JEL: O30, O35, Q00, Q12

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EFFECT OF ENTREPRENEUR PERSONALITY AND SOCIAL NETWORK SITES ON INNOVATION PERFORMANCE: EVIDENCE FROM INDONESIA

Purpose. *This study aims to determine whether entrepreneurial characteristics and social network sites affect innovation performance of millennial farmers in Central Java, with dynamic capability as a mediation variable.*

Methodology / approach. *A case study of millennial farmers in Central Java was conducted with a sample of 135 respondents. The samples were selected using a purposive sampling technique, they have been in agricultural businesses for at least two years, and registered as millennial farmers ambassadors. The method of data analysis was Structural Equation Modeling, with Partial Least Squares serving as the analytical tool.*

Results. *The results showed that demographics and social network sites of entrepreneur had no direct effect on innovation performance, while personality showed a significant effect. Dynamic capability variable moderately mediated between personality and innovation performance indirectly. A successful millennial farmer on innovation must have a strong entrepreneurial character. A strong entrepreneurial mindset is necessary for effective business management. Self-confidence, willingness to take risks, a grand vision, and superior creativity are required to achieve dynamic capability in driving change and innovation within the business. Millennial farmers must also think and act dynamically following technological developments and changing business environments.*

Originality / scientific novelty. *The novelty lies in the exploration of innovation performance of millennial farmers, which has not been extensively examined. Although several studies have been conducted previously, the investigation into millennial farmers in Indonesia imparts a distinctive characteristic. Millennial farmers represent the future generation in the agricultural sector, but their contribution to the economy is decreasing. Previous studies tested social network sites and entrepreneurial personality in separate studies. However, this study examines social network sites as external factors and entrepreneur personality and demographics as internal factors that influencing innovation performance. This is done to provide a more comprehensive picture of the factors that drive innovation performance. Therefore, examining their innovation performance comprehensively aims to understand the affecting factors and take action for improvements. Testing and categorising the effect of dynamic capability as a mediating variable also enriched early studies.*

Practical value / implications. *The results provided a scholarly contribution by enriching the discourse on entrepreneurship and its effect on business performance. This research is useful for millennial farmers to win the competition and strengthen their competitive advantage.*

Key words: *entrepreneur personality, dynamic capability, entrepreneur demographics, innovation performance, millennial farmer.*

1. INTRODUCTION

Entrepreneurship role is a crucial part of economic development, increase independence and economic progress both in developed and developing countries [1; 2]. It is intrinsically related to job opportunities, innovation, and increased well-being [3; 4]. A significant and resilient number of entrepreneurs are assets in building a strong economy [5; 6]. However, the proportion in Indonesia only reaches 1.6 % of the total population, which is significantly smaller compared to Japan (10 %), the United States (11.5 %), China (10.0 %), Singapore (7.2 %), and Malaysia (4.0 %). The Global Entrepreneur Monitor states that the ideal number of entrepreneurs in a country should be at least 2 % of its total population, to ensure continuous advancement of the economy [7]. The greater the number of entrepreneurs, the more advanced the economy [8].

The agricultural sector is one of the significant contributors to the Indonesian economy. However, the workforce in this sector is decreasing, leading to the prediction of an unsustainable future, specifically in Central Java Province [9–11]. Millennial youths are reluctant to work or engage in this sector due to perceived lower profitability compared to other sector [10; 12]. Entrepreneurial characteristics are vital in building innovation system, network, and market [13].

The Indonesian government needs to accelerate and transform innovation to make agriculture more attractive to the younger generation. According to previous studies, the development of agricultural innovation, knowledge, and technology is essential [14; 15], primarily beginning at the macro level [16]. Government policies should be directed towards encouraging millennial farmers to be innovative, thereby enhancing productivity, value addition, and competitiveness. Furthermore, there is a need to shift agricultural exports from raw materials to processed products and innovative offerings with significant added value. This means that competitive advantage and innovation constitute the strength of Indonesia in the regional and global markets [17]. These dynamics present both challenges and significant opportunities for millennial farmers in Central Java to increase the value added to the agricultural sector through innovation. On the other hand, these opportunities are sometimes not used properly due to the constraints of entrepreneurial characteristics.

The purpose of the article is to determine whether entrepreneurial characteristics and social network sites affect innovation performance of millennial farmers in Central Java. The novelty lies in the exploration of innovation performance of millennial farmers, which has not been extensively examined. Millennial farmers represent the future generation in the agricultural sector, but their contribution to the economy is diminishing. Therefore, examining their innovation performance comprehensively aims to understand the affecting factors and take action for improvements.

2. LITERATURE REVIEW

Entrepreneurial characteristics are reflected in two variables, namely personality and demographics. Personality is manifested through self-efficacy, locus of control, attitude toward risk, and curiosity. Self-efficacy is depicted as the belief of an

individual in their ability to perform tasks and achieve goals [18]. Locus of control indicates adaptability to changing conditions, openness to new experiences, and a dislike for repetitive actions [19]. Furthermore, the willingness to take risks involves the readiness to change decisions or behaviours in various ways [20]. Curiosity represents a key driver of innovation that encourages the creation of novelty, knowledge, and new business methods [21]. Recognising entrepreneur personalities is important because different personalities will affect performance [22]. Based on this literature, this research determines the hypothesis:

H1: Entrepreneur personality positively affects innovation performance.

