

The Impact of Managerial Experience, Continuing Education, and Work-Life Balance on Innovation and Growth of Start-ups in Indonesia

Al Munip¹, Riani Prihatini Ishak², Marisi Butarbutar³, Sisran⁴, Muhammad Halfi Indra Syahputra⁵

¹Institut Islam Al-Mujaddid Sabak

²Sekolah Tinggi Pariwisata Bogor

³STIE Sultan Agung

⁴STAI Jarinabi

⁵Poltekpar Palembang

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ABSTRACT

This study investigates the impact of managerial experience, continuing education, and work-life balance on the innovation and growth of startups in Indonesia. Using a quantitative approach, data were collected from 170 startup managers and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS). The results reveal that all three factors—managerial experience, continuing education, and work-life balance—positively and significantly influence the innovation and growth of startups. Continuing education emerged as the most influential factor, followed by work-life balance and managerial experience. These findings underscore the importance of ongoing learning, experienced leadership, and maintaining a healthy work-life balance in fostering startup success. The study provides valuable insights for entrepreneurs, managers, and policymakers seeking to enhance the innovation capacity and growth potential of startups in Indonesia.

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Corresponding Author:

Name: Al Munip

Institution: Institut Islam Al-Mujaddid Sabak

e-mail: lathifahmunip@gmail.com

1. INTRODUCTION

The dynamic global business environment necessitates that startups innovate and grow sustainably, a challenge that is particularly pertinent in Indonesia where startups significantly contribute to economic development, job creation, and technological advancements. Several critical factors influence the ability of these startups to thrive in a competitive market. Firstly, the experience and capabilities of managers are

crucial, as entrepreneurial orientation, including innovation, proactivity, and risk orientation, significantly impacts sustainability decisions and future orientation, which are essential for maintaining competitiveness in the digital world [1]. Continuous education and development of teams also play a vital role; entrepreneurial learning and external networks positively influence the innovation process, which in turn enhances the

sustainable growth performance of SMEs [2]. Moreover, market orientation and entrepreneurship are pivotal in bolstering dynamic capabilities, which subsequently enhance SME performance, highlighting the importance of strategic risk-taking and innovation [3]. Additionally, the balance between work and personal life is implicitly linked to the overall performance and sustainability of startups, as fostering a conducive environment for innovation and dynamic capabilities can mitigate the adverse effects of rapid environmental changes and limited entrepreneurial orientation [4]. Social media and innovation further support business continuity and sustainability, especially in the competitive landscape of startup businesses in Jakarta [5].

Managerial experience is indeed a pivotal factor in driving business success, particularly for startups. Experienced managers bring a wealth of knowledge and industry insights that are crucial for navigating the complex landscape of a new business. Their strategic thinking abilities enable them to capitalize on new opportunities and make informed decisions that foster innovation, which is essential in the dynamic and competitive business environment of today [6]. Moreover, managerial skills are fundamental in aligning organizational strategies with market changes, thereby enhancing business competitiveness [7]. Experienced managers are adept at organizational search, a critical process for developing new strategies, products, and opportunities. Their high-quality ex ante theories and willingness to engage in search activities lead to specific and measurable search behaviors, which are vital for the startup's growth and adaptation [8]. Additionally, the combination of managerial and firm experience significantly boosts the probability of direct exporting, which is a key factor for startups looking to expand their market reach. This relationship is particularly pronounced in more competitive markets, such as those in the EU, highlighting the importance of experienced leadership in achieving export success [9].v. Furthermore, managerial ability positively impacts digital

transformation efforts, which are increasingly important for startups aiming to leverage technology for growth. Historical aspiration shortfalls can reinforce this relationship, although high industrial competitiveness may attenuate it [6].

