THE IMPACT OF PERSONAL AND ENVIRONMENTAL FACTORS THROUGH EXPERIENCE CHARACTERISTICS ON ENTREPRENEURIAL PERFORMANCE IN INDONESIAN START-UPS

Lilian Danil[*))1], Siti Jahroh[*)], Rizal Syarief[*)], Asep Taryana[*)]**

[*)] School of Business, IPB University
SB IPB Building, Jl. Padjajaran, Bogor 16151, Indonesia
[**)]Faculty of Vocational Studies, Parahyangan Catholic University
Jl. Ciumbuleuit, Bandung 40141, Indonesia

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Abstract:

Background: Entrepreneurial performance is essential for start-ups' development, particularly the ability to transition smoothly from experimentation to scaling. Start-ups' performance in Indonesia remains challenging in that the failure rate is up to 90% within the first five years.
Purpose: This study aims to assess the direct influence of personal and environmental factors through experience characteristics on entrepreneurial performance in start-ups in Indonesia and the indirect influence of these factors through experience characteristics on entrepreneurial performance.
Design/methodology/approach: This study employed a quantitative approach, applying Partial Least Squares Structural Equation Modelling to analyze data collected from questionnaires distributed to 268 start-ups in Indonesia.
Finding/Results: The results indicated that personal and environmental factors significantly enhance experience characteristics and entrepreneurial performance. This study also found that personal and environmental factors through experience characteristics significantly enhance entrepreneurial performance in Indonesian start-ups.
Conclusion: This study evaluated how experience characteristics as a mediator strengthen the impact of personal factors on entrepreneurial performance and weaken the impact of environmental factors on entrepreneurial performance. This research possesses academic and managerial implications, particularly for advancing scientific progress in entrepreneurial performance models in start-ups in Indonesia.
Originality/value (State of the art): Start-ups must enhance their entrepreneurial performance by focusing on personal factors, including entrepreneurial education and passion, as well as environmental factors like developing a more dynamic entrepreneurial ecosystem, improving marketing techniques, and aligning with global market demand.

Keywords: business, entrepreneurial ecosystem, entrepreneurial education, entrepreneurship environment, start-ups' development

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[1] Corresponding author:
Email: liliandanil@unpar.ac.id

INTRODUCTION

Entrepreneurship is acknowledged for significantly contributing to innovation, economic growth, and job creation, particularly in emerging nations grappling with economic inequality and scarce formal employment possibilities. Previous research supports the relationship between entrepreneurial activities and economic development (Prokop & Thompson, 2023), as these activities can create capital, increase employment, and enhance the standard of living in a country. The evolution of the digital economy and technology innovations has propelled the swift expansion of start-ups globally, including in Indonesia. Unfortunately, CB Insights statistics (2021) indicate that over 90% of start-ups fail within the initial five years, primarily owing to internal factors such as insufficient market demand, regulatory challenges, managerial shortcomings, and lack of passion. There is a strong relationship between start-ups and entrepreneurial performance (Santamaria et al. 2024), as start-ups are the physical manifestation of entrepreneurial efforts. Entrepreneurial performance is a critical focus, given that numerous start-ups fail to endure despite intense competition and environmental fluctuations (GEM, 2021). According to a PwC Indonesia (2022) survey, start-ups' performance in Indonesia remains challenging in that the failure rate is up to 90% within the first five years, with the founders' lack of experience in business management being the leading cause. To avoid the failure or valley of death, start-ups need a successful plan to achieve entrepreneurial performance (Dzulfikar et al. 2022).

In this context, entrepreneurial performance becomes a critically significant subject to research. Entrepreneurial performance is the capacity of an entrepreneur to generate additional value through innovation and business sustainability (Covin & Slevin, 1991). Entrepreneurial performance as the capacity to meet established entrepreneurial objectives and to leverage available business opportunities (Sebikari, 2014). Entrepreneurial performance is categorized into two types: financial business performance (Barreira, 2004) and non-financial entrepreneurial performance. Ref (Kapepa & Van Vuuren, 2019) identified that entrepreneurial performance comprises profitability, growth rate, and innovation. The performance of start-ups involves balancing economic sustainability with social impact. This cohesive strategy underpins sustainable and significant entrepreneurship (Bae & Choi, 2024). Entrepreneurial performance significantly influences sustainable entrepreneurship and the Sustainable Development Goals (Danil & Fordian, 2022). Understanding the relationship between start-ups and entrepreneurial performance helps identify start-ups' personal and environmental factors. Personal factors related to motivation, self-efficacy, and personality influence start-ups by enabling them to seize opportunities and minimize risks (Seitz et al. 2024) as well as their entrepreneurial background (Nguven-Duc et al. 2017). Good personal factors encourage individuals to gain relevant and quality experience, which then strengthens their ability to run and develop a business (Moya-Clemente et al. 2020). Environmental factors include policies that encourage innovation (Venâncio et al. 2023), increase market opportunities (Löfsten et al. 2023), create a competitive advantage in the market (Santoso, 2024), and market dynamics in relation to business outcomes (Rauch & Frese, 2007). Nevertheless, few studies have concurrently integrated both groups of factors into a comprehensive analytical model. A significant research gap exists regarding how personal and environmental factors influence experience characteristics that enhance entrepreneurial performance.

