

# FINANCIAL LITERATION: DETERMINANTS OF FINANCIAL WELL-BEING IN THE BATIK SMALL AND MEDIUM INDUSTRIES IN EAST JAVA

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**Abstract:** The research objective is to examine the financial well-being of batik SMEs in East Java-based on financial literacy, namely: financial knowledge, financial attitudes, and financial behavior. The study population was SMEs Batik practitioners in East Java. The sampling technique used multistage sampling, the first step was to determine the area of research and then determine the batik SMEs of 125 respondents using census methods. Data analysis techniques using SEM-PLS. The results showed that financial knowledge has a significant effect on financial behavior, but financial knowledge has no effect on financial attitudes. Financial attitudes also do not affect financial behavior. Financial knowledge, financial attitudes, and financial behavior have a significant effect on the financial well-being of SMEs Batik. Future studies should be able to use proxies or other indicators for financial attitudes and do groupings based on the characteristics of batik SMEs such as education, length of business, family background, and training opportunities.

**Keywords:** Financial Literacy, Financial Knowledge, Financial Attitudes, Financial Behavior, Financial Well-being

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Batik has become part of the nation's culture that must be maintained and passed down from generation to generation. Especially in the Province of East Java, the spirit of batik is very high in recent years. It was started when one by one the cities in East Java proclaimed their regions as batik producers with patented motifs as "typical" of their regions (Qonita, 2017).

The East Java Department of Industry and Trade (Disperindag) said that the small and medium batik industry could grow 3-5 per cent per year. Batik SME in East Java numbered 9,824 units in 2018 and absorbed 29,571 thousand workers. All batik entrepreneurs are spread in almost all regencies and cities in East Java. Of the 38 regencies/cities in East Java, five districts have the potential for batik with batik uniqueness is Madura. Tuban, Sidoarjo, Tulungagung, and Banyuwangi (IKM Batik in East Java Grows 5 Percent Per Year, 2019). Banyuwangi Regency recently focused on developing the batik industry. In 2010, the number of SME Batik was

only four, but through several Banyuwangi district government policies, the number of batik SMEs in Banyuwangi reached 59 units in 2019 (JawaPos.Com, 2019). Like Banyuwangi Regency, Tuban Regency also has its batik potential and uniqueness known as Gedog batik. Tuban batik has special characteristics so that it can still compete with other batiks from various regions (Marfis, 2018). Therefore, Tuban batik is one of the East Java Dekranasda has fostered from the availability of raw materials; the development of motifs to the production process (JawaPos.Com, 2017).

Batik SMEs must maintain competitive advantage, knowledge is recognized as an essential component and strategic resources that are more sustainable so that in the modern era, the determinant of the value of an organization is knowledge. The concept of human capital puts human resources at a higher degree level through increased knowledge and skills. Bontis et al., (2013) human capital represents the individual knowledge stock of an organization represented by its employees. The main component of human capital is financial literacy, where financial literacy is an input aimed at increasing the human capital of every individual by having the knowledge and application of personal finance (Remund, 2010).

The Financial Services Authority (OJK, 2017), shows that the level of financial literacy of the Indonesian people is still relatively low, only reaching 21.84% in 2013 and 2016, reaching 29.66%. It is a fact that it is less favorable for economic growth. One of the strategies adopted by the Financial Services Authority (OJK) is by increasing the index of public financial literacy through education.

The concept of financial literacy is a strategic program because the behavior of Indonesian people tends to be consumptive, leading to various irresponsible financial behaviors such as lack of saving, investment, emergency fund planning and budgeting for future funds. Financial behavior in financial decision-making is considered important by OJK because healthy financial behavior starts with financial literacy. Good financial behavior can build awareness of the importance of financial literacy for improving well-being. The financial literacy as-

pect can form a smarter society in understanding the benefits and risks so that they are more careful in choosing their financial decisions.

## LITERATURE REVIEW

### Financial Literacy

Financial literacy is defined as the level of knowledge, skills, beliefs, which influence attitudes and behaviors to improve the quality of decision-making and financial management to prosper. The wider community not only knows and understands financial institutions and financial products and services but also can change or improve people's behavior in financial management so that they can improve their well-being. It is following Lusardi et al., (2010) and Huston (2010), that financial literacy is also a financial knowledge and ability to apply it (manage and communicate) that aims to achieve prosperity. Huston (2010) defines financial literacy as the ability to use knowledge and expertise to manage financial resources to achieve prosperity. Thus, the ultimate goal of financial literacy is to manage financial resources to improve people's well-being.