The ability of a company to provide and sustain its competitive advantage is essential for strategy implementation. The capability of innovation is a valuable company asset and a key to the competition, which is required to develop products. This capability operates as a dynamic entity, involving the interaction between internal knowledge and external market demands [23]. Dynamic capability (DC), a key factor in competitiveness has both direct and indirect impacts. It serves as the driver of innovation, creating new resources that have a competitive advantage [24; 25]. Dynamic capability is the ability to find and manage resources, competencies, technology and knowledge by involving stakeholders in the business environment. Dynamic capability can generally be measured in three ways, including integration, absorptive, and innovation. Managers are required to integrate and manage resources, both internal and external, through coordination capability. Effective absorption of new external knowledge, transformation into valuable assets, and adaptation for achieving business goals are important. Furthermore, there is a need to possess innovation capacity, as well as develop and implement new ideas, processes, products, and services through strategic innovative behaviours and learning [26].

Entrepreneurship is a comprehensive ability that empowers managers to adapt their business strategies in response to environmental changes. It also affects innovation performance [27]. According to a previous study, dynamic capability also partially mediates effect between entrepreneurship and innovation performance [27]. Based on the results of this literature, the following hypothesis are proposed:

H2: Entrepreneur personality positively affects dynamic capability.

H3: Dynamic capability positively affects innovation performance.

Demographics of entrepreneurs include age, educational level, gender, and experience. Age affects innovation performance [28], as it reflects the maturity level of an individual. In business, age is seen as the length of time required for a person to live, grow, and succeed [29]. The educational level is an essential source to acquire skills, knowledge, networking, and problem-solving abilities [30]. The decision to become entrepreneur is affected by various factors, such as gender [31]. On average, women have stronger skills than men in promoting idea exchange, resolving conflicts, responding to changes, and empowering others [32]. Referring to these findings, the following hypothesis is proposed:

H4: Entrepreneur demographics positively affect innovation performance.

Social network sites have been used in daily life and provide benefits in various

fields [33]. Social networks allow everyone to gather and share opinions, knowledge and experiences with their community [34]. The use of social network sites (SNS) can also enhance innovation performance effectively. SNS usage includes communities, social media platforms, and capability [35]. Furthermore, this is effective tool for fostering innovation [36], and ensuring business success [37]. Based on the results of this study, this research determines the following hypothesis:

H5: Social network sites affect innovation performance.

These hypotheses are summarized in the model as follows:

