

THE ROLE OF MANAGER BEHAVIOR IN EXPLAINING THE FINANCIAL PLANNING AND FINANCIAL INNOVATION OF SMALL AND MEDIUM ENTERPRISES

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Abstract: The major weakness of SMEs is in financial management and marketing. These problems obstruct their growth and ability to plan and innovate their business. This study examines the influence of personality, financial culture, and competence on SMEs' innovation and financial planning. The sample was determined by proportional random sampling repose industry type, and 285 complete data were analyzed. Data were collected through a structured offline questionnaire. A quantitative analysis approach was followed using a structural equation model. The results show that financial planning is an effective mediator of personality, financial culture, and competencies toward financial innovation. Personality and financial culture do not directly affect financial innovation but indirectly affect financial planning. However, competence directly affects financial innovation and indirectly passes through financial planning. This paper argues that SMEs have the potential to overcome economic crises by focusing on how they manage finance innovation and considering determining factors of financial planning and innovation. Finally, this study contributes to the literature on SME financial behavior and factors such as personality, financial culture, and competencies that leads to the recommendation of SME owners/managers to innovate in accessing finance.

Keywords: competencies, financial culture, financial innovation, financial planning, personality

Abstrak: Kelemahan utama UKM adalah pengelolaan keuangan dan pemasaran. Masalah-masalah ini menghambat pertumbuhan dan kemampuan mereka untuk merencanakan dan berinovasi. Penelitian ini menguji pengaruh kepribadian, budaya keuangan, dan kompetensi terhadap inovasi dan perencanaan keuangan UKM. Sampel ditentukan dengan proportional random sampling berdasarkan jenis industrinya dan 285 data lengkap dianalisis. Data dikumpulkan melalui kuesioner terstruktur secara luring. Pendekatan analisis kuantitatif diikuti dengan menggunakan model persamaan struktural. Hasil penelitian menunjukkan bahwa perencanaan keuangan merupakan mediator yang efektif dari kepribadian, budaya keuangan, dan kompetensi menuju inovasi keuangan. Kepribadian dan budaya keuangan tidak secara langsung mempengaruhi inovasi keuangan, tetapi secara tidak langsung mempengaruhi perencanaan keuangan. Namun, kompetensi secara langsung mempengaruhi inovasi keuangan dan secara tidak langsung memberikan pengaruh melalui perencanaan keuangan. Makalah ini berpendapat bahwa UKM memiliki potensi untuk mengatasi krisis ekonomi dengan berfokus pada bagaimana mereka mengelola keuangan dengan mempertimbangkan faktor penentu perencanaan dan inovasi keuangan. Studi ini memberikan kontribusi literatur tentang perilaku keuangan UKM dan faktor-faktor seperti kepribadian, budaya keuangan, dan kompetensi yang mengarah pada rekomendasi pemilik/pengelola UKM untuk berinovasi dalam mengakses keuangan.

Kata kunci: kompetensi, budaya keuangan, inovasi keuangan, perencanaan keuangan, kepribadian

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INTRODUCTION

Small and medium enterprises (SMEs) are essential to the nation's economic pillars. Economic evolution demands SMEs' readiness to compete and ensure the survival of their business. Facing global changes, which always come with uncertainty, investment in human resources is one of the best solutions to increase productivity hand in hand with technological advancement. However, a significant weakness of SMEs is in financial management and marketing (Hadiyati, 2015; Ihua, 2017). These problems obstruct their growth and ability to plan and innovate their business. Our paper argues that SMEs have the potential to overcome economic crises by focusing on how they manage financial innovation and considering process-determining factors of financial planning and innovation.

Funding is still a problem for SMEs to grow, as they require sufficient finances to plan and innovate (Brown & Lee, 2019; Cao & Leung, 2016; Eniola & Entebang, 2015). SMEs' financing adsorption in Indonesia as a part of financial institutions is only 15.58% or 72,949 billion rupiahs. This figure suggests that they are under-financed compared to other economic sectors. SMEs still struggle to access financial institutions due to administration problems and poor financial management (Adomako et al. 2015; Ihua, 2017). The ability to manage finances can be reflected in individual financial literacy levels (managers or enterprise owners). The results of Ismanto et al. (2019) surveying SMEs, including credit customers in Indonesia, found that 79.2% of SMEs considered wrong credit customers were sufficiently literate. It shows that while SMEs have knowledge and confidence in financial products, they are not skilled in using them. García-Quevedo et al. (2018) found that financial constraints mean that fewer firms can take part in innovative activities. Through financial planning, a firm can determine whether it is experiencing financial constraints. This information helps the firm to explore its current finances and search for other financial sources. This financial exploration is a part of financial innovation (Eniola and Entebang, 2015).

Scientific attention to the sustainability of SMEs has increased rapidly. SMEs face many obstacles to accessing credit markets (Bakhtiari et al. 2020; Wellalage & Locke, 2017; Yoshino & Taghizadeh-

Hesary, 2018). As a result, a financial gap is exacerbated when SMEs have to ask for credit from banks, as banks usually follow a strict lending policy (Archer et al. 2020; Lu et al. 2022). The results of research conducted by Fatoki and Odeyemi (2010) on SMEs in South Africa found that managerial competence is a significant determinant of credit approval. Man et al. (2002) conceptualizes entrepreneurial competencies for SME competitiveness, which include opportunity, organizing, relationship, commitment, and conceptual competencies. Opportunity, relationship, innovation, human, and strategic competencies affect SMEs' long-term performance (Man et al. 2008). Others have clearly stated that entrepreneurial competence positively impacts SME performance (Ng et al. 2019; Pulka et al. 2021; Tehseen et al. 2019).