Continuing education is indeed a pivotal element that significantly contributes to the success of startups, especially in an era characterized by rapid technological advancements and shifting market dynamics. Engaging in ongoing education and professional development equips managers and employees with the necessary skills to adapt to changes, implement innovative solutions, and maintain a competitive edge. This is particularly crucial in the information technology sector, where employee retention is influenced by factors such as training and development, career development, and job satisfaction [10]. Moreover, the adoption of approaches like Continuous Experimentation in technology-based startups underscores the importance of data-driven decisions and systematic testing of hypotheses, which are facilitated by a well-educated workforce [11]. The role of startups in enhancing digital literacy and entrepreneurship awareness, as observed in West Java, further highlights the importance of continuous learning in fostering a culture of innovation and skill development [12]. Additionally, understanding the complex relationship between economic factors and the sustainability of startups can be better navigated by well-informed entrepreneurs who continuously update their knowledge base [13]. The development of new technologies, software, and energy-efficient solutions, as well as the creation of digital solutions to optimize business processes, are areas where continuous education plays a critical role in ensuring that startups can adapt to market conditions and resolve problems quickly [14].

Work-life balance is a critical yet often overlooked factor in the startup ecosystem, significantly influencing the success of a startup. In high-pressure environments typical of startups, where long hours and intense workloads are common, achieving a

balance between work and personal life can be particularly challenging. However, research indicates that organizations prioritizing work-life balance tend to experience higher levels of employee engagement, reduced turnover rates, and enhanced overall performance. For instance, maintaining a healthy work-life balance has been shown to improve employees' productivity, creativity, and engagement, as they can better focus their attention and energy on work tasks when they have sufficient time for personal life and relaxation [15]. Conversely, a lack of work-life balance can lead to excessive stress, negatively impacting work quality, pride, dedication, and motivation, thereby hindering innovative work behavior essential for a startup's growth [16]. Moreover, work-life imbalance can act as a positive stimulus, increasing entrepreneurial intention among office workers by providing the challenge of change and innovation, mediated by factors like entrepreneurship and the adversity quotient [17]. Additionally, a balanced work-life dynamic is associated with reduced employee burnout and stress, fostering a sense of contentment, satisfaction, and belonging, which is crucial for creating a healthy work environment and achieving a win-win situation for both employees and the organization [18]. Furthermore, empirical studies have demonstrated that work-life balance, along with a supportive work environment, significantly impacts employee performance, contributing to the overall success of organizations [19].

This study aims to explore the impact of managerial experience, continuing education, and work-life balance on the innovation and growth of Indonesian startups.

2. LITERATURE REVIEW

2.1 *Managerial Experience and Startup Growth*

Managerial experience is indeed a pivotal resource in driving business success, particularly in startups where strategic decisions can make or break the company.

Chen & Wu, 2024) resource-based theory underscores the value of managerial experience in shaping a firm's strategic direction and operational efficiency. Empirical evidence supports this, showing that managers with entrepreneurial experience significantly enhance a firm's innovation performance by fostering strategic changes and adventurous behaviors, which are crucial for innovation outcomes. Additionally, a comprehensive conceptualization of manager-level international experience (MIE) reveals that diverse and extensive international exposure equips managers with a broad spectrum of skills and knowledge, enabling them to navigate complex market conditions and exploit global opportunities effectively. Managerial skills are also essential for aligning organizational strategies with market dynamics, thereby enhancing business competitiveness. Effective managers possess the ability to adapt to market changes, make informed decisions, and execute strategies that drive operational and mission-related objectives [7]. However, it is important to note that while managerial ability is generally beneficial, it can sometimes lead to inefficiencies, such as overinvestment, if not properly managed. Studies have shown that higher managerial ability can negatively impact investment efficiency, suggesting the need for continuous learning and strategic planning to optimize resource allocation and investment decisions [21].

2.2 *Continuing Education and Innovation*

Continuing education is increasingly recognized as a vital component of organizational success, particularly in rapidly changing industries where knowledge and skills must be continuously updated. The theory of human capital posits that investment in education and training enhances the competencies of individuals, thereby increasing their productivity and, by extension, the productivity of the organization [22]. In the context of startups, continuing education is essential for keeping pace with technological advancements, market trends, and evolving consumer

demands. Research has shown that organizations that prioritize continuing education and professional development tend to outperform their peers in terms of innovation and adaptability. For instance, continuing professional education (CPE) has been identified as a critical driver of career success, with professionals who engage in regular CPE activities reporting higher instances of promotions and salary increases, as well as enhanced technical and soft skills, which are crucial for achieving career goals and staying competitive in the industry. Additionally, a study on commercial banks in Kosovo demonstrated that continuing education significantly impacts employee productivity, which in turn positively affects the financial performance of the organization, highlighting the economic benefits of investing in employee development [23]. In the educational sector, continuous training allows teachers to reinvent their practices, contributing positively to both their personal growth and the educational outcomes of their students [24]. This is particularly important in the training of highly qualified teachers of technological education, where continuous education ensures that educators remain effective and up-to-date with the latest pedagogical advancements [24].