According to Remund (2010), there are four common components in financial literacy, namely: budgeting, savings, income, and investment. Financial literacy uses perspectives such as developing assets, managing debt, saving, earning income, spending, and so on (Jappelli, 2010). In addition, Nababan & Sadalia (2013) explained that financial literacy includes several aspects, namely basic knowledge of personal finance, savings and investment ownership, management in managing expenses, the ability to use credit and debt, and risk management related to financial actions. Based on this description, it can be concluded that financial literacy includes four variables, namely: Financial Knowledge, Financial Attitudes, Financial Behavior, and Financial Well-being.

**Financial Knowledge.** Atkinson & Messy (2012) describe financial knowledge in the form of individual decision-making abilities that use a combination of skills and resources, contextual knowledge to manage information and make decisions (Arifin, 2017; Keown, 2011; Riitsalu & Murakas,

2019). Chen & Volpe (2002) describe financial knowledge, namely knowledge to manage finances in financial decision-making. Financial knowledge is broken down into four dimensions, namely general knowledge of personal finance, savings, and deposits, insurance, and investment.

**Financial Attitude.** According to Chen & Volpe (2002) that financial attitude refers to how a person behaves on his finances as measured by responses to a statement or opinion (Herdjiono & Damanik, 2016; Paluri & Mehra, 2016; Saurabh & Nandan, 2018). Furthermore, Herdjiono & Damanik (2016), defines financial attitudes as states of mind, opinions, and judgments about finance. Next, Chen & Volpe (2002), measure financial attitudes with four indicators, namely orientation towards personal finance, money philosophy, financial security, and valuing personal finance.

**Financial Behavior.** Marsh (2006) describes financial behavior, which is the study of how humans take action in the process of decision making in financial management as a response and information obtained. Financial behavior is measured by four indicators, organizing, spending, saving, and waste (Dew & Xiao, 2011; Saurabh & Nandan, 2018). There is five-measurement indicator of a person's financial behavior, namely: consumption, cash-flow management, saving, investment, and credit management. The measurement indicators of financial behavior, namely: paying bills on time, make an expenditure and expenditure budget, record expenses and expenditures, saving periodically, comparing prices before deciding to make a purchase, setting financial goals, estimate costs accurately, estimate income appropriately, consider several alternatives when making financial decisions, and adjust to meet the financial emergency.

**Financial Well-being.** According to Law No. 11 of 2009 concerning Social Welfare states that welfare is a condition of meeting the material, spiritual and social needs of citizens to live properly and be able to develop themselves and be able to carry out their social functions. While indicators that are often used to measure the level of welfare include the level of education, per capita income, health and nutrition, social environment, infrastructure and ser-

vices, natural environment, political environment, level of knowledge, economic environment, and asset ownership (Ratnawati et al., 2017). Anshori & Asjhari (2015) in measuring welfare using four namely: employment, income, ownership of assets, and access to social and economic services. Based on limited research, the financial well-being of this study is part of social welfare. Financial well-being is proxied through business development (assets), increasing owner's income, and easy access to social and economic services.

### **Financial Knowledge, Financial Attitudes and Financial Behavior**

Financial knowledge can influence financial attitudes (OJK, 2017). Attitude refers to how a person feels about personal financial problems, as measured by responses to a statement or opinion (Marsh, 2006). Research by Nurdan et al., (2012) stated that the level of financial knowledge has a significant relationship to financial behavior. Someone with good financial knowledge can make good decisions for himself and can position finances so that financial behavior arises (Hilgert et al., 2003). Hilgert et al. (2003) explained that good financial planning; management and control activities show healthy financial behavior. Indicators of good financial behavior can be seen from the way or attitude of a person in financial knowledge, expenses, income, credit management, savings, and investment. Marsh (2006) also states that a person's financial behavior arises from his financial attitude; individuals who are not wise in responding to personal financial problems tend to have poor financial behavior.

Based on research results show that income has a positive and significant effect on financial behavior (Andrew & Linawati, 2014; Hilgert et al., 2003; Mahdzan & Saleh, 2013). Besides, subjective and objective expenditures significantly influence financial behavior (Gutter, 2008). Andrew & Linawati (2014) strengthen that students' ability to manage low debt is due to their low ability to make appropriate financial plans. The low ability to make financial plans is due to low financial literacy so that financial behavior is not good. If individuals can make correct financial decisions, they will not have finan-

cial problems in the future and can show healthy financial behavior and be able to determine priority needs rather than wants (Chinen & Endo, 2012). Financial knowledge and financial attitudes have a significant positive effect on financial behavior (Humaira & Sagoro, 2018; Ida & Dwinta, 2010; Modern & Schors, 2012; Pradiningtyas & Lukiastuti, 2019).