Recent SME credit behavior is often discussed to measure SME credit risk (Wang, 2012; Mutegi et al. 2015; Siddiqui, 2017). McHugh and Ranyardn (2012, 2016) state that loan repayment decisions significantly affect loan repayment rates. Low payment rates reduce banks' trust when providing loans to these SMEs. SME owners and managers need to address these limitations to be more innovative in accessing finance, such as through crowdfunding. In fact, innovative behavior plays a major role in the performance of SMEs (Amir et al. 2018). Meanwhile, the skills of SME owners in managing finances and awareness of their financial responsibilities are forms of financial culture (Csiszárík-kocsir et al. 2016). Financial culture is oriented to maintaining financial health, including financial planning, estimating income and expenditures, and the behavior of loan repayment decisions. These financial cultural values reflect financial behavior (Breuer and Quinten, 2009).

Asebedo et al. (2019) investigate individual psychological characteristics to response financial. They found that conscientious adults spend less of their income and save more. Savings are the top way to avoid debt (Alexandra et al. 2017). A similar result was also shown by Davis and Runyan (2016); personality traits affect financial behavior and satisfaction. Asebedo (2018) found that the primary personality models determine financial planning practices. Conscientiousness and extroversion generally show intelligent behavior for goal achievement and asset accumulation.

This study investigates the influence of personality, financial culture, and competence on SMEs' financial innovation and the mediating role of financial planning. Personality, financial culture, and competence are the passage of SME owners/managers' behavior in managing business resources and their employees. This paper is a survey of 285 SMEs in Indonesia related to personality, financial culture, competencies, financial planning, and financial innovation instruments. Primary data were analyzed using by SEM approach. This analysis is appropriate for estimating the latent variables in the model. This study also examines explanatory variables' direct and indirect effects on financial innovation and estimates the mediation variable. The estimation shows that financial planning is an effective mediator of personality, financial culture, and competencies toward financial innovation. Personality and financial culture do not directly affect financial innovation but indirectly affect financial planning. However, competence directly affects financial innovation and indirectly passes through financial planning. This study proposes that SMEs have the potential to overcome economic crises by focusing on how they manage finance innovation and considering determining factors of financial planning and innovation. Therefore, this study contributes to the behavioral finance literature, especially the SME perspective, as follows. First, it enriches the empirical literature on how the owner's behavior and competencies affect business activities, such as their activities in financial planning and innovation. Second, this study leans towards the theory of knowledge spillover in entrepreneurship, where knowledge is a circulation and continuation flow of entrepreneurial action (Jones & Ratten, 2021). Although the business does not always require new knowledge, some knowledge is crucial to facilitate business opportunities. In addition, some knowledge forms are also needed to encourage competitiveness. Finally, this study recommends that SMEs innovate in accessing finance by broadening their horizons for business sustainability. For example, crowdfunding on peer-to-peer (P2P) lending platforms or others.

METHODS

This research used an exploratory study. The independent variables are personality, financial culture, and competencies, while the dependent variables consist of financial planning and innovation.

This study examined financial behavior aspects such as personality, culture, and competencies on financial innovation through financial planning as a mediator. A quantitative data analysis approach was followed using a structural equation model. The research was conducted from December 2019 until February 2020 in SME Central Java, Indonesia, ever proposal preparation to data presentation.

This study is based on a sample of SMEs in Central Java, Indonesia. The SMEs were selected based on the management and type of business operation. The determination of sample size was based on Slovin's formulation, allowing a 5% margin of error that resulted in 386 prospective respondents. Due to the problem of time access from SME owners, this research collected 317 responses and 285 with complete data that can be analyzed. The proportional random sampling method was used.

This study uses a questionnaire as the research instrument. In this research, financial innovation means the ability of SME owners to improve financing provisions in new ways. The dependent variable is financial innovation (FI), whereas the predictor variable consists of personality (PS), financial culture (FC), and competencies (CP), with financial planning (FP) as a mediator variable. The research instrument test consists of validity and reliability tests. The validity test aims to see whether latent construct items are valid. Based on the estimated result, several items have significance below 0.50, so they have to be eliminated and re-estimated. After re-estimation, it is known that the loading factor of each question on the questionnaire has a significance above 0.50. The construct reliability and variance extracted value indicate that all variables are reliable. The whole variable has a construct reliability value above 0.70 and a variance extracted above 0.50 (Table 1). Hence, the question items can represent this research model, and the measurement instruments can be used.

Table 2 shows the output of the construct discriminant validity in this research. A high discriminant validity value shows that the construct can capture the measured phenomena. Discriminant validity analysis points out that the variables in this research have a higher \sqrt{AVE} value than another inter-construct correlation. With that in mind, the discriminant validity condition is fulfilled.

Table 1. Research instrument test results

Variables	Loading Factor (λ)	Reliability Construct*	Variance Extracted*
Personality (PS)			
P2	0.748	0.704	0.539
P5	0.720		
Financial Culture (FC)			
FC4	0.859	0.821	0.696
FC5	0.809		
Competencies (CP)			
C1	0.834	0.882	0.714
C4	0.852		
C6	0.848		
Financial Planning (FP)			
FP2	0.804	0.764	0.618
FP5	0.768		
Financial Innovation (FI)			
FI1	0.767	0.792	0.656
FI2	0.851		

*Obtained from manual calculations results using a formula calculated by Fornell and Larcker (1981)

Table 2. Discriminant validity results

Variables	CP	FC	PS	FP	FI
CP	0.872				
FC	0.579	0.835			
PS	0.300	0.407	0.579		
FP	0.501	0.590	0.404	0.940	
FI	0.542	0.546	0.306	0.570	0.728

Moreover, the confirmatory factor analysis and construct validity were conducted to test whether unidimensional latent constructs or construct measurement indicators are valid. Confirmatory factor analysis used in SEM is the fitness index, consisting of chi-square, GFI, AGFI, CFI, IFI, TLI, and RMSEA. Construct validity relies on the sample's indicator size portraying an actual population score. The construct validity measures are convergent validity, variance extracted, construct reliability, and discriminant validity. Convergent validity is known from the loading factor standardized estimate, which has to be equal to 0.50 and 0.70 as the ideal. However, discriminant validity was analyzed by comparing the square root value of AVE (\sqrt{AVE}) with the inter-construct correlation value.