Strong entrepreneurial performance requires support from an entrepreneurship experience. Furthermore, experience characteristics encompass work experience (Zhao et al. 2021), which can facilitate start-up founders in acquiring pertinent knowledge and skills and thereby enhancing entrepreneurial performance. Most studies also assume that the relationship between these factors and performance is direct without considering the mediating role, such as experience characteristics that might explain the processes behind it. However, experience characteristics such as work experience, previous entrepreneurial experience, and past failures are believed to play an important role in shaping practical entrepreneurial abilities (Peng et al. 2020). Most research has mainly looked at developed countries, but in developing countries with different social and economic challenges, the way these factors interact might lead to different results. The research problem investigates the direct impact of personal and environmental factors on experience characteristics and entrepreneurial performance in Indonesian start-ups. Furthermore, the indirect influence of these factors on performance through the attributes of entrepreneurial experience remains under-examined, particularly in regional contexts like Indonesia. Therefore, this research aims to fill these gaps by constructing and

testing a conceptual model that positions experience characteristics as a mediator between personal and environmental factors affecting entrepreneurial performance in Indonesian start-ups.

METHODS

This study employs quantitative methods, specifically Partial Least Squares Structural Equation Modelling (PLS-SEM), to analyse data utilizing linear and cross-sectional statistical modelling techniques. Numerous studies on entrepreneurial entrepreneurship have utilized PLS, as it serves as an effective method for examining construct reliability, convergent validity, and discriminant validity in the proposed model. Partial Least Squares (PLS) analysis is conducted using SmartPLS 4.0 to examine the relationships between independent latent variables (exogenous) and dependent latent variables (endogenous). The researcher executed the PLS-SEM stages by distributing questionnaires, subsequently processing the data through validity and reliability testing, constructing the structural model, assessing the model's goodness of fit, and interpreting the results. SEM analysis is implemented to provide causal explanations in estimating statistical models. The SEM-PLS path model consists of two sub-models, namely a structural model (inner model) and a measurement model (outer model). The structural model explains the relationship between latent variables which are built based on the substance of the theory. In contrast, the measurement model explains the correlation between latent variables and their indicators (Hair et al. 2017).

This research was conducted in January - November 2024. The research will take several respondents of start-ups in Indonesia. This study employs primary data from an online questionnaire administered via Google Forms. The survey will utilize a questionnaire employing the Likert scale to assess respondents' perceptions and attitudes, distributed digitally to ensure a diverse geographic reach. The researcher disseminated questionnaires to the respondents using a recruitment method involving start-up communities, particularly those in Bandung, university incubators, start-up events, and the cooperative and MSME ministry. Respondent eligibility is ensured through screening questions, such as role, sector within the start-up, and duration of business operations. Only founders, management, and investors can continue the survey. Measurements utilized a Likert scale ranging from 1 to 5, with 1 indicating strongly disagreeing, 2 indicating disagreement, 3 indicating neutrality, 4 indicating agreement, and 5 indicating strong agreement. Respondents are identified through a purposive sampling method. A purposive sampling method selects respondents by choosing subjects based on specific predetermined criteria. The respondents in this study are Indonesian start-ups that adopt technology or have technology-based production/ services, including owners, management, and investors. This study's sample size is based on the Monte Carlo Theory, which states that 200 is the bare minimum for reducing bias in any kind of structural equation modelling (SEM) estimate (Loehlin, 2004). Therefore, a total of 268 samples from Indonesian start-ups can enhance the SEM-PLS estimate results. The researcher presented 39 questions to the respondents regarding the four research variables. The researcher executed the PLS-SEM phase by administering questionnaires, followed by data processing that included validity and reliability testing, structural model construction, model fit assessment, and result interpretation.