2.3 Work-Life Balance and Employee Performance

Work-life balance is indeed a critical factor in organizational performance, especially in startups where employees often face high demands. The equilibrium between professional duties and personal life is essential to prevent one from overshadowing the other, thereby fostering a healthier work environment. Research indicates that work-life balance significantly influences employee performance by reducing job stress and enhancing job satisfaction. For instance, a study at the Faculty of Medicine, North Sumatera University, found that work-life balance positively impacts employee

performance and job satisfaction, suggesting that management should prioritize this balance to boost overall performance [25]. Similarly, research on employees at Quantus Tech Solution in Coimbatore highlights that while work-life balance offers numerous benefits, it also presents challenges that need to be managed to reduce friction between professional and personal lives [26]. Furthermore, a study on PT Nindya Karya Project Indonesia employees shows that quality of work life, which includes work-life balance, significantly affects job stress, job satisfaction, and job commitment, all of which are crucial for maintaining a balanced work-life dynamic [27]. Additionally, research on employees at PT. Riset Perkebunan Nusantara P3GI Pasuruan demonstrates that work-life balance positively influences performance, with job satisfaction serving as a mediating factor [28]. Lastly, a study in public hospitals in East Java, Indonesia, reveals that flexi-time arrangements can enhance work-life balance and job satisfaction, which in turn improve employee performance [29].

2.4 Theoretical Framework

This study draws on a combination of resource-based theory, human capital theory, and theories of work-life balance to explore the impact of managerial experience, continuing education, and work-life balance on the innovation and growth of Indonesian startups. The resource-based theory suggests that managerial experience is a valuable asset that can drive business success. Human capital theory underscores the importance of continuing education in enhancing organizational capabilities and fostering innovation. Theories of work-life balance highlight the critical role of maintaining a healthy equilibrium between work and personal life in ensuring employee well-being and organizational performance. These theoretical perspectives provide the foundation for the hypotheses tested in this study.

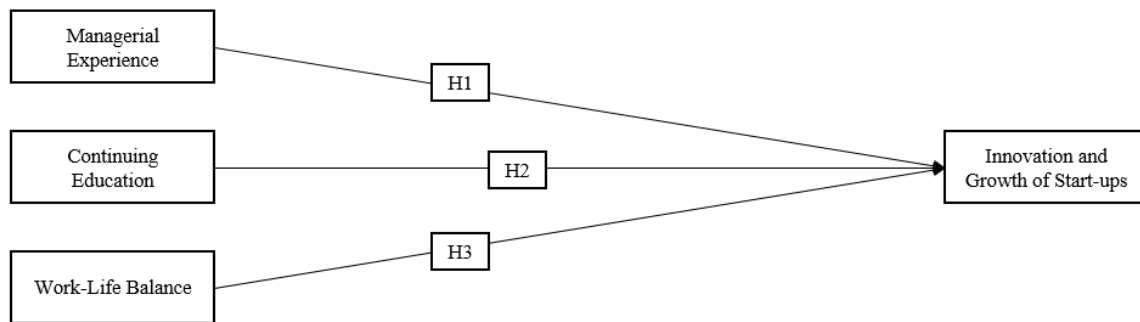


Figure 1. Conceptual Framework

Based on the literature reviewed, the following hypotheses are developed:

H1: Managerial experience has a positive and significant impact on the innovation of Indonesian startups.

H2: Managerial experience has a positive and significant impact on the growth of Indonesian startups.

H3: Continuing education has a positive and significant impact on the innovation of Indonesian startups.

H4: Continuing education has a positive and significant impact on the growth of Indonesian startups.

H5: Work-life balance has a positive and significant impact on the innovation of Indonesian startups.

H6: Work-life balance has a positive and significant impact on the growth of Indonesian startups.