Data were analyzed with Amos 21.0 to analyze the structural equation modeling (SEM), which includes convergent and discriminant validity, reliability test, fitness index, and hypothesis testing. The estimation

used generalized least squares (GLS) with 285 total responses after removing outlier results. Thus, the regression equation model of this research is arranged as follows:

$$FP = \gamma_{1,1}PS + \gamma_{1,2}FC + \gamma_{1,3}CP + \zeta_1 \quad (3)$$

$$FI = \gamma_{2,1}PS + \gamma_{2,2}FC + \gamma_{2,3}CP + \beta_{2,1}FP + \zeta_2 \quad (4)$$

The endogenous variables are financial planning (FP) and financial innovation (FI). In equation (3), $\gamma_{1,1}$ represents the coefficient of the personality variable (PS), $\gamma_{1,2}$ represents the coefficient of the financial constraints variable, and $\gamma_{1,3}$ represents the coefficient of the competencies variable. In equation (4), $\gamma_{2,1}$ represents the coefficient of the personality variable (PS), $\gamma_{2,2}$ represents the coefficient of the financial constraints variable, and $\gamma_{2,3}$ represents the coefficient of the competencies variable. The $\beta_{2,1}$ is a regression coefficient of FP, and ζ_1 and ζ_2 are measurement errors related to the measurement of exogenous variables.

The relationship between personality and financial behavior has been theorized and shown empirically. Fung and Durand (2014) relate personality factors with investor behavior in creating optimal portfolios in the capital market. In their enterprise, SME owners with different characteristics show varied responses when faced with a problem (Rasheed & Siddiqui, 2019). The personality traits that affect the financial behavior of small and medium entrepreneurs are known as the “Big Five personality traits,” namely openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism (Asebedo, 2018). Asebedo (2018) demonstrates that personality is closely related to financial behavior in financial planning. Financial planning intensity reflects the financial behavior of the enterprise owner or manager in managing and monitoring the enterprise’s cash flow. Planning and financial innovation run well if an individual has the necessary expertise and can manage positive and negative emotions (Asebedo, 2018). Personality is a proxy for the ability to manage the emotions in question. A similar statement was also made by Buehler and Griffin (2003) that the quantity and quality of planning depend on the planner’s personality. The strategy-making process in small enterprises is driven by personality, and entrepreneurs who experience crises will pay more attention to financial planning and strategy-making processes (Rasheed & Siddiqui, 2019).

H1: Financial planning influences SME financial innovation.

H2: Personality has an influence on SME financial planning.

H3: Personality has an influence on SME financial innovation.

Enterprise activities create an atmosphere where business habits form, creating the business culture (Cannizzaro and Anderson, 2016). In the financial sector, financial culture is oriented toward maintaining financial health, decreasing financial transaction inefficiency, and improving enterprise productivity (Rumyantseva, 2013). The financial culture helps to develop skills in managing money, including knowledge, rationality, and financial consciousness (Csiszárík-kocsir, Varga, and Fodor, 2016). Zsótér (2018) states that financial culture is a key to financial welfare and behavior. Lee & Trimi (2018) concluded that the most innovative enterprises in the future would be those that have created a suitable culture and climate, as they need a suitable culture to plan and maintain innovation and creativity.

H4: Financial culture has an influence on SME financial planning.

H5: Financial culture has an influence on SME financial innovation.

Each enterprise has a different way of drawing on the potential of its resources to survive. Enterprise resources have to be valuable, scarce, and difficult to replicate to provide a competitive advantage. However, competencies are required to add value to the potential of the resources. Vila, Pérez, and Coll-Serrano (2014) mention that innovators in the workplace most need competencies. Competencies are a strategic asset for companies in understanding customer needs and supplier capabilities. Racela (2014) and as such, building innovation competencies requires a strong set of organizational knowledge, abilities, and motivations to ensure that innovation activities are geared towards serving market needs and organizational goals. This paper presents an interdisciplinary view integrating literature from the disciplines of marketing, innovation, and organization studies and discusses the valuable role that a customer orientation may play in the development of innovation competencies and subsequent organizational outcomes. A customer orientation has often been criticized as constraining certain innovation processes. Nevertheless, since innovation is regarded as a knowledge-based capability, this paper posits that the execution of market-sensing, customer-relating, and customer-response capabilities lead to, rather than inhibit, innovation competencies. In describing innovation, the view taken here is on two distinct but interrelated concepts, namely creativity (i.e. idea generation and problem solving argues that competencies help to ensure that innovation activities serve market needs and corporate goals. Financial planning has to be integrated into action by building an innovative network to provide a competitive advantage. This innovative network can be built through the competencies model created by Sebestova and Rylkova (2011), namely care, competitiveness, communication, relationship, and culture. The development of management competencies assists a fast-changing enterprise (Sebestova and Rylkova, 2011) so that the owner or manager is more responsive to competitors’ actions and technological changes and can make fresh financial breakthroughs.

H6: Competencies have an influence on SME financial planning.

H7: Competencies have an influence on SME financial innovation.

