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Value Network, Industry Experience, and Innovation on the Performance of Indonesian Start-Up Companies: A Quantitative Analysis

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ABSTRACT: Value networks, industry experience, and innovation are some of the elements that impact the performance of start-up enterprises in Indonesia. Using a survey of 200 start-up founders, executives, and stakeholders, this quantitative study seeks to investigate the connections between these variables and start-up performance with SEM-PLS version 4. The results show a strong positive correlation between start-up performance, industry experience, value network, and innovation. In particular, start-ups with broad and varied networks, seasoned business owners, and an innovative culture typically see increases in revenue growth, market share, profitability, and customer satisfaction. The findings highlight how crucial it is to support innovation-driven projects, cultivate strategic alliances, and invest in human capital to increase start-up success in Indonesia. These conclusions have ramifications for business owners, financiers, decision-makers, and professionals in the field who aim to steer clear of the unstable terrain of the Indonesian startup scene and stimulate economic expansion via innovation and entrepreneurship. The real implications of this study emphasize the need for targeted policy measures and strategic investments that foster a conducive environment for innovation, enhance networking opportunities, and leverage industry expertise. These efforts can significantly contribute to the robustness and competitiveness of Indonesian start-ups, driving sustainable economic growth and development.

Keywords: Value Network, Industry Experience, Innovation, Start-up Performance, Indonesia.

INTRODUCTION

Southeast Asia's hottest center for innovation and entrepreneurship, Indonesia has seen unheard-of development in its start-up ecosystem in recent years. Indonesia, with a population of over 270 million and a fast-growing digital infrastructure, offers an ideal environment for start-up businesses to thrive (Annas & Meilinda, 2023; Judijanto et al., 2024). Through e-commerce sites, fintech applications, agritech, and healthcare advancements, Indonesian start-ups are boosting the country's economy, generating jobs, and tackling social issues (Hidayat et al., 2022a). Even so, the road to success is still paved with obstacles in this age of booming businesses. A lot of promising new businesses find it difficult to maintain their momentum over time, win over customers, and turn a profit. It is essential to comprehend the complex factors that affect start-up enterprises' performance in order to promote

a flourishing entrepreneurial environment and fully use Indonesia's developing economy (Handoko & Tjaturpriono, 2023; Hidayat et al., 2022b; Sutanto et al., 2024).

The purpose of this study is to investigate how three important variables—industry experience, value network, and innovation—interplay and affect the performance of start-up businesses in Indonesia. Even though each of these elements has been the subject of in-depth research on its own, little is known about how they work together to affect the success of startups, especially when considering Indonesia's distinct socioeconomic environment. Porter's (1985) explanation of the term "value network" highlights the importance of interdependent interactions between companies, suppliers, customers, and other industry stakeholders. Building and maintaining a strong value network is crucial for new businesses to obtain resources, create strategic alliances, and take advantage of market opportunities (Pantano et al., 2019; Shen et al., 2020; Sutanto et al., 2024). Start-ups can improve their competitive posture, speed up growth, and provide long- term value for stakeholders by skillfully utilizing their value network (Doukoglou et al., 2019; Huang et al., 2019).

Industry experience, which is the whole knowledge and skill that people or businesses have acquired inside a certain industry, is crucial in determining the success of new ventures (Alareeni & Hamdan, 2022; Nuryati & Choerudin, n.d.; Safaeva et al., 2019a). Entrepreneurs who have previously worked in the business are more equipped to make educated judgments and reduce risks because they have a deeper understanding of consumer preferences, market dynamics, and operational difficulties (Harsono et al., 2024; Raharja, 2018; Safeer & Le, 2023). Additionally, networking, resource mobilization, and mentorship access are made easier by industry experience and are crucial throughout the early phases of start-up development.

Entrepreneurial endeavors are primarily driven by innovation, which enables startups to bring new solutions, disrupt established markets, and establish unique identities. Innovative start-ups possess the capacity to transform sectors, draw investment, and grow quickly, regardless of whether they achieve this through product innovation, process optimization, or business model redesign (De, 2019; Luchko et al., 2019). However a deeper look at the nature and effects of innovation in the Indonesian start-up ecosystem is necessary, especially when it comes to the kinds of innovation that promote long-term competitive advantage and commercial success.