This research examines the impact of personal and environmental factors on experience characteristics, utilising questionnaires distributed to start-ups in Indonesia. The questionnaire was developed based on the indicators for each variable, including the dimensions of the experience characteristic, which encompasses the work experience (Zhao et al. 2021), technological experience (Koster & Andersson, 2018), and entrepreneurship experience (Peng et al. 2020); the personal factor encompasses entrepreneurship background and personal characteristic (Ho et al. 2023) and entrepreneurship efficacy (Prastiwi & Agustina, Tri Siwi, n.d.); environmental factor encompasses three components: business characteristic (Nguyen et al. 2023), market strategy , and market demand (Anning-Dorson, 2017). Four perspectives can evaluate form the entrepreneurial performance dimension: entrepreneurship orientation (Udimal et al. 2019, 2021), passion (Schulte-Holthaus, 2019), risk taking and capitalising on business opportunity (Do Adro et al. 2021).

Previous research has indicated that personal factors play an important role in shaping the experience characteristics, which in turn has a significant impact on entrepreneurial performance. Good personal factors encourage individuals to gain relevant and quality experience characteristics, which in turn

strengthen their ability to perform well in a business (Moya-Clemente et al. 2020). Therefore, authors propose hypothesis 1, H1: Personal factors (PF) have an impact on experience characteristics (EC). A previous study has shown that environmental factors contribute considerably to experience characteristics by providing a supportive framework (Shao et al. 2024). Therefore, authors propose hypothesis 2, H1: Environmental factors (EF) have an impact on experience characteristics. Furthermore, previous research has shown that experience characteristics have a significant effect on entrepreneurial performance (Wu et al. 2023). Therefore, authors propose hypothesis 3, H1: Experience characteristics have an impact on entrepreneurial performance (EP). Additional research indicates that suitable personal and environmental factors significantly influence entrepreneurial performance, as perceived by entrepreneurs (Omerzel Gomezelj & Kušce, 2013). Therefore, authors propose hypothesis 4 and 5, H1: Personal factors have an impact on entrepreneurial performance, and H1: Environmental factors have an impact on entrepreneurial performance. In addition to examining the direct relationship between personal and environmental factors on entrepreneurial performance, this study also investigates the indirect relationship between personal and environmental factors and entrepreneurial performance, using experience characteristics as a mediator. The study indicates a significant relationship between environmental factors that influence entrepreneurial performance through experiential characteristics (Shao et al. 2024). Therefore, authors propose hypothesis 6, H1: Personal factors have an impact on entrepreneurial performance through experience characteristics. Environmental factors significantly influence entrepreneurial performance through experiential characteristics by shaping an individual's attitude, intention, and subsequent actions (Ragmoun, 2024). Therefore, authors propose hypothesis 7, H1: Environmental factors have an impact on entrepreneurial performance through experience characteristics.

This research involved the collection of data regarding the integration of personal and start-ups environmental factors across various regions of Indonesia, along with information on experience characteristics and entrepreneurial performance. The database utilized from diverse regions is regarded as a representation of the current reality. The framework of this research, as shown in Figure 1.

RESULTS

Respondent Characteristics

Start-ups are new businesses with a focus on technology and innovation (Krejcí et al. 2015). This study covers a wide range of business sectors within start-ups, such as creative agencies, education technology, craft, interior design, internet service provider, fashion (online clothing), human resource assessment, food and beverage, health, information technology telematics, digital marketing consultant, music, lifestyle entertainment, manufacturing, advertising, skincare, import-export trade, digital platform, petrol station, retail, online syariah business campus, and software developer.