RESULTS

Descriptive data

The characteristics of the 285 research respondents and the enterprise profiles they run. This sample was dominated by men (77.5%), and the rest were women (22.5%). These numbers indicate that most SME owners in Indonesia are male. Most respondents were 40–49 (30.9%) or 50–59 (34.4%). Those aged 20–29 and 30–39 were 12.3% and 14.0% of the sample, respectively. The rest were 60 or over. According to education degree, the respondents of this research primarily come from lower educational backgrounds, with only 8.1% coming from higher education. Those who graduated from primary, junior, and senior high school constituted 34.0%, 26.3%, and 31.6%, respectively.

Fit Model Evaluation

In SEM analysis, model fit is required to determine how well the model-implied covariance matrix is attributed to sampling error (Hair et al. 2017). The model is suitable if the difference between the model-implied covariance matrix and the empirical correlation matrix is slight. The data processing result shows that the Chi-square is 77.127, lower than the chi-square table (324.305), meaning that it fits the model. Meanwhile, the rest of the fit criteria are in

acceptable fit including GFI (0.949), AGFI (0.915), CFI (0.970), IFI (0.970), and TLI (0.959), which are more than 0.9, the last for RMSEA (0.064) between values of 0.05–0.08 (Fabrigar et al. 1999; Kim et al. 2016), as shown in Figure 2.

SEM Evaluation

The test results in Table 3 can be formulated into the structural equation of the research as follows:

$$FP = 0.432 PS + 0.302 FC + 0.24 CP \quad (5)$$

$$FI = 0.185 PS + 0.000 FC + 0.289 CP + 0.298 FP \quad (6)$$

The hypothesis test is done through the result of the statistical analysis from the SEM processing, based on significance value estimation from the research model perimeter. The inter-variable significant rate is shown from the CR. Table 5 shows an impact of FP on FI of 0.298, with a CR of 2.276 and a p-value of 0.023. The impact of the CP variable on FI is 0.289, with a CR of 3.465 and a p-value of 0.000. The impact of the PS and FC variables is not significant on FI. The results also show that FP is impacted by three exogenous variables: PS (CR of 3.250 and p-value of 0.001), FC (CR of 3.295 and p-value of 0.000), and CP (CR of 2.126 and p-value of 0.034). The results suggest that all hypotheses in this research are acceptable except H3 and H5.

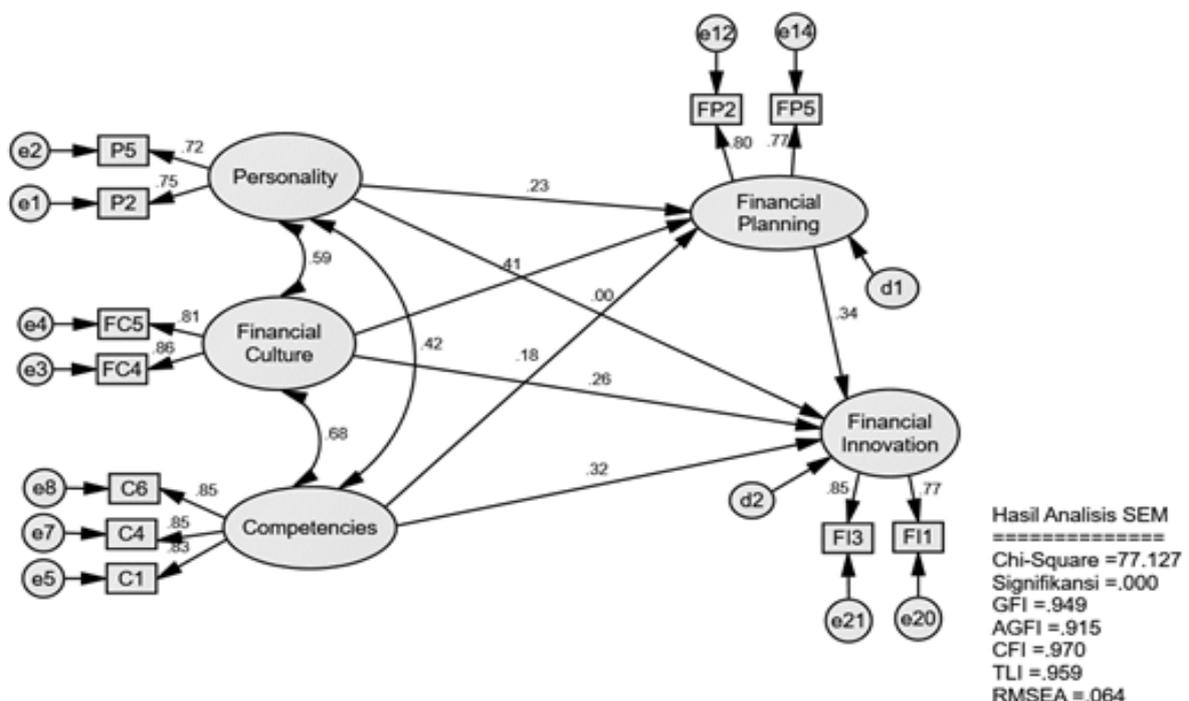


Figure 2. Structural model and coefficient path

The results in Table 4 show that the exogenous variables were able to explain the effect on financial planning by 0.498, or 49.8%. When the endogenous variable of financial planning contributes in equation 6, it is found that all exogenous variables and financial planning influence financial innovation by 0.631, or 63.1%.

Table 5 summarizes the impact numbers of each latent variable, direct or indirect, and total effects. The direct effect is the coefficient of the direct relationship between exogenous and endogenous variables. Meanwhile, the indirect effect is the emerging effect from intervening variables, and the total effect is the sum of the direct and indirect effects.