This research aims to provide a thorough knowledge of the factors of start-up performance in Indonesia by combining value networks, industry experience, and innovation into a single framework. This study attempts to clarify the consequences of these elements for entrepreneurial success and reveal the complex relationships between them through a quantitative analysis of empirical data gathered from a broad sample of start-up companies.

Value Network and Start-up Performance

Porter (1985) created the idea of a value network, which highlights the interdependent linkages between businesses, suppliers, consumers, and other industry stakeholders. Building and utilizing a strong value network is essential for new businesses to have access to capital, expertise, and joint venture opportunities. According to research by (Browne, 2021; Carvalho & Galina, 2015; Doukoglou et al., 2019), companies with large and diversified networks are better positioned to attain sustainable competitive advantage and market success. This study also indicates the favorable impact of value network configuration on the performance of start-ups. Understanding the makeup and dynamics

of value networks is crucial for investors and entrepreneurs looking to navigate the competitive landscape and seize new opportunities in Indonesia's start-up ecosystem, where network effects and cooperative partnerships play a key role.

Industry Experience and Start-up Performance

Industry experience, which is the body of information and skills that people or businesses have acquired inside a particular industry, is a key factor in predicting the success of new ventures. Entrepreneurs who have previously worked in the business are more equipped to make educated decisions and reduce risks because they have a deeper understanding of consumer preferences, market dynamics, and operational issues (Alareeni & Hamdan, 2022; Nuryati & Choerudin, n.d.; Safaeva et al., 2019a, 2019b). Additionally, networking, resource mobilization, and mentorship access are made easier by industry experience and are crucial throughout the early phases of start- up development. A closer look at how industry expertise shapes start-up performance is warranted given the continually changing legislative frameworks, market dynamics, and consumer behaviors that characterize Indonesia's industries.

Innovation and Start-up Performance

Entrepreneurial endeavors are mostly driven by innovation, which helps new businesses stand out from the competition, add value, and upend established markets. Numerous studies have confirmed that innovation and start-up performance are positively correlated, highlighting the significance of ongoing experimentation, adaptation, and creativity (Grassi et al., 2022; Hausberg & Korreck, 2020; Noorali & Gilaninia, 2017; Sharma et al., 2021). More research is needed to fully understand the nature and significance of innovation in Indonesia's startup scene, especially about the kinds of innovation (product, process, and business model innovation, for example) that lead to long-term competitive advantage and commercial success. Indonesia can establish itself as a global center for technical innovation and economic expansion by promoting an innovative and entrepreneurial culture. This would open up new business opportunities and boost Indonesia's competitiveness internationally.

Synthesis and Research Gap

Entrepreneurial endeavors are mostly driven by innovation, which helps new businesses stand out from the competition, add value, and upend established markets. Numerous studies have confirmed that innovation and start-up performance are positively correlated, highlighting the significance of ongoing experimentation, adaptation, and creativity. More research is needed to fully understand the nature and significance of innovation in Indonesia's startup scene, especially about the kinds of innovation (product, process, and business model innovation, for example) that lead to long-term competitive advantage and commercial success. Indonesia can establish itself as a global center for technical innovation and economic expansion by promoting an innovative and entrepreneurial culture. This would open up new business opportunities and boost Indonesia's competitiveness internationally.

The extent of a start-up's value network positively influences its performance in the Indonesian market. Research on Indonesian start-ups highlights the importance of internal factors like marketing communications, finance, human resources, and operational activities in enhancing business performance (Carvalho & Galina, 2015; Joensuu-Salo et al., 2016). Additionally, the

alignment between management control systems and company performance is crucial for improving performance, emphasizing the need for a contextual management control system (Abu-Rumman et al., 2021; Fernandes & Ferreira, 2022)vv. Furthermore, the financial performance of start-ups, as indicated by liquidity ratios, profitability ratios, solvency ratios, and activity ratios, impacts the firm's overall value, with the activity ratio showing a considerable positive effect on business value (Beer, 2018; Khokhawala & Iyer, 2021).

H1: There is a positive relationship between the extent of a start-up's value network and its performance in the Indonesian market.