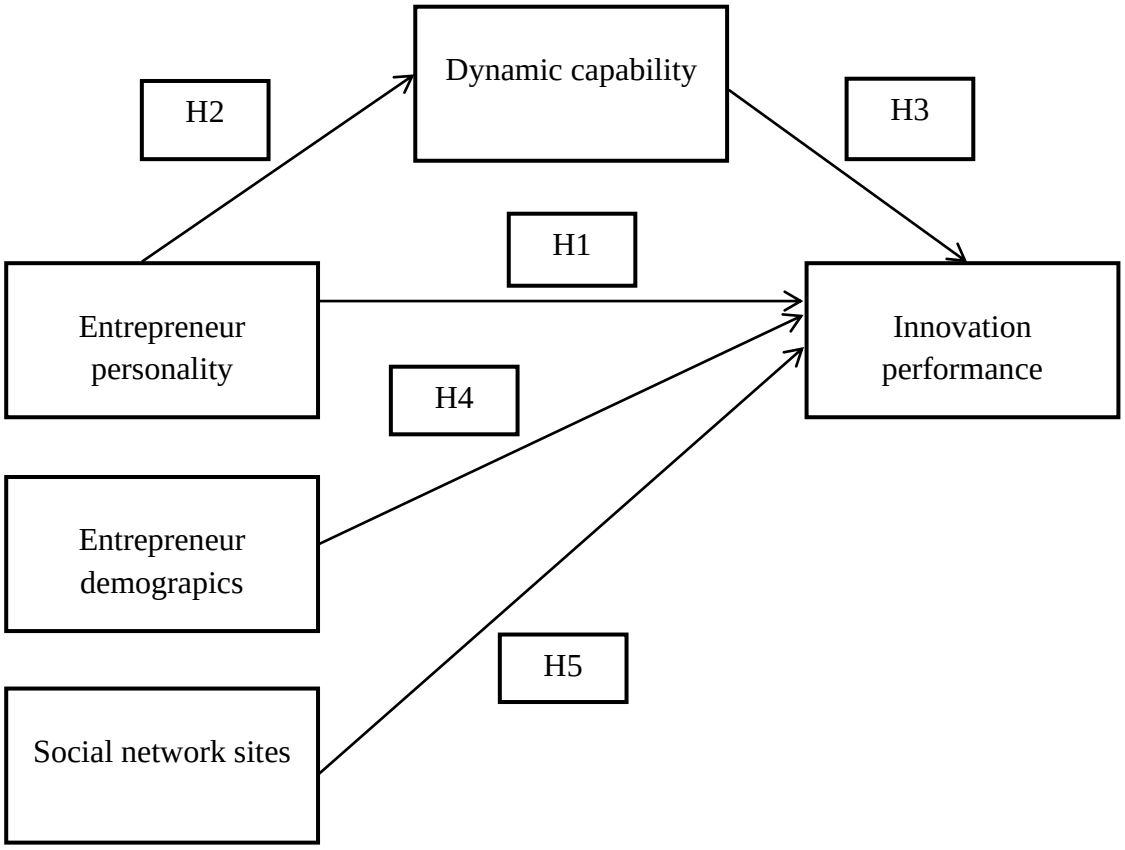

Figure 1. Model of the effect of entrepreneur characteristics and social network on innovation performance

Source: adopted by Patricio et al. [21]; Aro et al. [26]; Cui & Song [27]; Scuotto et al. [37].

3. METHODOLOGY

This study used a descriptive analysis method with a quantitative design. The location was purposively determined as Central Java Province, considering its significant millennial farmers population of 975,600 individuals, or 33.7 % of the total farmers [38]. The inclusion criteria included millennial farmers aged 19–39, engaged in the food agricultural, horticulture, livestock, and plantation sector for at least two years. The sample size followed the variable-to-sample ratio of 1:15 [39]. Considering that there were nine study variables, the sample size was determined as 135 farmers. The variables and indicators used are presented in Table 1. The survey was conducted using a structured questionnaire through direct interviews with millennial farmers.

Table 1

The values of loading factors

Latent variables	Indicators	Reference sources
Entrepreneur personality (EP)	- Confidence in business (EP1) - Risk-taking for business advancement (EP2) - Ability to identify business opportunities (EP3) - Achievement of business targets (EP4) - Creativity (EP5) - Autonomy/authority in managing business (EP6) - Ownership of business vision (EP7)	[27; 37; 40; 42; 43]
Entrepreneur demographics (ED)	- Age (ED1) - Education (ED2) - Duration of business (ED3) - Number of Employees (ED4) - Revenue amount (ED5)	[42; 43]
Social network sites (SNS)	- Social media business community (SNS1) - Knowledge and use of social media for business (SNS2) - Ability to leverage social media (SNS3) - Active participation in social network (SNS4) - Enthusiasm in joining multiple social network (SNS5)	[37]
Dynamic capability (DC)	- I can effectively assimilate the knowledge and skills I have learned (DC1) - I can bring positive changes to my business (DC2) - I can manage business resources effectively (DC3) - I have prepared a clear business plan (DC4)	[26; 27; 37]
Innovation performance (IP)	- Continuous product innovation capability (IP1) - Business innovation process (IP2) - Market innovation (IP3) - Product lifecycle (IP4)	[27; 37; 40; 41; 42]

Source: formed on the basis of Aro & Perez [26]; Cui & Song [27]; Scuotto et al. [37]; Herlinawati et al. [40]; Ahn et al. [41]; Dorcas et al. [42]; Utomo et al. [43].

Before sharing the questionnaires with the respondents, validity and reliability tests were conducted. Convergent validity was considered fulfilled when the constructs have an Average Variance Extracted (AVE) greater than or equal to 0.5 [44]. Reliability measurement was performed using the composite reliability (CR) indicator with a minimum threshold of 0.7. Based on the test results, AVE was found to be above 0.5 and CR was more than 0.7, indicating that the instrument was valid and reliable.

The Structural Equation Model (SEM) method was used with the analytical tool being Partial Least Squares (PLS). SEM is a powerful variance-based model that does not rely on many assumptions and normal distribution of data, while PLS can handle relatively small sample sizes as well as both reflective and formative indicators [11; 44]. The tests conducted for the model included: (1) Measurement model testing (Outer Model) which comprised convergent validity (loading factor with a threshold of ≥ 0.7, AVE with a threshold of ≥ 0.5), and discriminant validity (cross-loading).

Reliability testing was conducted using Cronbach's alpha (CA) and CR indicators with a threshold of ≥ 0.7; (2) Structural model testing (Inner Model) was performed using bootstrapping to evaluate the significance of relationships between dependent and independent variables, while hypotheses were tested with this structural model.

4. RESULTS

4.1. Characteristics of the respondents. Based on Table 2, millennial farmers have completed 12 years of compulsory education up to high school and some of them have continued to university level. As millennial farmers, they are well aware that formal education is very important. The knowledge and environment acquired at school form a more prosperous farming concept.

Table 2

Identity of millennial farmers in Central Java province

Aspect	The average for each respondent
Age, year	30
Duration of Education, year	13
Number of Family Member, person	4

Source: primary data processed, 2023.