According to the outputs in Table 5, it is known that the direct impact of financial planning on financial

innovation is equal to its total effects by $\beta = 0.343$. The impact of personality on financial planning totals $\beta = 0.234$. There is no direct impact from personality on financial innovation, while the indirect impact of $\beta = 0.080$ is higher than its indirect impact on financial planning. Personality's impact on financial innovation is strengthened with financial planning. The direct impact of financial culture on financial planning of $\beta = 0.407$ is equal to its total effect, and there is a direct impact of financial culture on financial innovation, $\beta = 0.257$. Even if H5 is rejected, the direct effect of financial culture on financial innovation is lower than its total effect coefficient, which means the impact of financial culture is higher than the impact of financial planning by $\beta = 0.396$. Competencies impact financial planning directly by $\beta = 0.179$, and the indirect impact on financial innovation is strengthened by financial planning $\beta = 0.378$.

Table 3. Regression results

Hypothesis	Standardized Regression Weights					
	Relationship	Estimate	SE	CR	Prob.*	Decision
H1	FP → FI	0.298	0.131	2.276	0.023	Accepted
H2	PS → FP	0.432	0.133	3.250	0.001	Accepted
H3	PS → FI	0.185	0.106	1.743	0.081	Rejected
H4	FC → FP	0.302	0.092	3.295	0.000	Accepted
H5	FC → FI	0.000	0.106	0.002	0.999	Rejected
H6	CP → FP	0.240	0.113	2.126	0.034	Accepted
H7	CP → FI	0.289	0.083	3.465	0.000	Accepted

*Denotes rejection of the null hypothesis at the 0.05 level

Table 4. Squared multiple correlations results

	Hypothesized*	Estimate
Financial Planning		0.498
Financial Innovation		0.631

Table 5. Evaluation of direct and indirect effects

Relationship	Direct (DE)	Indirect	Total Effect (TE)	Comparison
FP → FI	0.343	0.000	0.343	DE=TE
PS → FP	0.234	0.000	0.234	DE=TE
PS → FI	0.000	0.080	0.081	DE<TE
FC → FP	0.407	0.000	0.407	DE=TE
FC → FI	0.257	0.140	0.396	DE<TE
CP → FP	0.179	0.000	0.179	DE=TE
CP → FI	0.316	0.061	0.378	DE<TE

Theoretical Implication

This study found that financial planning affects financial innovation. Financial planning as an intervening variable in this research shows its direct impact on financial innovation. This correlation is positive, whereas financial planning intensity, which SME owners prepared, can influence business financial innovations implementation. Financial planning is part of the financial management process that can help SME owners determine the enterprise's goals and target and plan sufficient insurance to ensure the future viability of the business and its income. The clarity in the enterprise's goals and targets allows the owner to ensure financial viability and meet the cash flow needs while achieving these goals and targets. In agreement, Damanpour et al. (2018) confirm that careful planning is critical to innovation's success. The financial innovations referred to in this study are enterprise competencies in carrying out financial system improvements, capital structure, and market monitoring. Well-structured financial planning makes it easier for owners to make changes or modifications in the financial system and the structure of the enterprise capital.

Financial innovation can occur well when financial planning is neatly arranged, as financial planning is a budgeting process to meet the goals of the enterprise. Optimizing financial planning for innovation can improve enterprise performance. Eniola and Entebang (2015) gave evidence of financial innovation by using crowdsourcing of financing by SMEs to meet enterprise funding needs; the results of this study agree that conceptualizing SME financing challenges and exploiting innovative ways to improve enterprise finance will support the growth and progress of SMEs. Financial conceptualization and exploitation are crucial parts of the financial planning process. Thus, proper financial planning will help innovation activities to determine the feasibility of new ideas and alternative decision-making.

The empirical results of this study indicate that personality directly affects SME financial planning but indirectly affects financial innovation. As a result, personality indirectly correlates with financial innovation through financial planning as a mediator. The personality of SME owners can influence the enterprise's financial innovation activities when financial planning is suitable. Personality, as

measured by the tendencies of SME owners in work spirit (conscientiousness) and emotional control (neuroticism), can determine the setting of goals, financial targets, and insurance planning. SME financial innovation activities do not depend entirely on their owner's personalities, but the effect of the intensity and quality of financial planning plays an important role. The owner's personality can influence the intensity and quality of financial planning designed by the enterprise, then impact the financial innovation process. As SME owners have various characteristics, their responses to problems are also diverse (Rasheed & Siddiqui, 2019). These findings also agree with Buehler and Griffin (2003) that the quantity and quality of planning depend on the planner's personality. In SMEs, the owner is the leading planner and controller of the enterprise. An upbeat personality can influence the quantity and quality of financial planning and support plans.

Asebedo (2018) proposes that individual personality is divided into the "Big Five" traits, openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism. However, in this study, only conscientiousness and neuroticism represent SME owners' personalities in Indonesia. The results of this study find similarity to Asebedo (2018) that personality is closely related to financial behavior in the financial planning process. When SME owners have a passionate work spirit and are strong at managing positive and negative emotions, they can stimulate the SME financial planning process, and financial innovation takes place correctly. SME owners can plan the availability of enterprise financing during a given period, manage assets and liabilities, and monitor cash flow appropriately by not involving those with negative personalities in financial planning. This upbeat personality also encourages financial planning actions and strategy-making processes through innovative steps for the growth and development of prospective SMEs.

This study found a direct effect of financial culture on financial planning, but the direct effect did not occur on financial innovation. In other words, financial culture indirectly affects financial innovation through financial planning as a mediator. It is because the empirical results show that the total effect coefficient of financial culture on financial innovation is greater than the direct effect coefficient. Financial planning as a mediator strengthens the influence of financial

culture on financial innovation. The financial culture intended in this study is a habit of managing finances, which means a culture of understanding financial concepts and discipline in making financial reports, such as simple bookkeeping or complete financial statements. SME financial culture here can only be represented by two indicators from Rumyantseva (2013): financial concept and financial reporting.