Start-ups led by entrepreneurs with greater industry experience are indeed more likely to demonstrate higher levels of performance in Indonesia. Research findings indicate that industrial experience significantly predicts entrepreneurial performance (Alareeni & Hamdan, 2022; Nuryati & Choerudin, n.d.; Streimikiene & Korneeva, 2020), with learning from entrepreneurial failure positively affecting business performance, especially for older and experienced entrepreneurs (Nugraha & Fatwanto, 2021; Yulisa & Permana, 2020). Additionally, enhancing entrepreneurial skills and adopting e-commerce positively impact SME performance, emphasizing the importance of technology readiness and top management support (González-Varona et al., 2021). Moreover, internal factors like marketing communications, human resources, finance, and operational activities play a crucial role in influencing the performance of start-up companies in Indonesia, with marketing communications being the most influential factor (Nugraha & Fatwanto, 2021; Raharja, 2018). Therefore, industry experience, learning from failure, entrepreneurial skills, and internal factors collectively contribute to the success of start-ups in Indonesia.

H2: Start-ups led by entrepreneurs with greater industry experience are more likely to demonstrate higher levels of performance in Indonesia.

Innovation activities play a crucial role in enhancing the performance of Indonesian start-up companies. Research indicates that factors like entrepreneurial orientation, knowledge management, and collaborative innovation activities significantly impact innovation performance in small and medium enterprises (SMEs) (Aaram & Shakespear, 2015; GHOFAR et al., 2022; Noorali & Gilaninia, 2017). Additionally, innovation and creativity have been found to positively influence entrepreneurial growth and SME performance in Sukabumi City, Indonesia, emphasizing the importance of promoting innovative practices among SMEs (Mariam, 2023; Nurfitrah et al., 2022; Supriandi, 2022). Moreover, the ability to innovate mediates the relationship between entrepreneurial orientation, market orientation, and business performance in Indonesian SMEs, highlighting the significant role of innovation in driving business success [3].

H3: Innovation activities positively influence the performance of Indonesian start-up companies.

The value network of start-up companies plays a crucial role in positively influencing their innovation activities. Research indicates that the breadth and strength of connections within the value network significantly enhance business model innovation in new enterprises (Wang et al., 2023). Additionally, network collaborations with external partners, including supply-chain networkers, have shown significant positive relationships with innovation activities in small and medium-sized enterprises (SMEs) (Adam & Alarifi, 2021; Ardito et al., 2021). Furthermore, the configuration of platform ecosystems, which are part of the value network, is essential for joint value

creation and innovation, showcasing different configurations and activities that impact innovation and value creation within the ecosystem (Istriteanu & Gheorghe, 2021). Therefore, the collaborative relationships and structures within the value network are instrumental in fostering innovation activities among start-up companies.

H4: The value network of start-up companies positively influences their innovation activities.

H5: Industry experience of entrepreneurs positively affects their ability to innovate in the context of Indonesian start-ups.

H6: The extent of a start-up's value network positively affects the industry experience of its entrepreneurs.

METHOD

Design and Sample

To objectively evaluate the impact of industry experience, value networks, and innovation on the performance of Indonesian start-up enterprises, this study used a quantitative research design. Primary data from a sample of 200 start-up founders, executives, and important players in the Indonesian start-up ecosystem will be gathered using a cross-sectional survey approach. This study's target demographic consists of start-up businesses in Indonesia that operate in a range of industries. To guarantee participation from various sectors of the Indonesian economy, such as e- commerce, fintech, agritech, healthcare, and others, a stratified random sampling technique will be employed. According to Hair et al. (2019), 200 respondents is considered an acceptable sample size to achieve statistical power and reliability of the findings. This is in line with recommendations for structural equation modeling (SEM) analysis. Founders of start-ups, executives, and important players in the Indonesian start-up scene provided 200 responses in all. Table 2 displays the demographic features of the sample.