Figure 2 illustrates where the type of business run by millennial farmers is no longer just a producer, but is directly involved in marketing activities. This provides higher added value to marketing.

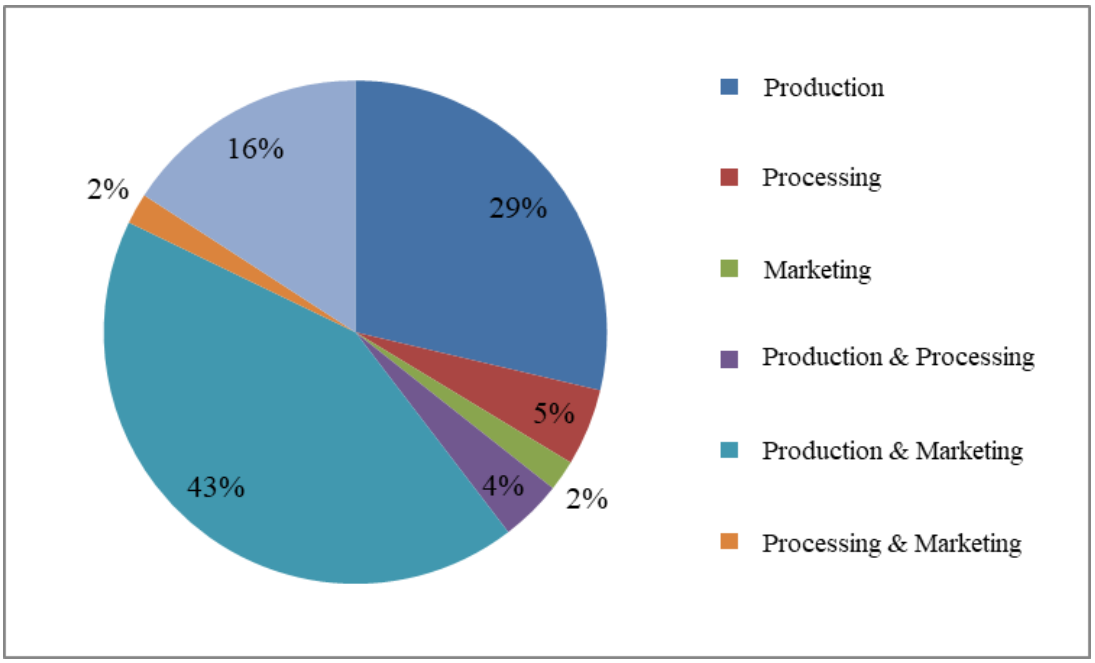

Figure 2. Types of business fields for millennial farmers in Central Java province

Source: primary data processed, 2023.

The business has been running relatively recently or less than 10 years (Table 3). Even though they are still relatively young compared to their parents, millennial farmers already have their own employees. In addition, more farmers venture to invest their capital as a source of financing.

Table 3

Identity of millennial farmer business characteristics in Central Java province

Type of business	Information
Duration of business	Average: 5.9 years
Number of employees	Average: 5 persons
Capacity of production	Varies depending on the commodity
Average turnover	52.84 million
Market share	Local: 53 farmers Regional: 13 farmers Domestic: 48 farmers Export: 6 farmers
Medium of marketing	Offline: 16 farmers Online: 104 farmers
Sources of funding a. Beginning b. Present	 Own capital: 92 farmers Outside capital: 28 farmers Own capital: 97 farmers Outside capital: 23 farmers

Source: primary data processed, 2023.

4.2. Measurement Model Test. *Convergent Validity*. The convergent validity (CV) of the reflective indicator measurement model was assessed based on the correlation between item components and construct scores calculated using PLS. Individual reflective indicators were considered high when the loading factor was > 0.70 for the intended construct. The loading factor results are presented in Table 4 and Figure 3. Based on Table 4, not all indicators indicated validity, consequently, some were excluded from the measurement model due to their homogeneity.

Table 4

The values of loading factors

Indicators	Entrepreneur personality	Entrepreneur demographics	Social network sites	Dynamic capability	Innovation performance
EP 1	0.786	-	-	-	-
EP 2	0.771	-	-	-	-
EP 3	0.717	-	-	-	-
EP 5	0.680	-	-	-	-
EP 6	0.691	-	-	-	-
EP 7	0.707	-	-	-	-
ED 2	-	0.736	-	-	-
ED 4	-	0.783	-	-	-
SNS 4	-	-	0.919	-	-
SNS 5	-	-	0.912	-	-
DC 1	-	-	-	0.786	-
DC 2	-	-	-	0.746	-
DC 3	-	-	-	0.886	-
DC 4	-	-	-	0.811	-
IP 1	-	-	-	-	0.851
IP 2	-	-	-	-	0.856
IP 3	-	-	-	-	0.856
IP 4	-	-	-	-	0.799

Source: output WarpPLS, 2023.

Validity was assessed by examining the AVE values of the latent variables. According to Table 5, all variables in this study were considered valid with AVE values greater than 0.5. This indicated that all variables were capable of explaining the diversity of all their indicators.