- H1: Financial knowledge has a significant positive effect on financial attitudes
- H2: Financial knowledge has a significant positive effect on financial behavior
- H3: Financial attitude has a significant positive effect on financial behavior

**Financial Knowledge, Financial Attitudes, Financial Behavior, and Financial Well-being**

Jappelli (2010) states that there is a significant relationship between financial literacy and welfare in a certain time cycle. Taft et al., (2013) expressed the same thing that financial literacy is positively related to accumulative welfare based on several components studied such as school, work experience, and family background. Someone who has financial knowledge tends to use his income to save and a little to meet consumer needs so that it can be used in the future when there is a decrease in income (Lusardi et al., 2010). Therefore, it can be said that someone with good financial literacy will

increase financial security and reduce financial problems in the future (Taft et al., 2013). Thus, material welfare in the future can be guaranteed.

According to Riitsalu & Murakas (2019), that good financial knowledge, attitudes and financial behavior can improve people’s welfare. The financial knowledge and financial behavior have a significant effect on financial well-being.

Financial attitudes (Ida & Dwinta, 2010; Keown, 2011) also relate to financial difficulties, meaning that if financial attitudes are not goodwill have an impact on financial problems that ultimately will reduce welfare or even disappear.

- H4: Financial knowledge has a significant positive effect on financial well-being
- H5: Financial attitude has a significant positive effect on financial well-being
- H6: Financial behavior has a significant positive effect on financial well-being

The purpose of the study, namely to test and analyze the effect of financial knowledge on financial attitudes and financial behavior, as well as the influence of financial attitudes on financial behavior. It also tests and analyzes the effect of financial knowledge, financial attitudes, and financial behavior on the financial well-being of batik SMEs in East Java. The following is a picture of a conceptual framework for research.

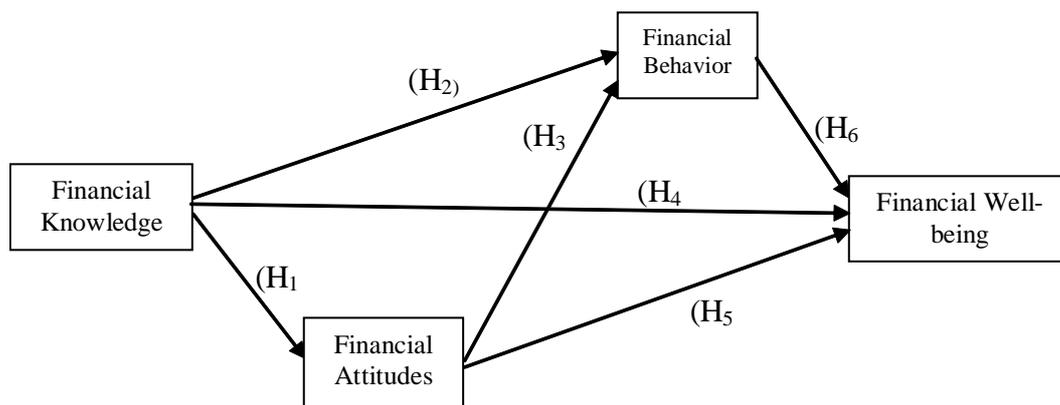


Figure 1 Research Conceptual Framework

## **METHOD**

### **Population and Sample**

The population in the study were all Batik entrepreneurs in East Java. The number of batik SMEs in East Java was 9,824 units. The sampling technique was multistage. The first stage is determining the area of the district chosen with the following criteria: (a) Both districts have an average annual growth of 5%; (b) relatively similar geographical location, which has a long coastline so that the batik pattern has a prominent characteristic and tends to reflect natural wealth (Kompas.Com, 2011). Thus, the selected districts are Banyuwangi and Tuban. The second stage is to determine respondents using a census that is all batik entrepreneurs in the districts of Banyuwangi and Tuban as many as 125 respondents.

### **Data Sources and Research Variables**

The type of data in this study is quantitative data. The data source used is primary data. Data collection using a questionnaire conducted by meeting directly with respondents (SMEs Batik entrepreneurs). Research variables, including the financial well-being of SMEs (kep/Y3), is measuring by three indicators. The indicator of measuring financial well-being namely: business development (assets), increasing owner's income, and easy access to social and economic services (Anshori & Asjhari, 2015; OJK, 2017); financial knowledge (pkeu/X) with indicators of general personal financial knowledge, financial knowledge on savings, financial knowledge on insurance and financial knowledge on investment (Chen & Volpe, 2002; Remund, 2010). Furthermore, financial attitudes (skeu/Y2) with indicators of self-confidence, feeling of security, debt philosophy and valuing personal finances (Dew & Xiao, 2011; Nababan & Sadalia, 2013); financial behavior (prikey/Y2) with indicators: create and record expenditure and expenditure budgets, behavior on consumption, behavior on savings and loans, and insurance behavior (Dew & Xiao, 2011; Marsh, 2006). Furthermore, the measurement scale of the data uses a Likert scale from strongly disagree (point 1) - strongly agree (point 5).