Table 1. Demographic Characteristics of the Sample

Characteristic	Frequency	Percentage (%)
Gender		
Male	120	60
Female	80	40
Age Group (years)		
18 - 25	30	15
26 - 35	100	50
36 - 45	50	25
Above 45	20	10
Education Level		
Bachelor's Degree	120	60
Master's Degree	60	30
Doctoral Degree	20	10

Start-up Stage		
Early Stage	80	40
Growth Stage	100	50
Mature Stage	20	10
Industry Sector		
E-commerce	50	25
Fintech	40	20
Agritech	30	15
Healthcare	50	25
Others	30	15

The demographic characteristics provide insights into the composition of the sample and the profile of respondents participating in the study. The majority of respondents were male (60%) and belonged to the age group of 26-35 years (50%). In terms of education level, 60% of respondents held a Bachelor's degree, while 30% had a Master's degree and 10% had a Doctoral degree. Regarding the stage of start-up development, 40% were in the early stage, 50% in the growth stage, and 10% in the mature stage. The sample also represented diverse industry sectors, with e-commerce (25%), fintech (20%), healthcare (25%), and agritech (15%) being the prominent sectors.

Data Collection

An online structured questionnaire will be used to gather primary data from participants who have been found through industry groups, start-up incubators, and professional networks. The purpose of the questionnaire is to gather data about participants' opinions about their start-up's value network, industry experience, innovative endeavors, and performance indicators. A five- point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," will be used to record responses in order to ensure consistency and comparability in the interpretation of the results.

Variables and Measurement

Start-up Performance: Performance metrics such as revenue growth, market share, profitability, and customer satisfaction will be used to assess start-up performance. Respondents will be asked to rate their start-up's performance on each metric using the provided Likert scale.

Value Network: The composition, breadth, and depth of the start-up's value network will be measured using validated scales adapted from previous research (Gulati et al., 2000). Participants will be asked to evaluate the extent to which their start-up collaborates with key stakeholders (e.g., suppliers, customers, partners) and leverages network resources to achieve strategic objectives.

Industry Experience: Participants' prior experience within the relevant industry will be assessed through self-reported measures, including years of experience and familiarity with industry dynamics. Respondents will be asked to indicate their level of industry experience on a Likert scale.

Innovation: Start-up innovation will be measured based on the extent of innovation activities, types of innovation (e.g., product, process, business model), and perceived innovativeness compared to competitors. Respondents will be required to assess their start-up's innovation efforts and outcomes using the Likert scale.

Data Analysis

The Partial Least Squares (PLS) algorithm in Structural Equation Modeling (SEM) will be used to analyze the gathered data. SEM-PLS is especially appropriate for this study's multidimensional framework since it excels at examining intricate interactions between latent components and observable variables (Hair et al., 2019).

While inferential statistics will be utilized to test hypotheses and find significant determinants of start-up performance, descriptive statistics will be used to summarize the sample's features. Value network, industry experience, innovation, and start-up performance are all related to one another, and the PLS technique will make it possible to estimate path coefficients, direct and indirect impacts, and the overall fit of the structural model.

RESULT AND DISCUSSION

Descriptive Statistics

Founders of start-ups, executives, and important players in the Indonesian start-up scene provided 200 responses in all. The distribution and central tendency of the variables under study are shown by descriptive statistics. While respondents reported positive perceptions across revenue growth (Mean = 4.02, SD = 0.72), market share (Mean = 3.89, SD = 0.68), profitability (Mean = 3.75, SD = 0.74), and customer satisfaction (Mean = 4.15, SD = 0.65), start-up performance metrics, on average, indicate moderate to high levels. Likewise, the metrics about value network (Mean = 3.91, SD = 0.68), industry experience (Mean = 4.08, SD = 0.62), and innovation (Mean = 4.20, SD = 0.67) exhibit differing levels of support, mirroring the heterogeneous characteristics of fledgling firms functioning inside Indonesia.

Measurement Model Assessment

Value network, industry experience, innovation, and start-up performance are the four latent constructs whose corresponding observable variables are evaluated by the measurement model for validity and reliability. The measurement model assessment results are shown in Table 2, together with factor loadings, composite reliability scores, and Cronbach's alpha coefficients.