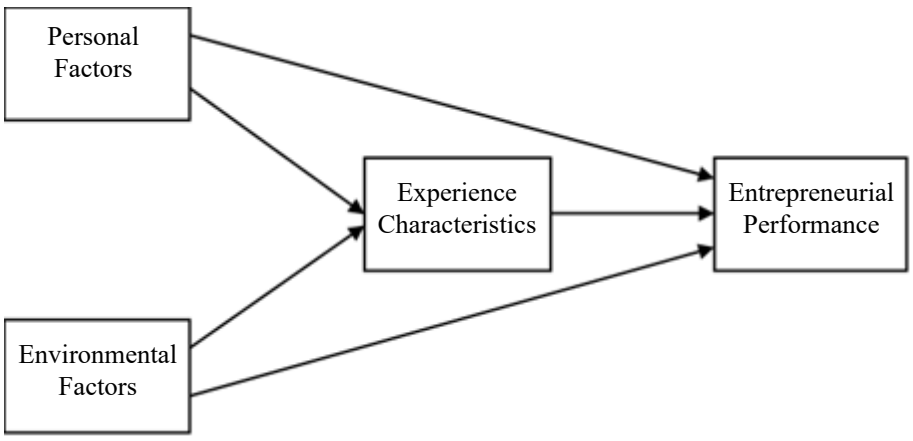

Figure 1. Research framework

The majority of respondents are located in West Java, encompassing the cities and regencies of Bandung, Cimahi, Garut, Sumedang, Bogor, Depok, Tasikmalaya, and Majalengka. In addition, the residences of other respondents are located in Jakarta, East Java (Surabaya, Sidoarjo, Malang, Pasuruan, and Lamongan), and Central Java (Yogyakarta and Semarang). The majority of responding start-ups are 40-50 years old, with most having been in operation for 2-3 years or 3-4 years. Currently, most start-ups utilize mobile application technology. The description of the start-up respondents is displayed in Table 1.

Most respondents indicated that a dynamic environment generates significant opportunities, and adopting a strategic orientation to pursue these opportunities can improve entrepreneurial performance.

SEM-PLS Analysis

Outer **Model (Measurement Model Evaluation)**

Ghozali (2016) states that the objective of evaluating the outer model is to evaluate its validity using convergent validity and discriminant validity, and to assess its reliability using composite reliability and Cronbach's alpha for its indicator blocks. The assessment of convergent validity is analysed for each construct indicator. According to Chin (2015), we consider an indicator valid if its value exceeds 0.70 and consider a loading factor ranging from 0.50 to 0.60 as adequate. In the meantime, the model can exclude standardized factor loading values below 0.5. Figure 2 indicates that the loading factor values for all indicators exceed 0.7. This study looked at every construct indicator that has a strong correlation with one another.

The Average Variance Extracted (AVE) is the metric that the measurement model uses to determine its validity. Rahadi (2015) states that in order to demonstrate proper convergent validity, the AVE validity test value must be more than 0.5. This study's results also indicate that the AVE value is greater than 0.50, which means that all of the indicators in this study meet the defined requirements and demonstrate potential reliability for further testing.

The final step in evaluating the outer model is to test its reliability to eliminate any measurement-related issues. Reliability testing employs composite reliability and Cronbach's alpha as indicators. The assessment of composite reliability and Cronbach's alpha seeks to evaluate the reliability of the instruments within a research model. The composite reliability scale ranges from 0 to 1, with higher values signifying better levels of reliability. In exploratory research, composite reliability scores of 0.60 to 0.70 are acceptable, although values between 0.70 and 0.90 can be considered satisfactory (Hair et al. 2017). If all the values of the latent variables show composite reliability or Cronbach's alpha values of 0.70 or higher, this means that the construct has good reliability, which means that the questionnaire used in this study is consistent. Cronbach's alpha and composite reliability values from this research are shown in Table 2.

The results shown in Table 2 for the Composite Reliability and Cronbach's Alpha tests are satisfactory, confirming the reliability of all latent variables. This is because all of the latent variables have Composite Reliability and Cronbach's Alpha values of at least 0.70. The findings indicate that the questionnaire employed as a research instrument in this study demonstrates reliability and consistency.

Table 1. Description of Respondents

Description	Amount	Percentage (%)
Gender		
Men	79	29.48
Women	189	70.52
Age		
<20 years old	9	3.15
>21-30 years old	40	13.98
>30-40 years old	73	25.52
>40-50 years old	122	42.66
>50 years old	42	14.69
How long have you been running the start-up business?		
< 1 year	19	7.09
>1-3 year	90	33.59
>3-5 year	84	31.34
>5-7 year	29	10.82
>7-9 year	16	5.98
>9-10 year	10	3.73
>10-15 year	12	4.48
>15 year	8	2.99