Table 5

AVE values

Variable	AVE	Description
Entrepreneur personality	0.513	Valid
Entrepreneur demographics	0.577	Valid
Social network sites	0.654	Valid
Dynamic capability	0.713	Valid
Innovation performance	0.707	Valid

Source: output WarpPLS, 2023.

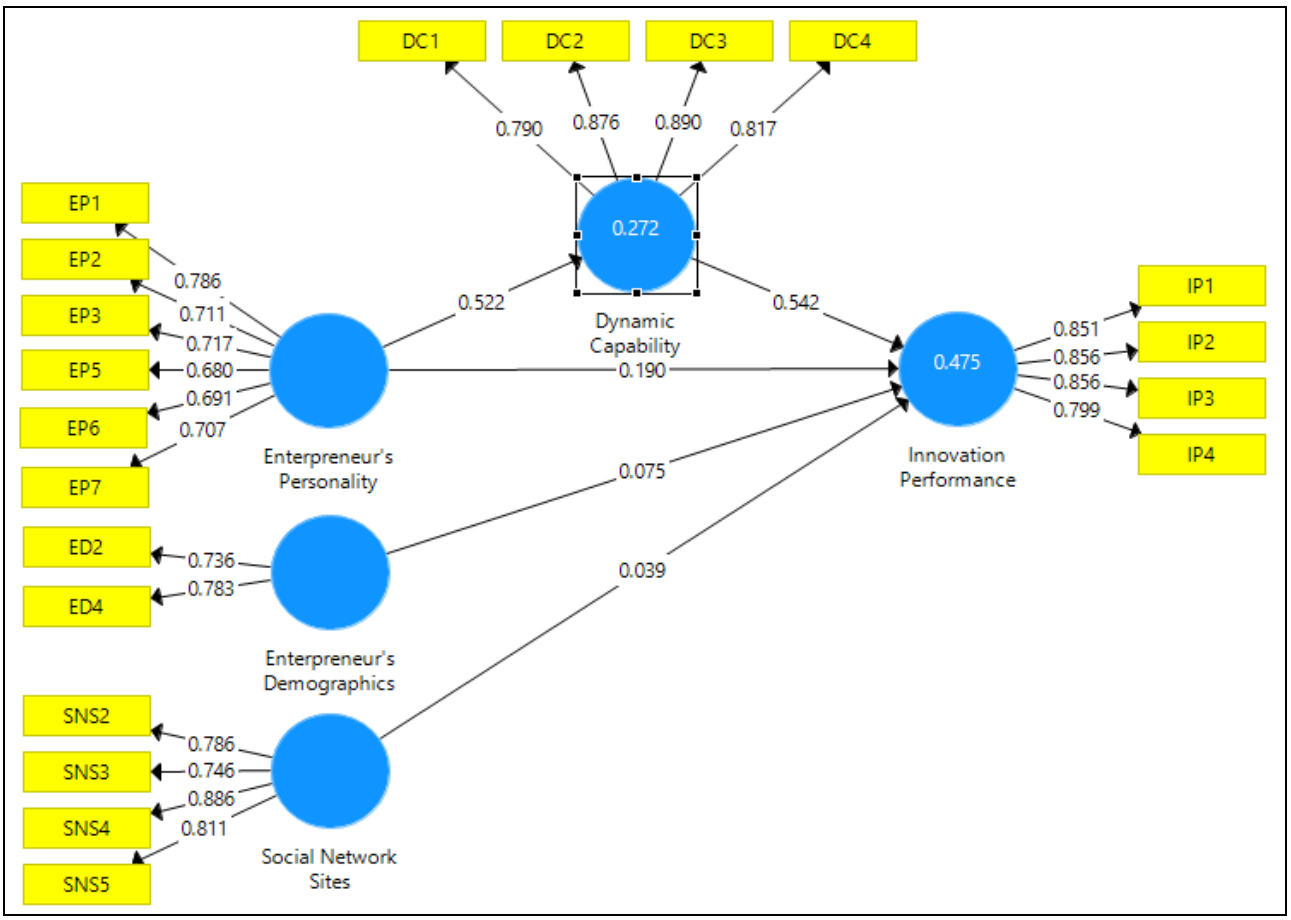

Figure 3. Study model

Source: output WarpPLS, 2023.

Based on Table 6, the loading factor values with the respective latent variable were greater than the cross-loading values for indicators with other latent variables. This indicated that the data satisfied the criterion of discriminant validity.

CR and CA. The reliability of an instrument in the outer model can be observed through the values of CR and CA. Both measures are statistical techniques used to determine the internal consistency in instrument reliability tests. A variable is considered reliable when it has a CR value above 0.6 and a CA value above 0.7. The

reliability test results are shown in Table 7.