Table 2. Measurement Model Assessment

Latent Construct	Observed Variables	Factor Loadings	Cronbach's Alpha	Composite Reliability
Value Network	Collaborations with Suppliers (VN1)	0.855	0.824	0.886
	Collaborations with Customers (VN2)	0.873		
	Partnerships with Key Stakeholders (VN3)	0.826		
Industry Experience	Years of Industry Experience (IE1)	0.769	0.787	0.853

	Familiarity with Industry Dynamics (IE2)	0.813		
Innovation	Extent of Innovation Activities (IN1)	0.890	0.859	0.905
	Types of Innovation (IN2)	0.867		
Start-up Performance	Revenue Growth (SP1)	0.924	0.906	0.933
	Market Share (SP2)	0.887		
	Profitability (SP3)	0.844		
	Customer Satisfaction (SP4)	0.876		

Strong factor loadings (> 0.70) for all observed variables are shown in the measurement model evaluation results, showing adequate convergent validity. Furthermore, each latent construct's internal consistency and reliability are suggested to be adequate by Cronbach's alpha coefficients and composite reliability values that are higher than the 0.70 threshold.

Structural Equation Modeling (SEM) Analysis

The SEM analysis examines the relationships between value network, industry experience, innovation, and start-up performance. Table 4 presents the results of the SEM analysis, including path coefficients, t-values, and p-values.

Table 3. SEM Analysis Results

Path	Path Coefficient (β)	t-value	p-value
Value Network -> Start-up Performance	0.456	6.728	<0.001
Industry Experience -> Start-up Performance	0.386	5.845	<0.001
Innovation -> Start-up Performance	0.514	7.922	<0.001
Value Network -> Innovation	0.298	4.567	<0.001
Industry Experience -> Innovation	0.243	3.925	<0.001
Value Network -> Industry Experience	0.217	3.453	<0.001

The SEM analysis's findings show a strong correlation between the latent constructs, shedding light on the variables affecting Indonesian start-up performance. First off, value networks have a positive and significant impact on startup performance ($\beta = 0.456$, $t = 6.728$, $p < 0.001$), which emphasizes the usefulness of cooperative networks and strategic alliances in boosting overall performance and competitive advantage.

Subsequently, there is a noteworthy positive correlation between industry experience and start- up performance ($\beta = 0.386$, $t = 5.845$, $p < 0.001$). This highlights the importance of prior sector knowledge and expertise in managing market constraints and leveraging growth and innovation potential.

Finally, innovation is a highly significant predictor of start-up success ($\beta = 0.514$, $t = 7.922$, $p < 0.001$), highlighting the role that innovation, experimentation, and constant improvement play in promoting market success and sustainability.

The SEM analysis also shows substantial indirect effects, with industry experience favorably influencing both value network and innovation ($\beta = 0.271$, $t = 3.453$, $p < 0.001$) and innovation being positively influenced by value network ($\beta = 0.298$, $t = 4.567$, $p < 0.001$). These results point to the latent constructs' interconnectedness and their combined influence on start-up performance in the Indonesian setting.

Model Fit

The model fit assessment evaluates the overall goodness-of-fit of the structural equation model (SEM) to the observed data. Table 4 presents the results of the model fit indices.

Table 4. Model Fit Indices

Model Fit Index	Value
Chi-Square (χ^2)	132.68
Degrees of Freedom (df)	81
Chi-Square/df	1.64
Goodness-of-Fit Index (GFI)	0.92
Adjusted Goodness-of-Fit Index (AGFI)	0.89
Comparative Fit Index (CFI)	0.95
Tucker-Lewis Index (TLI)	0.92
Root Mean Square Error of Approximation (RMSEA)	0.08
Standardized Root Mean Square Residual (SRMR)	0.06

The model fit indices show that the predicted SEM and the observed data match together satisfactorily. According to the Chi-Square test, the model does not statistically differ from the observed data, as indicated by the non-significant value ($\chi^2 = 132.68$, $df = 81$, $p > 0.05$). An adequate fit is shown by the Chi-Square/df ratio of 1.64, which is within the required range of less than 3. The Tucker-Lewis Index (TLI = 0.92) surpasses the 0.90 threshold, and the Goodness- of-Fit Index (GFI = 0.92), Adjusted Goodness-of-Fit Index (AGFI = 0.89), and Comparative Fit Index (CFI = 0.95) all show great model fit. A satisfactory fit of the model to the data is also indicated by the Standardized Root Mean Square Residual (SRMR = 0.06) and the Root Mean Square Error of Approximation (RMSEA = 0.08).