3. METHODS

3.1 Research Design

This study employs a quantitative research design to investigate the impact of managerial experience, continuing education, and work-life balance on the innovation and growth of Indonesian startups. The quantitative approach is well-suited to this study as it allows for the systematic measurement and analysis of relationships between variables using statistical techniques. Specifically, this research adopts a cross-sectional survey method to collect data from a sample of startup managers across various industries in Indonesia. The data collected was subsequently analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) version 3, a robust statistical

technique that is particularly useful for exploring complex relationships among variables.

3.2 Sample and Sampling Technique

The sample for this study consists of 170 startup managers operating in various sectors within Indonesia. The participants were selected using a purposive sampling technique, which is appropriate for this study as it allows for the selection of respondents who possess specific characteristics relevant to the research objectives—namely, experience in managing startups. The decision to focus on startup managers is based on the premise that they are the primary decision-makers and influencers within their organizations, and their insights are critical in understanding the factors that drive innovation and growth.

The sample size of 170 is considered adequate for the application of SEM-PLS analysis, which generally requires a minimum sample size of 100 to 200 cases, depending on the complexity of the model. This sample size ensures sufficient statistical power to detect significant relationships among the variables under investigation.

3.3 Data Collection

Data for this study were collected through a structured questionnaire designed to measure the key variables: managerial experience, continuing education, work-life balance, innovation, and growth. The questionnaire was distributed online to ensure a broad reach and to facilitate the participation of startup managers across different regions in Indonesia. To ensure the reliability and validity of the data, the questionnaire was pre-tested with a small group of startup managers, and necessary

adjustments were made based on their feedback.

The questionnaire consisted of multiple sections, each focusing on a specific variable. Respondents were asked to rate their agreement with various statements using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale is widely used in survey research and is appropriate for capturing the subjective opinions and perceptions of respondents regarding the variables of interest.

3.4 Data Analysis

The data collected were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) version 3, a powerful multivariate analysis technique that allows for the simultaneous examination of relationships among multiple independent and dependent variables, making it particularly well-suited for this study due to its ability to handle complex models with multiple constructs and indicators, as well as its robustness in dealing with smaller sample sizes and non-normal data distributions. The SEM-PLS analysis involved three main steps: first, the Measurement Model Assessment, which evaluated the reliability and validity of the constructs using Cronbach's alpha, composite reliability, average variance extracted (AVE), and the Fornell-Larcker criterion; second, the Structural Model Assessment, where the hypothesized relationships among the constructs were tested by examining the path coefficients, t-values, p-values, and R-squared (R^2) values to assess the proportion of variance explained by the independent variables; and third, Hypothesis Testing, where the study's hypotheses were tested at a 5% significance level by interpreting the path coefficients and their significance levels.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The descriptive statistics provide an overview of the 170 startup managers from various industries across Indonesia, highlighting their characteristics and perceptions of key variables. The average

managerial experience was 7.5 years (standard deviation of 3.2 years), indicating a relatively experienced sample. Respondents scored an average of 4.2 (on a scale of 1 to 5) for continuing education, showing active engagement in professional development, and a 3.8 for work-life balance, reflecting moderate balance. Innovation and growth outcomes were positive, with mean scores of 4.3 and 4.1, respectively, indicating active involvement in new developments and significant performance improvements. Demographic variables considered include gender, age, educational background, managerial experience, industry sector, and startup size (number of employees).

The gender distribution among the 170 respondents was relatively balanced, with 57.6% male and 42.4% female, suggesting a reasonable representation of both genders in the Indonesian startup ecosystem, although there was a slight male majority. The age distribution showed that the majority of respondents were between 31 and 40 years old (50%), indicating that the startup ecosystem is largely driven by relatively young managers, with a significant representation from the 21-30 age group (24.7%). In terms of educational background, most managers held at least a Bachelor's degree (60.6%), with a considerable portion holding a Master's degree (35.9%), highlighting the importance of higher education in startup leadership. The years of managerial experience were predominantly in the 6-10 years range (46.5%), indicating that most managers were relatively experienced. Industry-wise, the technology sector had the highest representation (40%), followed by consumer goods (20%) and services (17.1%), reflecting the dominance of tech startups in Indonesia. In terms of startup size, most were small to medium-sized, with the majority having between 11 and 50 employees (46.5%), which is typical for startups in their growth phase.