### **Data Analysis**

This type of research used in this research is explanatory research or analytical research. Data analysis in this study used the Partial Least Square (PLS) method. PLS is used to measure the relationship of each indicator with its construct (Solimun, 2011). Besides, PLS can perform bootstrapping tests on structural models that are outer models and inner models. This study uses indicators in the measurement of each construct that is structural, and then the appropriate analytical tool is PLS with the application of SmartPLS 3.3.

## **RESULTS**

### **The Goodness of Fit is Carried Out Using an Outer Model and Inner Model Evaluation as Follows:**

#### **1. Outer Model**

In convergent validity, the level of validity of the indicator can be seen based on the loading factor value. One of the criteria used is the loading factor value of 0.50 to 0.60 to be valid or significant. Based on the result, the loading factor value of all research indicators is more significant than 0.5. Thus, all indicators of research variables are valid. Discriminant validity compares the square root of average variance extracted (AVE) value of each construct with the correlation between other constructs in the model, and the recommended measurement value must be higher than 0.50 (Solimun, 2011). While composite reliability is an index that shows the extent to which a measuring device can be trusted to be relied upon so that a latent variable has excellent composite reliability if it has composite reliability with a cut-off value of 0.7.

Based on the results in Table 1, it is known that the average variance extracted (AVE) score of all variables in this study  $\geq .50$ . Therefore, it can be said that all variables are valid. Besides, all variables in this study had a Composite Reliability score of  $\geq 0.70$ . Therefore, it can be said that the research instrument of all research is reliable and reliable so that it can be used for hypothesis testing. Cronbach Alpha values in all variables  $\geq 0.70$  indi-

**Table 1 Discriminant Validity and Composite Reliability**

Variable	Discriminant Validity		Composite Reliability		
	AVE	Descp.	Cronbach - $\alpha$	CR	Descp.
Financial Knowledge	0,705	Valid	0,791	0,877	Reliable
Financial Behavior	0,645	Valid	0,815	0,877	Reliable
Financial Attitudes	0,662	Valid	0,828	0,886	Reliable
Financial Well-being	0,557	Valid	0,760	0,827	Reliable

cate that the consistency of respondents' answers in one latent variable is good or consistent.

**2. Inner Model**

Testing the inner model or structural model is done to see the relationship between the construct, the significance value, and the R-square of the research model. Evaluation of inner models can be done in three ways. The third way is to look at R-square, Q-square, and Goodness of Fit. The R-square of Financial Well-being is 0,301, Financial Behavior is 0,415, and Financial Attitudes is 0,012. Testing the inner model further by looking at the value of Q-square (predictive relevance), the quantity of Q-square has a value with a range of  $0 < Q^2$

$< 1$ , where the closer to 1 means the model is getting better. Q-Square can be done using the formula:

$$Q^2 = 1 - (1 - R_1^2) (1 - R_2^2) \dots (1 - R_p^2)$$

$$Q^2 = 1 - (1 - 0,301) (1 - 0,415) (1 - 0,012)$$

$$Q^2 = 0,595$$

Predictive relevance value is obtained  $Q^2 = 0.595$  or 59.5%. It indicates that the model can explain the phenomenon of research by 59.5%. Therefore, the model can be said to be good or has good predictive value so that it can be used for hypothesis testing. Structural model equations are formulated to determine the relationship between the latent variables studied.

$$\text{Financial Attitudes} = 0,107_{\text{Financial Knowledge}} + \zeta$$

$$\text{Financial Behavior} = 0,645_{\text{Financial Knowledge}} - 0,135_{\text{Financial Attitudes}} + \zeta$$

$$\text{Financial Well-being} = 0,318_{\text{Financial Knowledge}} - 0,565_{\text{Financial Behavior}} + 0,264_{\text{Financial Attitudes}} + \zeta$$

The construction of the path diagram is to combine the inner model and the outer model using SmartPLS Software, as shown in Figure 2 below.

Hypothesis testing is done by the bootstrapping resampling method. The results of testing the hy-

pothesis of direct and indirect effects are presented in the following Table 2.