Table 6

Discriminant validity test results

Indicators	Entrepreneur personality	Entrepreneur demographics	Social network sites	Dynamic capability	Innovation performance
EP 1	**0.786**	0.084	0.303	0.464	0.448
EP 2	**0.711**	-0.061	0.252	0.351	0.234
EP 3	**0.717**	0.166	0.220	0.360	0.438
EP 5	**0.680**	0.129	0.317	0.279	0.307
EP 6	**0.691**	0.120	0.242	0.303	0.340
EP 7	**0.707**	0.135	0.219	0.440	0.319
ED 2	0.158	**0.736**	0.016	0.154	0.108
ED 4	0.057	**0.783**	0.027	-0.016	0.118
SNS 2	0.203	0.064	**0.786**	0.170	0.247
SNS 3	0.222	-0.127	**0.746**	0.162	0.137
SNS 4	0.360	0.111	**0.886**	0.285	0.256
SNS 5	0.352	-0.025	**0.811**	0.390	0.246
DC 1	0.435	0.042	0.209	**0.790**	0.433
DC 2	0.436	0.057	0.321	**0.876**	0.553
DC 3	0.413	0.108	0.219	**0.890**	0.600
DC 4	0.475	0.077	0.327	**0.817**	0.621
IP 1	0.424	0.186	0.280	0.591	**0.851**
IP 2	0.390	0.010	0.247	0.608	**0.856**
IP 3	0.394	0.190	0.170	0.557	**0.856**
IP 4	0.475	0.115	0.260	0.453	**0.799**

Source: output WarpPLS, 2023.

Based on Table 7, each variable fulfilled the model assessment criteria, with CA and CR values above 0.7. This means that all variables in this study are considered reliable. All studied variables can provide consistent and stable answers.

Table 7

Reliability test results

Variable	Cronbach Alpha	CR	Description
Entrepreneur personality	0.811	0.908	Reliable
Entrepreneur demographics	0.704	0.732	Reliable
Social network sites	0.826	0.883	Reliable
Dynamic capability	0.865	0.908	Reliable
Innovation performance	0.862	0.906	Reliable

Source: output WarpPLS, 2023.

4.3. Structural Model Test. The structural model was evaluated using the R-square (R^2) for dependent constructs. Model assessment with PLS began by calculating the R^2 for each dependent latent variable. Changes in the values were used to assess effect of specific independent latent variables on the dependent. The R^2 ranged between 0 and 1, with values between 0.67, 0.33, and 0.19, indicating strong, moderate, and weak models respectively. Q^2 predictive relevance was used to measure how well the observation values generated by the model match the parameter estimates [44].

Table 8

R^2 and Q^2 values

Variable	Model	R^2	Q^2	Description
Dynamic capability	1	0.272	0.190	Moderate; has predictive relevance
Innovation performance	2	0.475	0.319	Weak; has predictive relevance

Source: output WarpPLS, 2023.

Table 8 shows that the R^2 value for model 1 was 0.272, indicating a weak model (Figure 1), while the value for model 2 was 0.475, meaning moderate (Figure 3). The Q^2 values for models 1 and 2 were 0.190 and 0.319 respectively, implying good predictive ability. The exogenous latent variables were found to be well-suited explanatory variables that can predict their endogenous counterpart.

4.4. Hypothesis Testing (Bootstrapping). The significance level used in hypothesis testing was 5 % (p-value ≤ 0.05). When the p-value was less than or equal to alpha (α), then the proposed hypothesis was accepted. Conversely, when the p-value was greater than or equal to alpha (α), the proposed hypothesis was rejected.

Table 9

Bootstrapping test

Hypothesis	T-statistic	P-values	Description
Entrepreneur personality → Innovation performance	1.965	0.050	Sig.
Entrepreneur personality → Dynamic capability	6.821	0.000	Sig.
Dynamic capability → Innovation performance	5.610	0.000	Sig.
Entrepreneur demographics → Innovation performance	0.776	0.438	Non-Sig.
Social network sites → Innovation performance	0.494	0.622	Non-Sig.

Source: output WarpPLS, 2023.

Effect of entrepreneur personality on innovation performance. The results indicated that entrepreneur personality had a significant effect on innovation performance, hence, hypothesis 1 (H1) was accepted. This aligned with Cui & Song [27] and Dorcas et al. [42] stating that higher self-confidence, strong creativity, and the willingness to take risks for business progress influenced innovation performance. Individuals who possess brilliant and distinct ideas from their competitors and have full confidence in their decisions can achieve superior innovation. The ability to read business opportunities, clear vision and targets, as well as autonomy in managing the business will drive higher levels of innovation performance. These personal characteristics are crucial for millennial farmers. According to Vecchio [45], high self-efficacy individuals swiftly transform opportunities into new business ideas. High self-confidence also facilitates tackling challenges and improves adaptability skills.

Millennial farmers face various challenges, including significant risks due to the perishable nature of agricultural commodities, susceptibility to spoilage and damage, and the risk of plant death caused by pests and diseases. Millennial era also presents unique challenges stemming from the evolving marketing landscape, the increasing market diversity, and the competitiveness of products. For instance, melon farmers in Tegal Regency should anticipate challenges such as pest attacks, limited capital, and

the new experiences associated with running a business. However, when farmers possess high self-confidence, a willingness to learn, and the ability to seek business partners, melon farming endeavours can survive and thrive. This aligns with Sánchez et al. [46] stating that many business people fail due to a lack of high self-confidence.