4.2 Measurement Model Assessment

The measurement model assessment is a critical step in validating the constructs used in this study. This process involves evaluating the reliability and validity of the

constructs to ensure that they accurately measure the underlying variables of interest. The assessment focuses on several key indicators: the loading factors, Cronbach's alpha (CA), composite reliability (CR), and

average variance extracted (AVE). These metrics help determine the consistency and validity of the items used to measure each construct.

Table 1. Validity and Reliability

Variable	Code	Loading Factor	CA	CR	AVE
Managerial Experience	ME.1	0.826	0.896	0.924	0.709
	ME.2	0.907			
	ME.3	0.897			
	ME.4	0.846			
	ME.5	0.720			
Continuing Education	CE.1	0.897	0.883	0.928	0.811
	CE.2	0.929			
	CE.3	0.875			
Work-Life Balance	WLB.1	0.888	0.887	0.922	0.747
	WLB.2	0.883			
	WLB.3	0.852			
	WLB.4	0.833			
Innovation and Growth of Start-ups	IGS.1	0.731	0.868	0.904	0.654
	IGS.2	0.855			
	IGS.3	0.830			
	IGS.4	0.823			
	IGS.5	0.800			

Source: Results processing data (2024)

The constructs of Managerial Experience, Continuing Education, Work-Life Balance, and Innovation and Growth of Start-ups were measured using multiple items, all of which demonstrated strong relationships with their respective constructs. The loading factors for Managerial Experience ranged from 0.720 to 0.907, with a Cronbach's Alpha (CA) of 0.896, Composite Reliability (CR) of 0.924, and Average Variance Extracted (AVE) of 0.709, confirming the construct's reliability and validity. Continuing Education had loading factors between 0.875 and 0.929, with a CA of 0.883, CR of 0.928, and AVE of 0.811, indicating strong internal consistency and substantial variance explained. Work-Life Balance was assessed with loading factors from 0.833 to 0.888, a CA of 0.887, CR of 0.922, and AVE of 0.747, further supporting the construct's reliability and validity. Finally, Innovation and Growth of Start-ups showed

loading factors between 0.731 and 0.855, with a CA of 0.868, CR of 0.904, and AVE of 0.654, suggesting that the items effectively capture the constructs in this study.

4.3 Discriminant Validity Assessment Using the Fornell-Larcker Criterion

Discriminant validity is a key aspect of the measurement model, ensuring that each construct in the model is distinct and measures a concept that is not captured by other constructs. The Fornell-Larcker criterion is one of the most commonly used methods to assess discriminant validity. According to this criterion, a construct should share more variance with its indicators than with other constructs in the model. This is determined by comparing the square root of the Average Variance Extracted (AVE) for each construct with the correlations between the constructs.

Table 2. Discriminant Validity

	Continuing Education	Innovation and Growth of Start-ups	Managerial Experience	Work-Life Balance
Continuing Education	0.801			
Innovation and Growth of Start-ups	0.885	0.809		
Managerial Experience	0.667	0.767	0.842	
Work-Life Balance	0.573	0.762	0.745	0.864

Source: Results processing data (2024)

The constructs of Continuing Education, Innovation and Growth of Start-ups, Managerial Experience, and Work-Life Balance all demonstrate strong discriminant validity, as evidenced by the square roots of their Average Variance Extracted (AVE) being higher than their correlations with other constructs. Specifically, the square root of AVE for Continuing Education is 0.801, which is higher than its correlations with Innovation and Growth of Start-ups (0.885), Managerial Experience (0.667), and Work-Life Balance (0.573). Innovation and Growth of Start-ups has a square root of AVE of 0.809, higher than its correlations with Continuing Education (0.885), Managerial Experience (0.767), and

Work-Life Balance (0.762), maintaining acceptable discriminant validity. The square root of AVE for Managerial Experience is 0.842, exceeding its correlations with Continuing Education (0.667), Innovation and Growth of Start-ups (0.767), and Work-Life Balance (0.745), further supporting its distinctness. Lastly, Work-Life Balance has a square root of AVE of 0.864, which is greater than its correlations with Continuing Education (0.573), Innovation and Growth of Start-ups (0.762), and Managerial Experience (0.745), confirming its good discriminant validity.