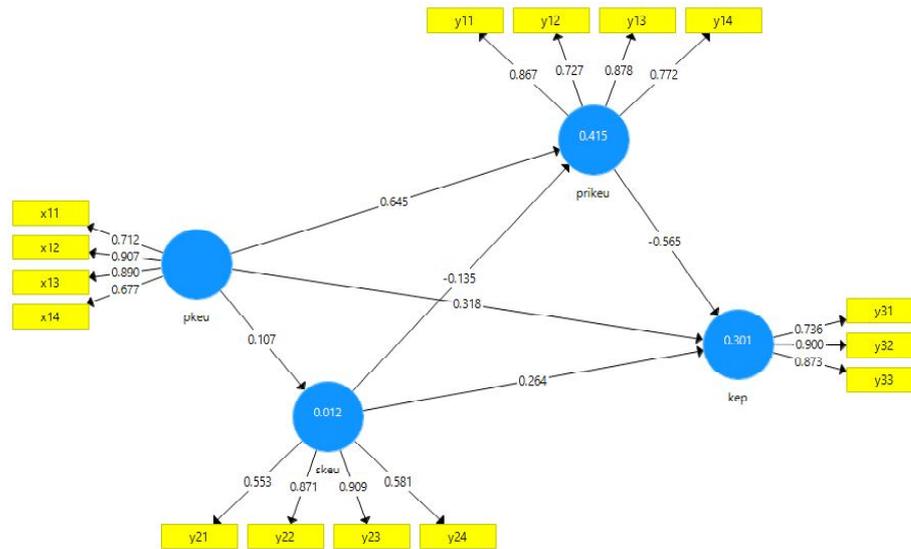


Figure 2 Pathway Construction

Table 2 Path Coefficients and Hypothesis Testing Results

Variable*	Path Coefficients	t-statistic	p-value	Description
pkeu → skeu	0,107	0,840	0,401	Not Significant
pkeu → prikeu	0,645	14,501	0,000	Significant
skeu → prikeu	-0,135	1,157	0,248	Not Significant
pkeu → kep	0,318	3,174	0,002	Significant
skeu → kep	0,264	2,127	0,034	Significant
prikeu → kep	-0,565	5,053	0,000	Significant

\*) Note: pkeu: Financial Knowledge; skeu: Financial Attitudes; prikeu: Financial Behavior; kep: Financial Well-being

Financial Knowledge has no significant effect on Financial Attitude with a path coefficient of 0.107 and a p-value of 0.401  $\alpha = 0.05$ , so H1 is rejected. However, H2 in this study is proven by assessing the coefficient of financial knowledge pathway towards financial behavior, having a significant positive effect. It can be seen in the magnitude of the coefficient value of 0.645 and p-value of 0.000  $\leq \alpha = 0.05$ . Financial attitude has no significant effect on financial behavior, this is evidenced by the path coefficient of -0.135 and p-value of 0, 0.248  $\geq \alpha = 0.05$  (H3 is rejected). Financial Knowledge has a significant positive effect on the Financial Well-being of SMEs so that H4 is accepted. It is evidenced by the path coefficient of 0.318 and p-value of 0.002

$\leq \alpha = 0.05$ . Financial attitude also has a significant positive effect on the Financial Well-being of SMEs. The coefficient value is 0.264 with a p-value of 0.034 smaller than  $\alpha = 0.05$ , so H5 is accepted. Furthermore, Financial Behavior has a significant negative effect on the Financial Well-being of SMEs practitioners with a coefficient value of -0.565 and p-value of 0,000  $\leq \alpha = 0.05$ , so H6 is accepted.

**DISCUSSION**

The results of the study confirmed that the level of financial knowledge had no impact on changes in the financial attitudes of batik SMEs. This incident indicated that although they had a general knowledge of personal finance, knowledge of the ben-

efits of savings, insurance, and investment property was not able to build a good financial attitude of batik SMEs. The results of the descriptive statistical analysis show financial attitudes as measured by self-confidence, security, debt philosophy, and valuing personal finance are relatively low. This low level proves that financial knowledge is not the only variable forming financial attitudes. This phenomenon confirms that they have not behaved properly in financial management because they have not seen evidence or examples of how to use financial instruments. According to Garman et al. (2006) that to gain perceptions and trust in financial knowledge, it is necessary to develop financial skills and learn to use financial tools. In addition, real access to adequate financial and credit services is also needed, which is called financial inclusion. Bhowmik & Saha (2013) elaborated on the concept of financial inclusion, namely: (a) people from all classes of society must have access to formal financial services; (b) there must not be obstacles to accessing credit; (c) the timeliness and the adequate amount of credit must be provided; (d) weak and low-income people need to be targeted; and (e) financial services must be cheap and affordable. Thus it seems that financial inclusion is quite important as forming financial attitudes other than financial knowledge itself.

Financial knowledge has a positive and significant influence on the financial behavior of batik SMEs. Based on the description of the responses of batik SMEs respondents have a fairly high level of financial knowledge. One of the factors that can increase financial knowledge is formal education or training on financial literacy, both from the local department and from several universities through service programs. SMEs who have high financial knowledge will be more vigilant about their future. So that it will behave well in financial management. Carlin & Robinson (2012) revealed that someone who was briefly trained to manage finances can make better decisions in future financial matters. Thus will have good knowledge, whether financial knowledge is obtained through training or with formal education, then they will understand the basic principles of using money. Van Rooij et al. (2012) in a study of the use of pension funds in the US em-

phasizes that people who understand the basic principles of using money have a better retirement plan, greater wealth and can avoid debt. The results of this study are supported by research conducted by Ida & Dwinta (2010), and Pradiningtyas & Lukiastuti (2019).