Farmers with a grand business vision are more motivated to achieve their business targets, reflecting high hopes for business advancement. Autonomy, an integral part of entrepreneur personality, gives millennial farmers the freedom and confidence to make business decisions. A strong entrepreneurial character drives innovation-oriented farmers to explore, apply knowledge, and seek new business relationships [47]. These characteristics and skills will contribute to achieving innovation performance faster and better.

Effect of entrepreneur personality on dynamic capability. The results showed that entrepreneur personality significantly affected dynamic capability, hence, hypothesis 2 (H2) was accepted. In other words, the stronger personality, the greater dynamic capability. This result aligned with Cui & Song [27] and Yamaguchi et al. [48] stating that millennial farmers with entrepreneurial characteristics, including self-confidence, risk-taking, creativity, opportunity recognition, grand vision, and goals, as well as autonomy in management, were likely to possess the ability to design business development and drive positive changes. Strong entrepreneurial characteristics also facilitate quick absorption of knowledge and skills as well as effective management of resources. For example, sheep farmers in Wonosobo Regency possess strong self-belief and optimism when starting their business. As their business develops, farmers diversify their income by processing sheep wool into shoes and traditional caps ("peci" or hats). The higher the creativity level, the better the ability to identify and exploit business opportunities.

Effect of dynamic capability on innovation performance. Hypothesis testing results showed that dynamic capability significantly affected innovation performance, consequently, hypothesis 3 (H3) was accepted. In other words, the greater dynamic capability, the higher their innovation performance. This study aligned with Cui & Song [27] and Kusnandar et al. [49]. Farmers who easily acquire knowledge and skills will learn more rapidly and can introduce novelty into their businesses. Those who intelligently used their acquired knowledge and skills achieved product innovation. Millennial farmers who are able to build effectively their businesses will also be adept at management. Each phase or stage of innovation implementation will be better organised and timely, based on a well-defined and planned program plan. According to Cepeda & Vera [50], a manager should have the high dynamic capability to compete effectively in a rapidly changing environment.

Millennial farmers, experienced in resource management, are able to effectively manage production cycles. For example, those who grow plant seeds and ornamental plants in Purworejo Regency skillfully control their product cycles in response to market dynamic. These farmers monitor the movement of seed and ornamental plant varieties with high prices and demand. The implementation of strategies, including good agricultural practices (GAP), enables the management of production cycles

[51], and minimises overproduction, thereby maintaining relatively stable high prices in the market. Concurrently, these farmers actively participate in seminars and training on cultivating new and unique commodities, such as miniature coconut trees ("kelapa bonsai"). Dynamic farmers are adaptable, thereby achieving more satisfying innovation performance. These results reinforce previous statements, such as Aro & Perez [26] and Tsai & Shih [52] that dynamic capability can drive better performance achievements.

Effect of entrepreneur demographics on innovation performance. The hypothesis testing results indicated that demographics did not have a significant effect on innovation performance, hence hypothesis 4 (H4) was rejected. This means that demographics factors such as age, education level, years of operation, and business scale (number of employees and revenue) do not affect innovation performance. Although millennial farmers belong to the productive age range (19–39 years), possess adequate educational backgrounds, and have business experience, these factors do not guarantee effective innovation performance. This result contrasts with Dorcas et al. [42]; Block et al. [53]; and Yaakub et al. [54] stating that business experience and education affect innovation performance. In this study, entrepreneur demographics were relatively homogeneous. The average age of millennial farmers was approximately 30 years, with a high school education level. The duration of their agricultural business operations was relatively consistent, mostly within the range of 5 to 6 years. Despite being within the productive age range and having a satisfactory average education level, strong entrepreneurial characteristics are still required to achieve good innovation performance.

Effect of social network sites on innovation performance. The results showed that social network sites did not significantly affect innovation performance, consequently, hypothesis 5 (H5) was rejected. Previous studies by Scuotto et al. [37] and Freixanet et al. [55] stated that the use of social network sites affected innovation performance. Although most millennial farmers are part of business communities, this involvement does not determine innovation performance. Information, knowledge, and skills obtained from social communities do not guarantee the success of implemented innovations. Success is determined by self-confidence, willingness to take risks, creativity, self-motivation, and dynamic capability in creating novelty within the business processes. In this study, the achievement of business innovation hinged on the strength of entrepreneurial characteristics possessed by farmers.

The role of dynamic capability as a mediating variable. This study examined effect of dynamic capability variable in mediating the relationship between entrepreneur personality and innovation performance. Based on the direct effect test (Table 6), personality had a direct and significant effect on innovation performance. Furthermore, the indirect effect test results through dynamic capability also indicated a significant effect (Table 7). There was a partial mediating effect in the relationship between personality and innovation performance through dynamic capability. This result aligned with Cui & Song [27], which also observed the presence of a mediating effect on the relationship between personality, and innovation performance.