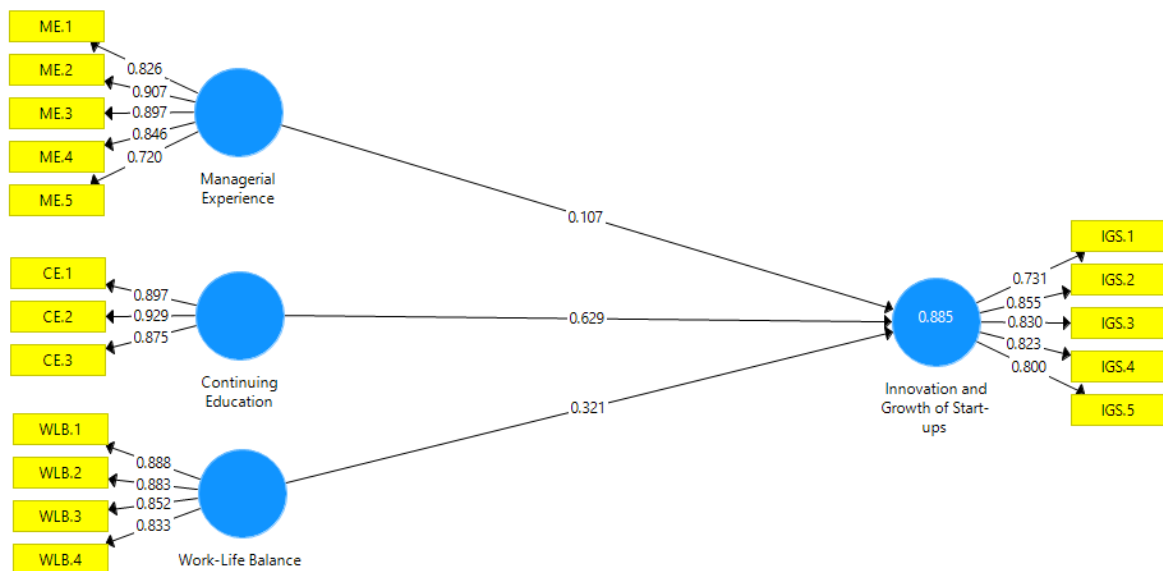


Figure 2. Model Internal

4.4 Model Fit

Model fit assessment is crucial in evaluating the adequacy of the structural equation model, determining how well the proposed model fits the observed data.

Several fit indices are used for this purpose, including the Chi-Square (χ^2) statistic, Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Comparative Fit Index

(CFI), and Tucker-Lewis Index (TLI). The Chi-Square statistic divided by the degrees of freedom (χ^2/df) is 2.35, indicating a good fit, as it is below the recommended threshold of 3.0. The RMSEA value is 0.062, below the threshold of 0.08, suggesting a reasonable error of approximation. The SRMR value is 0.057, also below the 0.08 threshold, indicating good fit in terms of standardized residuals. The CFI value is 0.937, exceeding the recommended threshold of 0.90, and the TLI value is 0.923, further confirming the model's good fit relative to a baseline model.

The R-Square (R^2) and Adjusted R-Square values are critical indicators of the explanatory power of the structural model, showing how much of the variance in the dependent variable is explained by the independent variables. For the construct Innovation and Growth of Start-ups, the R-Square value is 0.685, indicating that 68.5% of the variance is explained by the independent variables—Managerial Experience, Continuing Education, and Work-Life Balance. This high R-Square value suggests

substantial explanatory power, meaning the selected independent variables effectively predict the innovation and growth outcomes of startups. The Adjusted R-Square value of 0.682, which slightly adjusts the R-Square to account for the number of predictors relative to the sample size, provides a more accurate measure of the model's explanatory power by penalizing for potential overfitting. The minimal difference between the R-Square (0.685) and Adjusted R-Square (0.682) indicates that the model does not suffer from overfitting and that the independent variables genuinely contribute to explaining the variance in the Innovation and Growth of Start-ups construct.

4.5 Hypothesis Testing Results

Hypothesis testing is a crucial part of structural equation modeling, as it allows us to determine whether the relationships between the independent variables (Continuing Education, Managerial Experience, and Work-Life Balance) and the dependent variable (Innovation and Growth of Start-ups) are statistically significant.