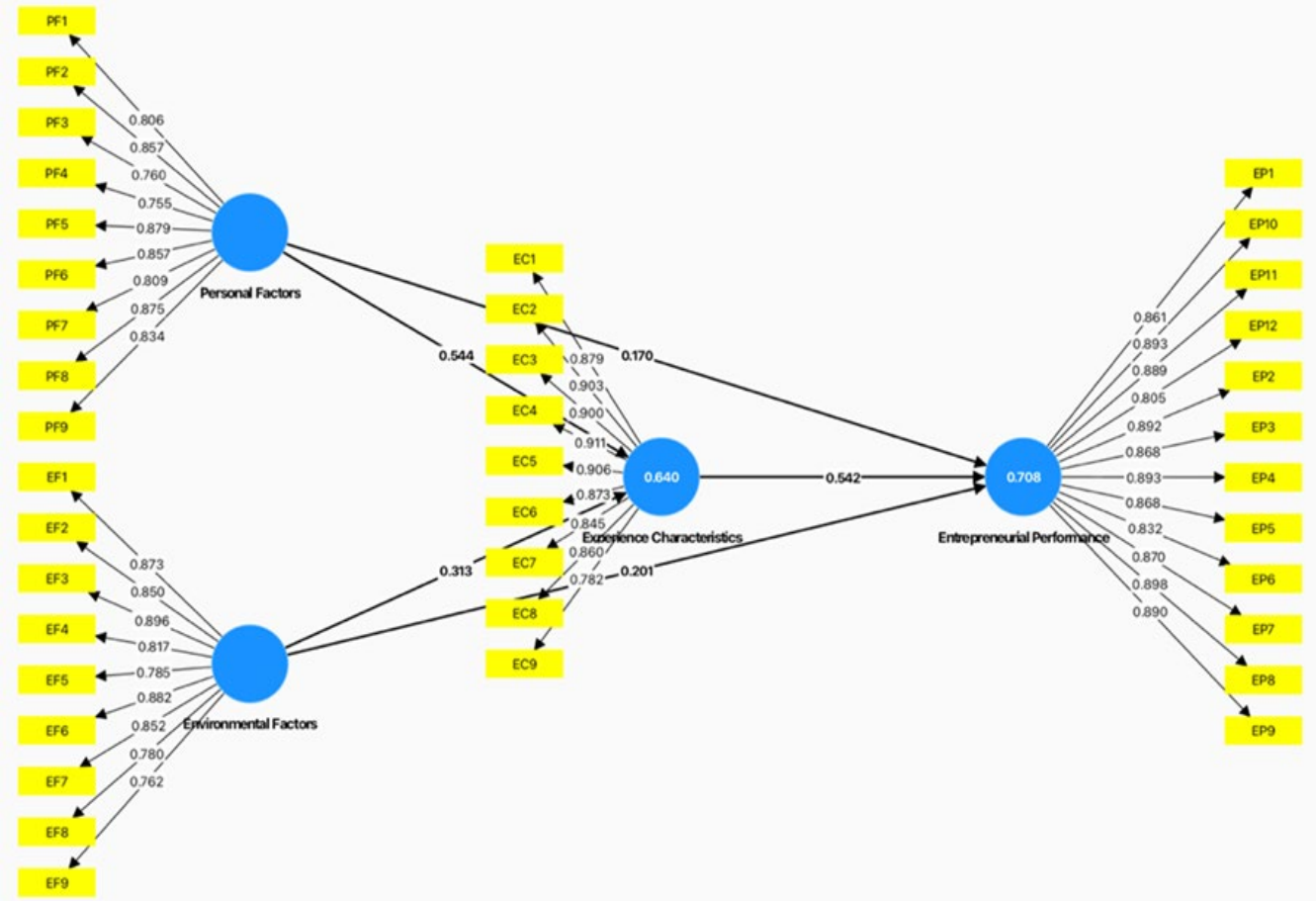

Figure 2. Result of loading factor in smartPLS 4

Table 2. Result of Composite Reliability and Cronbach's Alpha Testing

Construct	Composite Reability	Average Variance Extracted (AVE)	Cronbach Alpha
PF	0.962	0.764	0.942
EF	0.947	0.696	0.945
EC	0.973	0.760	0.961
EP	0.951	0.684	0.971

Note: Personal factors (PF); experience characteristics (EC); Environmental factors (EF); entrepreneurial performance (EP)

Inner Model Evaluation

After the estimated model meets the outer model criteria, the next step is to conduct the structural model (inner model) testing. This stage includes R-square (R^2), f-square (f^2), q-square (Q^2) values, and hypothesis testing results.