As Cannizzaro and Anderson (2016) mentioned, the habit that grows is culture itself. SME owners must create a positive atmosphere to support the enterprise's growth. This study agrees that financial culture has a role in maintaining a company's financial health (Rumyantseva, 2013), while financial health is determined by financial planning. An understanding of broad financial concepts and discipline instilled by owners in managing finances, including financial planning, can minimize inefficient financial transactions and lead to increased SME productivity, particularly in terms of financial innovation. A strong financial culture creates a climate that supports enterprises to plan finances for future innovations. Moreover, it maintains company innovation and creativity.

Another finding from the research is that competencies directly affect both financial planning and financial innovation. In addition, the impact of competencies on financial innovation is more substantial when financial planning is included as a mediator. Thus, competencies affect financial innovation both directly and indirectly. The competencies of SME owners in this study are the owner's ability to identify desired goods or services that customers need, negotiate, and understand the projected direction of the industry and how possible changes might impact the business. Out of the ten indicators from Man et al. (2008) adopted in the study, these three items can best explain SME owners' competencies in Indonesia. The competencies of qualified SME owners can determine the quantity and quality of financial planning and innovation actions. Competencies are needed to support financial planning and innovation activities (Vila et al. 2014). In SMEs, the leading planners and innovators are the business owners themselves. Owner competencies thus determine whether the enterprise will survive amid business competition.

As well as the argument of Teece (2004), explaining competencies as a strategic asset in understanding

customers and suppliers, SME owners' competencies to identify customer needs and measure suppliers' capability helps them to arrange financial planning more precisely and accurately. The competencies also enable the owner to be more innovative in managing their finances so that earnings and expenses targets can be known. In line with Racela (2014) and as such, building innovation competencies requires a strong set of organizational knowledge, abilities, and motivations to ensure that innovation activities are geared towards serving market needs and organizational goals. This paper presents an interdisciplinary view integrating literature from the disciplines of marketing, innovation, and organization studies and discusses the valuable role that a customer orientation may play in the development of innovation competencies and subsequent organizational outcomes. A customer orientation has often been criticized as constraining certain innovation processes. Nevertheless, since innovation is regarded as a knowledge-based capability, this paper posits that the execution of market-sensing, customer-relating, and customer-response capabilities lend to, rather than inhibit, innovation competencies. In describing innovation, the view taken here is on two distinct but interrelated concepts, namely creativity (i.e. idea generation and problem solving, owner competencies help to ensure innovation activity runs properly to serve market needs and the company's purposes. Meanwhile, the development of owner competencies can lead to a more dynamic business, excellent responsiveness to competitors' actions, and greater levels of innovation.

Managerial Implication

This study implies several points that can be evaluated for SMEs. First, this study suggests SMEs innovate in accessing finance by broadening their horizons for business sustainability. For example, crowdfunding on peer-to-peer (P2P) lending platforms or others. The financing system has continued to develop with innovations from the internet, such as crowdfunding. Crowdfunding companies in Indonesia, such as Santara, Crowddana, Crowdo Indonesia, Ammana.id, Akseleran, and others continue to emerge and have financed thousands and even millions of SMEs. SMEs can use these facilities to carry out financial innovations and financial planning. Exploiting these financial innovations can ensure corporate cash availability and encourage future performance.

Second, the edge of business success is planning. SMEs may be able to improve their management and begin to make financial plans and targets for the next of one year, three years, or five years. This plan will be helpful for SMEs to find out their financial condition so that their capital needs can be known. Finally, the quantity and quality of planning depend on the planner's behavior, which is the owner/manager of SMEs. The findings have proven that SME leaders' personalities, financial culture, and competence encourage innovation when financial planning is carried out.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The evidence in this study strongly indicates that SME managers should focus on their enterprises' financial planning and design financial innovation. The research results show that financial planning is a mediator factor in determining SMEs' financial innovation activity. Financial planning also mediates the impact of personality, financial culture, and competencies on financial innovation. SMEs' financial innovation activities do not entirely depend on the owners' personalities, competencies, or the growing financial culture in a company. The company's intensity and quality of financial planning play a crucial role and strengthen the impact of these three elements in SMEs' financial innovation success. Conscientiousness and neuroticism have been shown to impact financial planning in determining a company's financial purposes and targets, as well as insurance planning which impacts a company's sensitivity to financial innovation. Poor financial planning reflects the low and careless attention of the owners, which can lead to broader financial problems. Understanding the impact of personality in financial decision-making can help financial planning and inform the owners' efforts to be innovative in generating funding.

The financial culture atmosphere in an enterprise has been found to have a significant effect on financial planning. Owners or financial staff that fully understand financial concepts and good bookkeeping would have more robust and innovative financial planning. The following finding is the tendency of SME owners to act against competitors' modifications and advancement, which makes it challenging to

maintain the business and technological advancement. SME owners need to improve their competencies in managing their financial enterprise and planning in detail for business sustainability. Governments can strengthen SME owner competencies in financial management by training them in technical aspects, such as marketplace apps, simple app-based financial reports, business-canvas-making supervision, and other training.

Recommendations

In the end, this research is limited to the explanatory financial behavior of SME managers/owners. Future research could investigate the effect of SME owners' personality, culture, and competence on an enterprise's financial performance. Investigate the knowledge spillover effect of the owner on employees, which is purely related to financial performance. This concept is exciting to go into other works.