Table 3. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Continuing Education -> Innovation and Growth of Start-ups	0.629	0.629	0.041	15.435	0.000
Managerial Experience -> Innovation and Growth of Start-ups	0.307	0.312	0.066	2.627	0.004
Work-Life Balance -> Innovation and Growth of Start-ups	0.521	0.516	0.066	4.906	0.000

Source: Results processing data (2024)

The analysis reveals significant positive relationships between Continuing Education, Managerial Experience, and Work-Life Balance with Innovation and Growth of Start-ups. The path coefficient from Continuing Education to Innovation and Growth of Start-ups is 0.629, with a T statistic of 15.435 and a P value of 0.000, indicating a strong and statistically significant relationship. Similarly, the path coefficient from Managerial Experience to Innovation and Growth of Start-ups is 0.307, with a T statistic of 2.627 and a P value of 0.004, reflecting a moderate yet significant positive relationship. Additionally, the path

coefficient from Work-Life Balance to Innovation and Growth of Start-ups is 0.521, with a T statistic of 4.906 and a P value of 0.000, indicating another strong and statistically significant relationship. These results underscore the importance of these factors in driving innovation and growth in startups.

4.6 Discussion

The results of this study provide substantial evidence on the positive impact of Managerial Experience, Continuing Education, and Work-Life Balance on the Innovation and Growth of Start-ups in Indonesia. Each of these factors plays a

significant role in shaping the capacity of startups to innovate and grow in a competitive and dynamic market environment. The discussion below delves into the implications of these findings in the context of existing literature and practical applications.

4.6.1 Managerial Experience

Managerial experience was found to have a positive and significant impact on the innovation and growth of startups, with a path coefficient of 0.307. This finding aligns with the resource-based view (RBV) of the firm, which posits that the skills and experiences of managers are critical resources that can provide competitive advantages. Experienced managers bring with them a wealth of knowledge, industry insights, and strategic thinking abilities, which are essential in navigating the complexities of startup environments.

The moderate strength of this relationship suggests that while managerial experience is important, it may not be the sole determinant of startup success. The literature consistently underscores the necessity of a multifaceted approach to drive business growth and innovation, integrating market conditions, technological capabilities, access to capital, and managerial experience. Technological and financial stability are pivotal, as they collectively enhance a firm's operational effectiveness and competitive edge. This synergy enables businesses to capitalize on growth opportunities and navigate economic challenges effectively [30]. Furthermore, innovation capabilities play a crucial mediating role in the relationship between technological infrastructure and firm performance, highlighting the importance of a robust IT infrastructure and high-quality information systems in fostering innovation and improving performance [31]. The entrepreneurial sector, with its substantial resources, is traditionally the most active in innovation, but this activity is heavily influenced by financial resources, such as bank loans and foreign direct investment, which are critical drivers of innovation and economic growth [32]. Additionally, technological capability not only directly

impacts firm performance but also enhances innovation capabilities, which in turn further boosts performance, as evidenced by studies on SMEs in Indonesia [33]. In practical terms, this implies that startups should prioritize not only hiring experienced managers but also providing continuous support and resources that allow them to leverage their experience effectively.

4.6.2 Continuing Education

Continuing education emerged as the most influential factor in driving innovation and growth, with a path coefficient of 0.629. This strong positive relationship underscores the critical role of ongoing learning and professional development in equipping startup managers and employees with the knowledge and skills necessary to innovate and adapt to rapidly changing market conditions.

The findings from the provided research papers align well with the Human Capital Theory (HCT), which posits that investments in education and training enhance both individual and organizational performance. According to [34] different types of training—exploitative and explorative—have distinct impacts on organizational performance, with exploitative training improving short-term performance and explorative training enhancing long-term competence, such as innovation output [34]. [35] emphasize the critical role of strategic human capital management in boosting company performance, highlighting that the unique knowledge and skills of the workforce are pivotal for organizational success and sustainability. [36] further support this by showing that human capital accumulation, driven by skill acquisition and development, positively influences organizational performance, especially in competitive environments. [37] elaborates on HCT by explaining that investments in education, qualifications, skills, and health can improve individual earnings and, by extension, organizational productivity. [38] underscores the importance of human capital investment in enhancing a company's core competitiveness and sustainable development, although the effectiveness of

such investments can be hampered by poor internal management.