R-Square Value

The R-Square value serves as the Goodness of Fit test for the model. The R^2 value for EC is 0.640, indicating that 64% of the variability in the EC variable is explained by the employed model. The R^2 value for the EP variable is 0.708, indicating that 70.8% of the variability in the EP variable is accounted for by the model.

f^2 Effect Size

The f-square (f^2) value indicates the significance of the partial effect of each predictor variable on the endogenous variable. Ghozali (2016) provides an interpretation of the f-square value. If the f^2 value is ≥ 0.35, it indicates that the latent variable predictor exerts a strong influence; if the f^2 value is between 0.15 and 0.35, it indicates a medium influence; if the f^2 value ranges from 0.02 to 0.15, it indicates a weak influence.

The f^2 value indicating the influence of PF on EC is 0.395, and EC on EP is 0.363. This value is ≥ 0.35, indicating a strong influence of PF on EC and EC on EP in this model. The contribution of PF to the variability of EC and EC to the variability of EP in this model is significant and robust. Whereas the f^2 value indicating the effect of EF on EC is 0.131, it can be inferred that the effect of EF on EC is minimal, and the influence of EF on EC is notable. However, its effect in this model is relatively small. Furthermore, the f^2 value indicating the effect of PF on EP is 0.034, and EF on EP is 0.059. This value is categorized as weak influence, suggesting that while the influence of PF on EP and EF on EP is significant, its effect is comparatively minor in this model.

Goodness of Fit Model (Q-Square)

The predictive relevance (Q^2) value is used to evaluate the Goodness of Fit Model for the inner model. The Q^2 value exceeding 0 indicates that the model for EC possesses strong predictive relevance. The Q^2 test results for EC indicate a Q^2 value of 0.477. model exhibits a Q^2 value of 0.477, indicating it accounts for approximately 47.7% of the variability in the EC variable, thereby demonstrating moderate predictive capability. Furthermore, the Q^2 value for EP is 0.515. The model exhibits a Q^2 value of 0.515, indicating that it accounts for approximately 51.5% of the variability in the EP variable, thereby demonstrating a robust predictive capability.

Hypothesis Testing Results

Hypothesis tests on structural relationships between constructs rely on measurement models to ensure reliability and validity (Hair et al. 2017). The significant value can be obtained through the bootstrapping procedure. To determine significance or insignificance, it is viewed from the t-table at alpha 0.05 (5%) = 1.96. Then the t-table is compared with the t-calculated (t-statistic). Results of hypothesis testing (direct, indirect, and total effect) are shown in Table 3.

The Impact of Personal Factors on Experience Characteristics

The test results indicate that PF significantly affects EC, with a coefficient of 0.544 and a t-statistic of 8.800. Therefore, personal factors significantly contributes to the enhancement of experience characteristics. In other term, hypothesis 1 is declared accepted. The results of this study align with the findings of Moya-Clemente et al. (2020), who found that personal factors significantly influence the characteristics of experiences. Good personal factors encourage people to gather relevant and high-quality experiences, which improves their capacity to successfully manage and expand a business. Respondents stated that entrepreneurial background, personal characteristics, and intention are variables that influence personal factors. The indicators of entrepreneurial background in this study are education, competence, and family. Cordero et al. (2023) conducted an examination that both entrepreneurial education and personal factors have a mutual influence on each other's development. Education can strengthen their entrepreneurial foundation, boost their confidence, and encourage them to pursue a career in entrepreneurship. This personal factor implies that economics education improves comprehension and skills important to entrepreneurship, increasing individuals' propensity to start their own businesses (Ilieș et al. 2023). Furthermore, improving skills through an entrepreneurial foundation, which includes human factors such as flexibility, resilience, and self-motivation (Mendoza et al. 2024; Zhang et al. 2023), improves individual company success while also contributing to societal and economic growth. Next, Nguyen et al. (2024) asserted that family influence serves as an indicator of personal factors. An entrepreneurial history based on familial company experience bolsters personal factors such as computer literacy and self-efficacy.

The Impact of Environmental Factors on Experience Characteristics

The relationship between EF and EC is characterized by a coefficient of 0.313 and a t-statistic of 5.434. Therefore, environmental factors significantly contributes to the enhancement of experience characteristics. In other term, hypothesis 2 is declared accepted. Therefore, this study aligns with the findings of Qigan et al. (2024), who found that environmental factors contribute considerably to entrepreneurial experience and characteristics by providing a supportive framework. Respondents stated that business characteristics, market strategy and demand are variables that influence environmental factors. The collaboration of environmental factors, company attributes, and age affects a start-up's loan accessibility. Start-ups should systematically assess their legal framework

in accordance with their developmental stage and the regional banking environment. Policymakers should evaluate the impact of legal frameworks on financial opportunities to foster entrepreneurial development (Fadholi, 2013).