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REFERENCES

- Adomako S, Danso A, Damoah JO. 2015. The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital* 18(1): 43–61. <https://doi.org/10.1080/13691066.2015.1079952>
- Alexandra L, Erzsébet N, Boglárka Z. 2017. Financial personality types and attitudes that affect financial indebtedness. *International Journal of Social Science and Economic Research* 02(09):4687–4704.
- Amir RM, Burhanuddin B, Priatna WB. 2018. The effect of individual, environmental and entrepreneurial behavior factors on business performance of cassava smes agroindustry in Padang City. *Indonesian Journal of Business and Entrepreneurship (IJBE)* 4(1): 1–10. <https://doi.org/10.17358/ijbe.4.1.1>

- Archer L, Sharma P, Su JJ. 2020. SME credit constraints and access to informal credit markets in Vietnam. *International Journal of Social Economics* 47(6): 787–807. <https://doi.org/10.1108/IJSE-11-2017-0543>
- Asebedo SD. 2018. Personality and Financial Behavior. In *Client Psychology* (pp. 137–153). <https://doi.org/https://doi.org/10.1002/9781119440895.ch9>
- Asebedo SD, Wilmarth MJ, Seay MC, Archuleta K, Brase GL, MacDonald M. 2019. Personality and saving behavior among older adults. *The Journal of Consumer Affairs* 53(2): 488–519. <https://doi.org/10.1111/joca.12199>
- Bakhtiari S, Breunig R, Magnani L, Zhang J. 2020. Financial constraints and small and medium enterprises: a review. *Economic Record*, 96(315):506–523. <https://doi.org/10.1111/1475-4932.12560>
- Breuer W, Quinten B. 2009. Cultural Finance. Available at SSRN 1282068. <https://doi.org/http://dx.doi.org/10.2139/ssrn.1282068>
- Brown R, Lee N. 2019. Strapped for cash? Funding for UK high growth SMEs since the global financial crisis. *Journal of Business Research*, 99(June): 37–45. <https://doi.org/10.1016/j.jbusres.2019.02.001>
- Buehler R, Griffin D. 2003. Planning, personality, and prediction: the role of future focus in optimistic time predictions. *Organizational Behavior and Human Decision Processes*, 92(1–2): 80–90. [https://doi.org/10.1016/S0749-5978\(03\)00089-X](https://doi.org/10.1016/S0749-5978(03)00089-X)
- Cannizzaro S, Anderson M. 2016. Culture as Habit, Habit as Culture: Instinct, Habituescence, Addiction. In *Consensus on Peirce's Concept of Habit. Studies in Applied Philosophy, Epistemology and Rational Ethics* 31. https://doi.org/https://doi.org/10.1007/978-3-319-45920-2_18
- Cao S, Leung D. 2016. Financial constraint and productivity: evidence from canadian SMEs. In *Bank of Canada Staff Working Paper*.
- Costa PT, McCrae RR. 1992. Four Ways Five Factors are Not Basic. *Personality and Individual Differences* 13(6): 667–673. [https://doi.org/10.1016/0191-8869\(92\)90237-J](https://doi.org/10.1016/0191-8869(92)90237-J)
- Csiszárík-kocsir Á, Varga J, Fodor M. 2016. The value based analysis of the financial culture. *The Journal of Macrotrends in Social Science* 2(1):89–100.
- Damanpour F, Sanchez-Henriquez F, Chiu HH. 2018. internal and external sources and the adoption of innovations in organizations. *British Journal of Management* 29(4): 712–730. <https://doi.org/10.1111/1467-8551.12296>
- Davis K, Runyan RC. 2016. Personality traits and financial satisfaction: investigation of a hierarchical approach. *Journal of Financial Counseling and Planning* 7(1): 47–60. <https://doi.org/10.1891/1052-3073.27.1.47>
- Dunk AS. 2011. Product innovation, budgetary control, and the financial performance of firms. *British Accounting Review* 43(2): 102–111. <https://doi.org/10.1016/j.bar.2011.02.004>
- Eniola AA, Entebang H. 2015. SME firm performance-financial innovation and challenges. *Procedia - Social and Behavioral Sciences* 195: 334–342. <https://doi.org/10.1016/j.sbspro.2015.06.361>
- Fabrigar LR, Wegener DT, MacCallum RC, Strahan EJ. 1999. Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods* 4(3): 272–299. <https://doi.org/10.1037/1082-989X.4.3.272>
- Fatoki O, Odeyemi A. 2010. Which new small and medium enterprises in south africa have access to bank credit? *International Journal of Business and Management* 5(10): 128–136. <https://doi.org/10.5539/ijbm.v5n10p128>
- Fornell C, Larcker DF. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18(1): 39–50.
- Fung L, Durand RB. 2014. Personality Traits. In *Investor Behavior: The Psychology of Financial Planning and Investing* (pp. 99–115). John Wiley & Sons, Inc. <https://doi.org/https://doi.org/10.1002/9781118813454.ch6>
- García-Quevedo J, Segarra-Blasco A, Teruel M. 2018. Financial constraints and the failure of innovation projects. *Technological Forecasting and Social Change* 127(February); 127–140. <https://doi.org/10.1016/j.techfore.2017.05.029>
- Hadiyati E. 2015. Marketing and government policy on msme in indonesia: a theoretical framework and empirical study. *International Journal of Business and Management* 10(2): 128–141. <https://doi.org/10.5539/ijbm.v10n2p128>
- Hair J, Hollingsworth CL, Randolph AB, Chong AYL. 2017. An updated and expanded assessment of pls-sem in information systems research. *Industrial Management & Data Systems* 117(3):442–458. <https://doi.org/10.1108/IMDS->

