & Kim, E. (2018). How an open innovation strategy for commercialization affects the firm performance of Korean healthcare IT SMEs. *Sustainability* (*Switzerland*) , 10 (7). https://doi.org/10.3390/su10072476
- Kimmitt, J., & Muñoz, P. (2017). Entrepreneurship and financial inclusion through the lens of instrumental freedoms. *International Small Business Journal: Researching Entrepreneurship*, 35 (7), 803–828. https://doi.org/10.1177/0266242617700699
- Kojo Oseifuh, E. (2010). Financial literacy and youth entrepreneurship in South Africa. *African Journal of Economic and Management Studies*, 1 (2), 164–182. https://doi.org/10.1108/20400701011073473



- Lusardi, A., Hasler, A., & Yakoboski, PJ (2020). Building up financial literacy and financial resilience. *Mind and Society*, *July*. https://doi.org/10.1007/s11299-020-00246-0
- Lyver, MJ, & Lu, TJ (2018). Sustaining innovation performance in SMEs: Exploring the roles of strategic entrepreneurship and IT capabilities. *Sustainability* (*Switzerland*) , 10 (2), 1–27. https://doi.org/10.3390/su10020442
- Masa'deh, R., Al-Henzab, J., Tarhini, A., & Obeidat, BY (2018). The associations among market orientation, technology orientation, entrepreneurial orientation and organizational performance. *Benchmarking*, 25 (8), 3117–3142. https://doi.org/10.1108/BIJ-02-2017-0024
- Mulyana, M., & Sutapa, S. (2016). the Impact of Entrepreneurial Orientation and Collaborative Networks on Creative Industries Performance. *Journal of Management Dynamics*, 7 (2), 166–181. https://doi.org/10.15294/jdm.v7i2.8199
- Pandin, MYR, Ratnawati, T., & Yuhertiana, I. (2021). The Influence of Financial Structure, Financial Literacy and Financial Behavior on Household Financial Resilience Using Financial Inclusion and Financial Decision as Interverning Variables on Cancer Survivor's Household in East Java During the Covid-19 Pandem. *IJEBD (International Journal of Entrepreneurship and Business Development)*, 04 (01), 80–90.
- Rostek, K. (2015). Benchmarking Collaborative Networks A Key to SME Competitiveness.
- Wahyuni, NM, & Sara, IM (2020). The effect of entrepreneurial orientation variables on business performance in the SME industry context. *Journal of Workplace Learning*, 32 (1), 35–62. https://doi.org/10.1108/JWL-03-2019-0033
- Zeng, SX, Xie, XM, & Tam, CM (2010). Relationship between cooperation networks and innovation performance of SMEs. *Technovation*, *30* (3), 181–194. https://doi.org/10.1016/j.technovation.2009.08.003