The Impact of Experience Characteristics on Entrepreneurial performance

The test results show that the influence of EC on EP has a coefficient value of 0.542 with a t-statistic of 8.330. Given that the t-statistic exceeds the t-table value of 1.96 at a 5% significance level, it can be concluded that the effect of EC on EP is statistically significant. In other term, hypothesis 3 is declared accepted. This suggests that EC has a positive and significant impact on EP. Therefore, experience characteristics significantly contributes to the enhancement of entrepreneurial performance. In other term, hypothesis 3 is declared accepted. The results of this study align with the findings of Ragmoun et al. (2024), which suggest that experience characteristics consist of interconnected elements that create a framework that enhances entrepreneurial performance. Respondents stated that work, technological, and entrepreneurship experiences are variables that influence experience characteristics. Previous work or business experience can be considered an internal factor contributing to the success of entrepreneurial performance.

The Impact of Personal Factors on Entrepreneurial performance

The influence of PF on EP has a coefficient of 0.170 with a t-statistic of 3.208. The value surpasses the t-table threshold of 1.96 and indicating that PF has a positive and significant effect on EP. However, its influence is relatively smaller compared to other paths. Therefore, personal factors significantly contributes to the enhancement of entrepreneurial performance. In other term, hypothesis 4 is declared accepted. In line with what (Yu et al. 2024) found, personal factors, such as feasibility and desirability, exert favorable influences on entrepreneurial performance. Understanding the interaction of personal factors can aid in developing targeted strategies to support emerging entrepreneurs, improve their psychological capital, and promote their entrepreneurial performance (Wang et al. 2022).

The Impact of Environmental Factors on Entrepreneurial performance

EF has an influence coefficient of 0.201 on EP and a t-statistic of 3.695. The t-statistic value surpasses the t-table threshold of 1.96 and indicating that EF exerts a positive and significant influence on EP. EF directly enhances EP, albeit with a comparatively smaller coefficient relative to other pathways. Therefore, environmental factors significantly contributes to the enhancement of entrepreneurial performance. In other term, hypothesis 5 is declared accepted. In line with what (Zhuge et al. 2023) found, these results show how market strategy and technological changes can affect entrepreneurial performance. They also show how important it is for entrepreneurs to adapt and use their resources together. Navigating environmental factors, including market uncertainty, perceived risks, and competitive dynamics, impacts entrepreneurial performance in start-ups. In order to thrive in a market where institutions are uncertain, it is crucial to innovate effectively and leverage your marketing skills to your advantage (Rubio-Andrés et al. 2024).

Table 3. Results of Hypothesis Testing (Direct, Indirect, and Total Effect)

Hypothesis	Direct (P-value)	Indirect	Total	T-Value	Result
PF → EC	0.544 (0.000)			8.800	Significant
EF → EC	0.313 (0.000)			5.434	Significant
EC → EP	0.542 (0.000)		0.542	8.330	Significant
PF → EP	0.170 (0.001)		0.465	3.208	Significant
EF → EP	0.201 (0.000)		0.371	3.695	Significant
PF → EC → EP		0.295 (0.000)		5.498	Significant
EF → EC → EP		0.170 (0.000)		4.848	Significant

Note: Personal factors (PF); experience characteristics (EC); Environmental factors (EF); entrepreneurial performance (EP)

The Impact of Personal Factors through Experience Characteristics on Entrepreneurial performance

The coefficient for the indirect effect of PF on EP via EC is 0.295, accompanied by a t-statistic of 5.498. The t-statistic exceeds the t-table value of 1.96, accompanied by a minimal p-value of 0.000, signifying that the indirect effect of PF on EP through EC is significant. As a mediating variable, EC shows that PF has a big effect on EP, showing a stronger effect than other pathways. Therefore, personal factors, through experience characteristics, significantly contributes to the enhancement on entrepreneurial performance. In other term, hypothesis 6 is declared accepted. This research is consistent with the previous study, indicating that there is a significant relationship between the personal factor, which influences experience characteristic, and entrepreneurial performance (Shen et al. 2021). Positive personal attributes facilitate the acquisition of pertinent and high-quality experiences, which directly relate to an individual's ability to manage and expand a business. The experience gained enhances organizational performance and success while simultaneously advancing individual competencies.