04-2016-0130

- Ihua UB. 2017. SMEs key failure-factors: a comparison between the united kingdom and Nigeria. *Journal of Social Sciences* 18(3): 199–207. <https://doi.org/10.1080/09718923.2009.11892682>
- Ismanto H, Muharam H, Pangestuti IRD, Widiastuti A, Rofiq F. 2019. The nexus between financial literacy and the credit status in Indonesia. *Financial Studies* 23(3): 49–65.
- Jones P, Ratten V. 2021. Knowledge spillovers and entrepreneurial ecosystems. *Knowledge Management Research & Practice* 19(1): 1–7. <https://doi.org/10.1080/14778238.2020.1801363>
- Kim H, Ku B, Kim JY, Park YJ, Park YB. 2016. Confirmatory and exploratory factor analysis for validating the phlegm pattern questionnaire for healthy subjects. *Evidence-Based Complementary and Alternative Medicine* 2016(2016): 2696019. <https://doi.org/10.1155/2016/2696019>
- Lee SM, Trimi S. 2018. Innovation for creating a smart future. *Journal of Innovation & Knowledge* 3(1):1–8. <https://doi.org/10.1016/j.jik.2016.11.001>
- Lu Z, Wu J, Li H, Nguyen DK. 2022. Local Bank, digital financial inclusion and sme financing constraints: empirical evidence from China. *Emerging Markets Finance and Trade* 58(6):1712–1725. <https://doi.org/10.1080/1540496X.2021.1923477>
- Man TWY, Lau T, Chan KF. 2002. The competitiveness of small and medium enterprises: a conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing* 17(2): 123–142. [https://doi.org/10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6)
- Man TWY, Lau T, Snape E. 2008. Entrepreneurial competencies and the performance of small and medium enterprises: an investigation through a framework of competitiveness. *Journal of Small Business and Entrepreneurship* 21(3):257–276. <https://doi.org/10.1080/08276331.2008.10593424>
- Mccarthy B. 2003. Strategy is personality-driven, strategy is crisis-driven: insights from entrepreneurial firms. *management decision* 41(4): 327–339. <https://doi.org/10.1108/00251740310468081>
- mchugh s, ranyard r. 2012. credit repayment decisions: the role of long-term consequence information, economic and psychological factors. *Review of Behavioral Finance* 4(2): 98–112. <https://doi.org/10.1108/19405971211284880>
- McHugh S, Ranyard R. 2016. Consumers' credit card repayment decisions: the role of higher anchors and future repayment concern. *Journal of Economic Psychology* 52(February): 102–114. <https://doi.org/10.1016/j.joep.2015.12.003>
- Mutegi HK, Njeru PW, Ongesa NT. 2015. Financial literacy and its impact on loan repayment by small and medium entrepreneurs. *International Journal of Economics, Commerce and Management* III(3): 1–28.
- Ng HS, Kee DMH, Ramayah T. 2019. Examining the mediating role of innovativeness in the link between core competencies and SME Performance. *Small Business and Enterprise Development* 27(1): 103–129. <https://doi.org/10.1108/JSBED-12-2018-0379>
- Pulka BM, Ramli A, Mohamad A. 2021. Entrepreneurial competencies, entrepreneurial orientation, entrepreneurial network, government business support and SMEs performance. The moderating role of the external environment. *Journal of Small Business and Enterprise Development* 28(4): 586–618. <https://doi.org/10.1108/JSBED-12-2018-0390>
- Racela OC. 2014. Customer orientation, innovation competencies, and firm performance: a proposed conceptual model. *Procedia - Social and Behavioral Sciences* 148: 16–23. <https://doi.org/10.1016/j.sbspro.2014.07.010>
- Rasheed R, Siddiqui SH. 2019. Attitude for inclusive finance: influence of owner-managers' and firms' characteristics on SMEs financial decision making. *Journal of Economic and Administrative Sciences* 35(3): 158–171. <https://doi.org/10.1108/JEAS-05-2018-0057>
- Rumyantseva A. 2013. The impact of financial culture on the operating rates. *Saint-Petersburg University of Management and Economics, Saint-Petersburg, Russia* 169–176.
- Sebestova J, Rylkova Z. 2011. Competencies and Innovation within Learning Organization. *Economic and Management* 16: 954–961.
- Siddiqui MA. 2017. The effects of entrepreneurs characteristics on loan repayment behaviour of MSMEs. *Journal of Management and Technology* 13(2): 16–21.
- Teece DJ. 2004. Knowledge and Competence as Strategic Assets. *Handbook on Knowledge Management* 1: 129–152. <https://doi.org/10.1108/19405971211284880>

- org/10.1016/b978-0-7506-9850-4.50013-0
- Tehseen S, Ahmed FU, Qureshi ZH, Uddin MJ, TR. 2019. Entrepreneurial competencies and SMEs' growth: the mediating role of network competence. *Asia-Pacific Journal of Business Administration* 11(1): 2–29. <https://doi.org/10.1108/APJBA-05-2018-0084>
- Tufano P. 2003. Financial innovation. In *Handbook of the Economics of Finance* (pp. 308–335). Elsevier Masson SAS. [https://doi.org/10.1016/S1574-0102\(03\)01010-0](https://doi.org/10.1016/S1574-0102(03)01010-0)
- Vila LE, Pérez PJ, Coll-Serrano V. 2014. Innovation at the workplace: do professional competencies matter? *Journal of Business Research* 67(5): 752–757. <https://doi.org/10.1016/j.jbusres.2013.11.039>
- Wang W. 2012. How the small and medium-sized enterprises' owners' credit features affect the enterprises' credit default behavior? *E3 Journal of Business Management and Economics* 3(2):090–095.
- Wellalage N, Locke S. 2017. Access to credit by smes in south asia: do women entrepreneurs face discrimination. *Research in International Business and Finance* 41(October): 336–346. <https://doi.org/10.1016/j.ribaf.2017.04.053>
- Yoshino N, Taghizadeh-Hesary F. 2018. *The Role of SMES in Asia and Their Difficulties in Accessing Finance* (ADBI Working Paper Series 911). <https://doi.org/http://hdl.handle.net/11540/9483>
- Zsótér B. 2018. The Aspects of Financial Culture Among Young Adults. *Ekonomске Ideje i Praksa* 30: 51–71.