Table 10

Mediating effect

Hypothesis	Path coefficient	P-value	95% interval confidence		Upsilon V (F-square)
			Lower limit	Upper limit	
Entrepreneur Personality → Dynamic capability → Innovation performance	0.283	0.000	0.196	0.394	0.079

Source: output WarpPLS, 2023.

However, in this study, the mediation role of dynamic capability was considered moderate. This was indicated by the value of upsilon V (F-square) of 0.079, which referred to Lachowicz et al. [56] and was close to 0.075 (moderate category). This means that entrepreneurial character possessed by millennial farmers will affect the achievement of innovation performance through dynamic capability in resource management, the ability to implement progressive business changes, as well as the quick assimilation of acquired knowledge and skills. A strong personality and effective dynamic capability are key to achieving superior innovation performance.

Millennial farmers are expected to be able to create self-confidence, dare to take risks, be visionary, and improve their self-quality by honing superior creativity. Of course, this entrepreneurial character requires stimulus from external factors, such as entrepreneurship seminars, training, and encouragement from policy makers so that conducive collaboration occurs.

5. DISCUSSION

This study provides interesting results and differs from previous studies. Millennial farmers tend to be gregarious, active in communities, both social and business, and tend to be active on social media. However, this activity in social networks does not have a direct impact on the innovation performance of millennial farmers. On the other hand, the personal characteristics of millennial farmers can directly improve innovation performance. This means that it is more important for a millennial farmer to develop a strong entrepreneurial character. Even though motivation and inspiration come from various social networks, without self-confidence, creativity and the courage to take risks, the innovation that is designed will not achieve the targeted goals.

The second interesting finding in this study are that dynamic capability acts as a mediator of the influence of personal characteristics on innovation performance and the category is medium. This means that the role of dynamic capability is a consideration in driving innovation performance. Strong personal characteristics will form good dynamic capabilities. Millennial farmers who have a strong sense of self-confidence, creativity and the courage to take risks will form the character of entrepreneurs who are able to learn quickly, design business plans, manage business resources, and make the expected changes in the business. Finally, the targeted innovation performance will be implemented.

6. CONCLUSIONS

In conclusion, innovation performance was identified as an indicator of success and a target for every business actor. It constitutes one of the tools to win competitions and strengthen competitive advantages. Entrepreneurial personality influences innovation performance through dynamic capabilities shown through the value of F-square (0.079) that close to 0.075 (moderate category). This study reinforced the opinion that personality and dynamic capability affect the achievement of innovation performance. Resilient entrepreneurial characteristics and good dynamic abilities are necessary to support the achievement of business innovation performance. A moderate mediating effect of dynamic capability was also found, while social network sites and demographics factor had no significant impact.

The results provided a scholarly contribution by enriching the discourse on entrepreneurship and its effect on business performance. Although several studies have been conducted previously, the investigation into millennial farmers in Indonesia imparts a distinctive characteristic. Based on the results, a strong entrepreneurial mindset is necessary for effective business management. Self-confidence, willingness to take risks, a grand vision, and superior creativity are required to achieve dynamic capability in instigating change and innovation within the business. Millennial farmers should also rapidly gain knowledge and skills from their external environment to generate innovation and effectively manage resources. For governmental bodies responsible for policies related to the One Million Millennial Farmers program initiated in 2019, comprehensive training, mentoring, and empowerment initiatives are needed. These measures should particularly focus on reinforcing entrepreneurial spirit of farmers in managing and developing their businesses.

7. LIMITATIONS AND FUTURE RESEARCH

This study has limitations, namely it was conducted on a sample of millennial farmers so that it provides specific results. Future research by taking different samples with a larger number of samples may provide a broader picture. An interesting finding that differs from previous studies is that social network sites do not affect the innovation performance of millennial farmers. Further studies are needed as millennial farmers how to use social networks to support business.

The study of millennial farmers from a more varied perspective is also interesting to follow up, including in terms of organisational behaviour, business sustainability strategies, and self-resilience of millennial farmers in developing their business. The cross-country study of millennial farmer business is also interesting to provide a more diverse portrait of the character of millennial farmers and the use of social networks to support business.

Conflicts of interest: the authors declare no conflict of interest.

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Citation:

Стиль – ДСТУ:

Riptanti E. W., Harisudin M., Kusnandar, Khomah I., Setyowati N. Effect of entrepreneur personality and social network sites on innovation performance: evidence from Indonesia. *Agricultural and Resource Economics*. 2024. Vol. 10. No. 1. Pp. 165–183. https://doi.org/10.51599/are.2024.10.01.07.

Style – APA:

Riptanti, E. W., Harisudin, M., Kusnandar, Khomah, I., & Setyowati, N. (2024). Effect of entrepreneur personality and social network sites on innovation performance: evidence from Indonesia. *Agricultural and Resource Economics*, 10(1), 165–183. https://doi.org/10.51599/are.2024.10.01.07.