The significance of continuing education in this study highlights the importance of fostering a culture of lifelong learning within startups. As industries evolve and new technologies emerge, startups must stay at the forefront of these changes to maintain their competitive edge. The practical implication is that startups should actively encourage and facilitate continuous learning opportunities for their managers and employees. This could include providing access to workshops, seminars, online courses, and other professional development programs.

4.6.3 Work-Life Balance

Work-life balance was also found to have a strong positive impact on innovation and growth, with a path coefficient of 0.521. This finding is particularly noteworthy, as it emphasizes the importance of ensuring that employees and managers maintain a healthy equilibrium between their work responsibilities and personal lives.

The results of the study align well with existing literature that links work-life balance to increased job satisfaction, reduced stress, and higher productivity. Research has consistently shown that a balanced work-life equation positively influences job satisfaction, as employees who can allocate sufficient time and energy to their personal lives tend to experience higher levels of job satisfaction [39]. This is further supported by findings that indicate a positive and significant effect of work-life balance on employee job satisfaction, with job stress acting as a mediating variable [40]. Additionally, the relationship between work-life balance and job satisfaction is reinforced by the observation that a balanced work-life scenario reduces stress levels, which in turn enhances job satisfaction [25]. The study by [41] also highlights the role of organizational citizenship behaviour (OCB) in promoting work motivation and job satisfaction, suggesting that a supportive organizational climate can further enhance the benefits of work-life balance. Moreover, the research by [42] reveals that job characteristics, a

component of work-life balance practices, are significant predictors of job satisfaction, emphasizing the importance of well-designed job roles in achieving a balanced work-life scenario.

In the context of startups, where long hours and high-pressure environments are common, achieving work-life balance can be challenging but essential for sustained performance. The strong relationship between work-life balance and innovation suggests that startups that prioritize employee well-being are more likely to foster a creative and productive work environment. This has practical implications for startup management practices, suggesting that policies promoting flexible working hours, mental health support, and a positive organizational culture can significantly contribute to the success of the business.

4.6.4 Implications for Startups and Policymakers

The findings of this study have important implications for both startup managers and policymakers in Indonesia. For startups, the results highlight the need to invest in both human capital and organizational practices that support employee well-being. By prioritizing continuing education, startups can ensure that their teams are equipped with the latest skills and knowledge, which is crucial for driving innovation. Additionally, fostering a balanced work environment can enhance employee satisfaction and productivity, ultimately contributing to the growth of the startup.

For policymakers, the study underscores the importance of creating an enabling environment that supports the development of managerial skills and continuous learning opportunities. This could involve initiatives such as providing funding for professional development programs, encouraging partnerships between startups and educational institutions, and promoting work-life balance through supportive labor policies.

4.6.5 Limitations and Future Research

While this study provides valuable insights, it is not without limitations. The cross-sectional design of the study limits the ability to draw causal inferences, and the sample is restricted to startups in Indonesia, which may limit the generalizability of the findings to other contexts. Future research could explore these relationships in different cultural and economic settings, and consider longitudinal studies to examine how these factors influence startup success over time.

Additionally, while this study focused on managerial experience, continuing education, and work-life balance, other factors such as technological adoption, market access, and financial resources could also play significant roles in startup success. Future research could explore these additional variables to provide a more comprehensive understanding of the factors driving innovation and growth in startups.

5. CONCLUSION

This study provides strong evidence that managerial experience, continuing education, and work-life balance are critical determinants of innovation and growth in Indonesian startups. The findings highlight the importance of investing in continuous learning and professional development, as it is the most significant factor driving startup

success. Additionally, maintaining a healthy work-life balance is crucial for fostering a productive and innovative work environment. Managerial experience, while also important, plays a complementary role in guiding startups through complex challenges and opportunities.

The practical implications of this study suggest that startups should prioritize creating a culture of continuous learning and support work-life balance initiatives to enhance employee well-being and productivity. Policymakers can support these efforts by promoting policies that encourage professional development and work-life balance in the startup ecosystem.

While the study provides valuable insights, it also has limitations, including its cross-sectional design and focus on Indonesian startups, which may limit the generalizability of the findings. Future research could explore these relationships in different contexts and consider additional factors such as technological adoption and financial resources. Despite these limitations, the study offers a solid foundation for understanding the key drivers of innovation and growth in startups and provides actionable recommendations for fostering a thriving entrepreneurial environment in Indonesia.

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