Financial attitude does not significantly influence the financial behavior of batik SMEs. This shows that whether or not the financial attitude is proxied by self-confidence, a sense of security, the philosophy of debt, and how to assess personal finance does not have an impact on financial behavior. The state of mind, perceptions, opinions, and assessments of personal finances are not able to determine what kind of behavior they will do. This condition occurs because they need a figure (role model) or example so that what they do will not be wrong or suffer a loss in the future. The point is they are very afraid if there is a risk, this is because SMEs have very limited sources of income and capital and different characteristics. Thus demographic factors have a dominant role in influencing financial management behavior. Andrew & Linawati (2014) who mentioned a significant relationship between financial management behavior with demographic factors such as gender, education level, and income level. Furthermore, Taylor (2011) also explains that financial management ability can be determined by several key factors such as age, health, household size, length of time of marriage, and type of work owned by family members. This means that not taking these factors into account will cause the financial attitude to not affect their financial behavior. The results of this study are not in line with research conducted by Humaira & Sagoro (2018) and Pradiningtyas & Lukiastuti (2019).

Financial knowledge has a significant positive effect on the financial well-being of batik SMEs. This condition shows that good financial knowledge will have an impact on good personal financial management and in the end, their financial value will increase in the future so that the financial well-being of batik SMEs will increase. According to Van Rooij et al. (2012) that someone with financial management knowledge will certainly have a better future. The results of Brown & Graf (2013) confirm

the same thing that financial literacy is strongly correlated to well-being in the case of the use of pension funds. The results of this study are also in line with Behrman et al. (2012), Van Rooij et al. (2012), (OJK (2017), and Riitsalu & Murakas, (2019).

Financial attitude has a significant positive effect on financial well-being. This shows people who have confidence, feeling safe, understand the philosophy of debt and understand the value of money in the future, so they will make good planning for their finances and use of finance based on the planned goals so that they obtain financial prosperity in the future. Of course, all batik SMEs practitioners want and believe that with a good financial attitude will have an impact on well-being through quality financial decisions. The results of this study are in accordance with Brown & Graf (2013), Lusardi et al. (2010), Sina, (2014), and OJK (2017).

Financial behavior has a significant negative effect on financial well-being. It means that although financial behavior is not very good, the expectation of batik SMEs for financial well-being will continue to increase. This condition indicates that how to save regularly, join insurance programs, pay loans on time, and others for SMEs batik is not the only measure to improve financial well-being, but more important is the expectation of well-being itself. According to Baranowsky et al. (1997), that a person will develop his expectations about a situation and his expectations to get an outcome from his behavior before they experience the situation. Next, someone ties the value of that expectation in the form of outcome expectancies. Outcome expectations indicate that when we see a model being rewarded and punished, we will expect to get the same results if we do the same behavior as the model. By looking at the highly competitive batik SMEs, of course, they feel quite prosperous if their businesses could survive and can be passed on to their children because the average batik SMEs actors are managed from generation to generation. The results of this study are relevant to the research of Riitsalu & Murakas (2019).

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusion**

Based on the results of hypothesis testing, it shows that: (1) financial knowledge does not significantly influence the financial attitude of batik SMEs; (2) financial knowledge has a significant positive effect on the financial behavior of batik SMEs; (3) financial attitude does not significantly influence the financial behavior of batik SMEs; (4) financial knowledge has a significant positive effect on the financial well-being of batik SMEs; (5) financial attitude has a significant positive effect on the financial well-being of batik SMEs; (6) financial behavior has a significant negative effect on the financial well-being of batik SMEs in East Java.

### **Recommendation**

This study has limitations, among others, researchers did not classify the age of respondents, the motivation of batik business, length of business, sex of SMEs batik, marital status, and several dependents. Batik SMEs should better understand and educate every component of indicators on financial knowledge, financial attitudes, and financial behavior to improve financial well-being. The Batik SMEs Association must also function as a mediator with the government and look for strategic breakthroughs with increasingly intense competition in batik businesses.