The Impact of Environmental Factors through Experience Characteristics on Entrepreneurial performance

The test results indicate that the indirect effect of EF on EP via EC has a coefficient of 0.170 and a t-statistic of 4.848. The t-statistic value exceeds the t-table threshold of 1.96, and the p-value is notably low at 0.000, indicating that the indirect effect of EF on EP through EC is significant. The evidence suggests that EF substantially influences EP, with EC as a mediating variable. Therefore, environmental factors, through experience characteristics, significantly contributes to the enhancement on entrepreneurial performance. In other term, hypothesis 7 is declared accepted. This research is consistent with the previous study (Shen et al. 2021), indicating that there are a significant relationship between the environmental factor, which influences experience characteristic, and entrepreneurial performance. It is essential for governments and politicians to prioritize improving the environmental conditions for entrepreneurship, to maximize its business performance rates. This entails investments in infrastructure and resource management, alongside the development of a conducive business environment. These measures foster economic growth while ensuring sustainability and equity in entrepreneurship.

The path coefficient value, or the direct influence of PF-EP, is 0.170, while the indirect influence and total effect of PF-EC-EP are 0.295 and 0.465. Therefore, experience characteristics as a mediator enhance the influence of personal factors on entrepreneurial factors. Meanwhile, the path coefficient value or the direct effect EF-EP is 0.201, while the indirect effect and total effect EF-EC-EP are 0.170 and 0.371. Therefore, experience characteristics as a mediator reduce the influence of environmental factors on entrepreneurial factors.

Managerial Implication

The analysis can summarize the managerial implications based on respondent characteristics and SEM-PLS results (Andrini et al. 2024). This research yields implications in two distinct areas: theoretical and practical. The empirical findings from this research offer implications for management, business, and entrepreneurship. The theoretical implications generated revolve around advancing scientific knowledge in entrepreneurship and emphasising the necessity of collaboration among academics, research institutions, and business incubators to formulate relevant and applicable theories of entrepreneurial performance for Indonesian start-ups. The practical managerial implication is improving the support system to help different groups, like entrepreneurs, especially start-ups, universities, government, and investors, work together, creating a better environment for entrepreneurs. Human resource development represents an investment in training to enhance entrepreneurial performance and foster technological innovation. This approach seeks to improve workforce quality and stimulate start-ups growth, ultimately augmenting their economic contributions. Governments and politicians also must prioritise improving personal and environmental factors, in order to maximize entrepreneurial performance rates. This strategy involves investment in infrastructure and resource management and creating a conducive entrepreneurial environment. These insights can assist the government in effectively administering multiple aspects of the entrepreneurial ecosystem to encourage economic growth while maintaining sustainability and equity in entrepreneurship.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research indicates that all hypotheses regarding direct relationships between personal and environmental variables, experience characteristics, and entrepreneurial performance are significant. The study's result highlights that personal and environmental factors significantly enhance entrepreneurial performance through experience characteristics as a mediating factor. This study evaluated how experience characteristics as a mediator strengthen the impact of personal factors on entrepreneurial performance and weaken the impact of environmental factors on entrepreneurial performance. The research indicates that Indonesian start-ups should prioritize enhancing their personal aspects, including entrepreneurial education, competencies, motivation, and the will to enhance entrepreneurial performance. Furthermore, it is advisable to optimize environmental factors by establishing a dynamic entrepreneurial ecosystem, improving marketing strategies, and aligning them with global market demands. By implementing these strategies, Indonesian start-ups can improve their overall entrepreneurial performance and better leverage their resources for business growth and innovation.

Recommendations

Based on the realities faced by Indonesian start-ups and the findings of this study, the following tailored recommendations for future research are proposed: longitudinal studies on start-up development stages. Conducting longitudinal research that tracks start-ups over multiple years in Indonesia can reveal how personal and environmental factors, influenced by experiential characteristics, evolve and impact entrepreneurial performance during various growth phases, while also addressing resource limitations and market uncertainties. Further research could provide a methodological triangulation approach. It is recommended that quantitative and qualitative methods, such as extensive surveys to measure the relationships between variables and in-depth interviews or case studies, be combined to understand the dynamics of start-up experiences contextually. This approach will provide a more comprehensive picture of the factors influencing entrepreneurial performance in Indonesia. Researchers also recommend that start-ups in Indonesia maximize personal factors, such as entrepreneurial education, competence, motivation, and the intention to improve entrepreneurial performance. By systematically and comprehensively implementing these recommendations, future research is expected to provide more concrete, practical, and scientific benefits, address the challenges and needs of start-ups in Indonesia, and achieve entrepreneurial performance.

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