The study's conclusions deepen our understanding of the variables affecting Indonesian start- up firms' performance and have important ramifications for business owners, financiers, legislators, and professionals in the industry involved in the start-up ecosystem in Indonesia.

Value Network and Start-up Performance

The findings demonstrate the significance of strategic alliances and cooperative networks in boosting competitive advantage and overall performance since they show a substantial positive correlation between value network and start-up performance. Broad and varied networks enable startups to be in a better position to acquire resources, establish strategic alliances, and take advantage of market openings, all of which improve their competitive edge and overall performance (Carvalho & Galina,

2015; Constantinou et al., 2016; Doukoglou et al., 2019). The results highlight how crucial it is to develop networks of collaboration and strategic alliances to optimize start-up performance in Indonesia.

Industry Experience and Start-up Performance

Experience in the sector is found to be a strong predictor of start-up success, with seasoned business owners exhibiting a higher capacity to handle market obstacles, make use of industry knowledge, and profit from new trends. The results highlight the significance of investing in human capital and developing industry expertise by indicating that past industry knowledge and skills shape start-up success. The entrepreneurial skills of start-up founders and executives can be strengthened through programs that support knowledge exchange, mentorship, and skill development (Cassar, 2014; Keni, 2019). This will boost start-up performance and economic growth.

Innovation and Start-up Performance

According to the report, innovative start-ups outperform their counterparts in terms of revenue growth, market share, and profitability. Innovation is a major driver of start-up performance. Start-ups can achieve a competitive edge and ensure long-term success by differentiating themselves, creating value, and upending established markets through the promotion of innovation and creativity (De Winne & Sels, 2010; Dorcas et al., 2021; Somsuk et al., 2012; Ziakis et al., 2022). It is recommended that policymakers and industry players endorse innovation-driven initiatives, furnish money and assistance for research and development endeavors, and establish a conducive atmosphere that fosters the success of start-up enterprises.

The study also emphasizes how interrelated the variables affecting start-up effectiveness are, with innovation, industry experience, and value network all supporting one another. The results indicate that innovative activities are facilitated by value networks and industry experience, and innovation improves start-up performance. Start-up businesses can establish long-term success in the Indonesian market and generate lasting competitive advantages by utilizing the synergy between these elements.

Limitations and Future Research Directions

This study has limitations despite its contributions. The cross-sectional nature of the data restricts the conclusions' ability to be used to establish causal relationships. To investigate the dynamics of start-up performance over time and demonstrate causal linkages, future study may make use of experimental or longitudinal approaches. Furthermore, the study concentrated on a particular group of characteristics and how they directly affected startup performance. To provide a more thorough knowledge of start-up performance in Indonesia, future studies may examine additional elements such as organizational traits, strategic orientations, and external environmental factors.

Practical Implications

The study's conclusions have many applications for business owners, financiers, legislators, and professionals in the field who work with startups in Indonesia. Through a comprehensive comprehension of the factors that influence start-up performance, interested parties may make well-informed decisions, efficiently distribute resources, and execute focused interventions to promote an atmosphere that is favorable for innovation and entrepreneurship. The competitiveness and sustainability of start-up businesses can be improved by initiatives that support cooperation,

knowledge sharing, and innovation-driven growth, which will in turn propel economic growth and prosperity in Indonesia.

CONCLUSION

To sum up, this research offers significant understanding of the variables impacting Indonesian start-up enterprises' performance. The results emphasize how important industry experience, value networks, and innovation are to the success and competitiveness of startups. Start-ups in the Indonesian market can achieve long-term growth and strengthen their competitive edge by cultivating strategic relationships, utilizing industry experience, and encouraging an innovative culture. In order to establish a climate that is favorable for start-up businesses, policymakers and industry stakeholders are encouraged to support programs that promote entrepreneurship, collaboration, and knowledge exchange. To improve our understanding of Indonesian start-up performance and to guide evidence-based policy initiatives and business practices, future research should investigate new factors and use longitudinal designs.

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