## **REFERENCES**

- Andrew, V. and Linawati, N. 2014. *Hubungan Faktor Demografi dan Pengetahuan Keuangan Dengan Perilaku Keuangan Karyawan di Surabaya*. *Finesta*, 2 (2), 67–79.
- Anshori, A. N. and Asjhari, A. 2015. *Hubungan Literasi Keuangan Dengan Perubahan Kesejahteraan Masyarakat Pasca Pemberian Ganti Kerugian Tanah Untuk Pembangunan Jalan Tol Di Desa Bongaswetan, Kabupaten Majalengka*. *Jurnal Sosek Pekerjaan Umum*, 7 (1), 39–51.
- Arifin, A. Z. 2017. *The influence of financial knowledge, control, and income on individual financial be-*

- havior. *European Research Studies Journal*, 20 (3), 635–648.
- Atkinson, A. and Messy, F. 2012. *Measuring Financial Literacy: Result of the OECD/International Network of Financial Education (INFE) Pilot Study (No. 15)*.
- Baranowsky, T., Perry, C. L., and Parcel, G. 1997. *How Individuals, environments, and health behavior interact: Social Cognitive Theory*. In *Health Behavior and Health Education: Theory, Research, and Practice* (2nd ed.. Jossey-Bass).
- Behrman, J. R., Olivia, S. M., Cindy, K. S., and Bravo, D. 2012. *How Financial Literacy Affects Household Wealth Accumulation*. *The American Economic Review*, 102(3), 300–304. <https://doi.org/DOI:10.1257/aer.102.3.300>.
- Bhowmik, S. K. and Saha, D. 2013. *Financial Inclusion of the Marginalised: Street Vendors in the Urban Economy*. <https://doi.org/DOI:10.1007/978-81-322-1506-6>.
- Brown, M. and Graf, R. 2013. *Financial Literacy and Retirement Planning in Switzerland*. *Numeracy*, 6 (2). <https://doi.org/DOI:http://dx.doi.org/10.5038/1936-4660.6.2.6>.
- Carlin, B. and Robinson, D. T. 2012. *Financial Education and Timely Decision Support: Lessons from Junior Achievement*. *The American Economic Review*, 305–308. url: <http://www.jstor.org/stable/23245547>.
- Chen, H. and Volpe, R. 2002. *Gender Differences in Personal Financial Literation among College Students*. *Financial Services Review*, 11, 289–307.
- Chinen, K. and Endo, H. 2012. *Effect of Attitude and Background on Personal Finance Ability: A Student Survey in the United State*. *International Journal of Management*, 29 (1), 33–45.
- Dew, J. and Xiao, J. 2011. *The Financial Management Behavior Scale: Development and Validation*. *Journal of Financial Counseling and Planning*, 22, 43–59.
- Gutter, M. 2008. *Financial Management Practices of Collage Student from States With Varying Financial Education Mandates*.
- Herdjiono, I. and Damanik, L. A. 2016. *Pengaruh Financial Attitude, Financial Knowledge, Parental Income terhadap Financial Management Behavior*. *Jurnal Manajemen Teori Dan Terapan*, 9 (3), 58–69.
- Hilgert, M. A., Hogarth, J., and Baverly, S. 2003. *Household Financial Management/ : The Connection between Knowledge and Behavior*. *Federal Reserve Bulletin*, 309–322.
- Humaira, I. and Sagoro, E. 2018. *Pengaruh Pengetahuan Keuangan, Sikap Keuangan dan Kepribadian terhadap Perilaku Manajemen Keuangan Pada Pelaku UKM Sentra Kerajinan Batik Kabupaten Bantul*. *Jurnal Nominal*, 7 (1), 1–15.
- Huston, S. 2010. *Measuring Financial Literacy*. *Journal of Consumer Affairs*, 4 (2), 296–316.
- Ida and Dwinta, C. 2010. *Pengaruh locus of control, financial knowledge, dan income terhadap financial management behavior*. *Jurnal Bisnis Dan Akuntansi*, 12 (3), 131–144.
- Jappelli, T. 2010. *Economic Literacy: An International Comparison (No. 16)*.
- JawaPos.Com. 2017. *Bina UKM Batik Tuban Mulai Produksi Sampai Pemasaran*. JawaPos.Com. <https://www.pressreader.com/indonesia/jawa-pos/20170305/281758449078282>.
- JawaPos.Com. 2019, October 8. *Banyuwangi Industri Batik Kian Menggeliat, Motif Berlimpah, Pasar Bergairah*. JawaPos.Com. <https://radarjember.jawapos.com/bisnis/08/10/2019/banyuwangi-industri-batik-kian-menggeliat-motif-berlimpah-pasar-bergairah/>.
- Keown, L. A. 2011. *The Financial Knowledge of Canadian*. *Canadian Social Trand*, 11 (8), 30–39.
- L Remund, D. 2010. *Financial Literation Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy*. *Journal of Consumer Affairs*, 4, 276–295.
- Lusardi, A., Mitchel, O., and Curto, V. 2010. *Financial Literacy Among the Young: Evidence and Implication for Consumer Policy*.
- Mahdzan, N. and Saleh, T. 2013. *The Impact of Financial Literacy on Individual Saving/ : An Exploratory Study In The Malaysian Context*. *Transformation In Business and Economics*, 12 (1), 28–43.
- Marfis, N. 2018. *60%UMKM di Tuban Didominasi Usaha Mamin*. [On Line]. From: <https://kumparan.com/bloktuban/60-umkm-di-tuban-didominasi-usaha-mamin-1539227059561098331>. [October 11, 2018].
- Marsh, B. A. 2006. *Examining the personal financial attitudes, behavior, and knowledge levels of first-year and senior students at Baptist Universities in the State of Texas*.
- Modern, T. and Schors, A. V. 2012. *Financial Attitudes and Skills as Early-Warning Signs of Financial Problems*.
- Nababan, D. and Sadalia, I. 2013. *Analisis Personal Financial Literacy dan Financial Behavior Mahasiswa strata I Fakultas Ekonomi Universitas*

- Sumatera Utara. *Media Informasi Manajemen*, 1 (1), 1–16.
- Nurdan, S., Temizel, F., and Sayýlýr, O. 2012. *The effects of financial literacy on the borrowing behavior of Turkish financial consumers*. *International Journal of Consumer Studies*, 36 (5), 214–230.
- OJK. 2017. *Strategi Nasional Literasi Keuangan Indonesia (Revisit 2017)*. Otoritas Jasa Keuangan. www.ojk.go.id.
- Paluri, R. A. and Mehra, S. 2016. *Financial attitude based segmentation of women in India: an exploratory study*. *International Journal of Bank Marketing*, 34 (5), 670–689. <https://doi.org/10.1108/IJBM-05-2015-0073>.
- Pradiningtyas, T. and Lukiastuti, F. 2019. *Pengaruh Pengetahuan Keuangan dan Sikap Keuangan terhadap Locus of Control dan Perilaku Pengelolaan Keuangan Mahasiswa Ekonomi*. *Jurnal Minds/: Manajemen Ide Dan Inspirasi*, 6 (1), 95–109.
- Qonita, A. 2017. *Batik Sebagai Salah Satu Solusi Masalah Kependudukan di Sidoarjo*. <https://medium.com/@qonitaafnani/batik-sebagai-salah-satu-solusi-masalah-kependudukan-di-sidoarjo-a5f689878d95>.
- Ratnawati, T., Rohmasari, F., and Lokajaya, N. 2017. *Strategi Financial Literacy and Financial Inclusion Sebagai Trigger Kesejahteraan Masyarakat Industri Kecil Kawasan Wisata Giri Kabupaten Gresik Jawa Timur*. *Jurnal Penelitian LPPM Untag Surabaya*, 2 (1), 57–64. [jurnal.untag-sby.ac.id/index.php/jhp17](http://jurnal.untag-sby.ac.id/index.php/jhp17).
- Remund, D. L. 2010. *Financial Literacy Explicated: he Case for a Clearer Definition in an Increasingly Complex Economy*. *Journal of Consumer Affairs*, 44 (2), 276–292.
- Riitsalu, L. and Murakas, R. 2019. *Subjective financial knowledge, prudent behavior, and income: The predictors of financial well-being in Estonia*. *International Journal of Bank Marketing*, 37 (4), 934–950. <https://doi.org/10.1108/IJBM-03-2018-0071>.
- Saurabh, K. and Nandan, T. 2018. *Role of financial risk attitude and financial behavior as mediators in financial satisfaction: Empirical evidence from India*. *South Asian Journal of Business Studies*, 7 (2), 207–224. <https://doi.org/10.1108/SAJBS-07-2017-0088>.
- Sina, P. 2014. *Tipe Kepribadian Dalam Personal Finance*. *Jurnal JIBEKA*, 8 (1), 54–59.
- Solimun. 2011. *Analisis Multivariat Permodelan Struktural Metode Partial Least Square-PLS*. CV. Citra Malang.
- Taft, M. K., Hosein, Z. Z., Mehrizi, S. M. T., and Roshan, A. 2013. *The Relation between Financial Literacy, Financial Wellbeing, and Financial Concerns*. *International Journal of Business and Management*, 8 (11), 63–75. <https://doi.org/doi:10.5539/ijbm.v8n11p63>.
- Taylor, M. 2011. *Measuring Financial Capability and its Determinants Using Survey Data*. *Social Indicators Research*, 102 (2), 297–314. <https://doi.org/DOI:10.1007/s11205-010-9681-9>
- Van Rooij, M. C., Lusardi, A., and Alessie, R. J. M. 2012. *Financial Literacy, Retirement Planning, and Household Wealth*. *The Economic Journal*, 122 (560), 449–478. <https://doi.org/https://doi.org/10.1111/j.1468-0297.2012.02501.x>.
- Xiao, J. J., Sorhaindo, B., and Garman, E. T. 2006. *Financial behavior of consumer in credit counseling*. *International Journal of Consumer Studies*, 3 (2), 108–121.