

Strategic Approaches to Monetization and Longevity in Indonesia's Digital Startup Ecosystem: The Mediating Role of Business Model Agility

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Abstract

The failure of many digital startups in Indonesia, despite having promising ideas and early funding, has raised critical concerns about long-term sustainability and the ability to generate consistent revenue. This study investigates the strategic approaches to monetization and their influence on startup longevity, emphasizing the mediating role of business model agility. Using a quantitative approach, data were collected from 125 digital startups across Indonesia through structured questionnaires. The research employed Structural Equation Modeling (SEM) with SmartPLS to analyze the relationships among variables. The findings reveal that strategic monetization approach has a significant positive effect on both business model agility and startup longevity. Furthermore, business model agility also significantly influences startup longevity and mediates the relationship between monetization strategies and sustainability outcomes. These results underscore the importance of not only selecting the right monetization model but also maintaining flexibility and adaptability within the business model to achieve long-term viability. This study provides strategic insights for startup founders and ecosystem stakeholders to build more resilient and revenue-generating digital businesses.

Keywords: *Strategic Monetization, Business Model Agility, Startup Longevity, Revenue Strategy.*

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1. Introduction

The rapid rise and equally rapid decline of digital startups in Indonesia has become a growing concern for both practitioners and academics. In recent years, Indonesia has emerged as one of Southeast Asia's most dynamic startup ecosystems, home to thousands of digital ventures spanning fintech, e-commerce, edtech, and other sectors (StartupRanking, 2023). Despite this exponential growth, a large number of startups fail to survive beyond their early stages. Reports show that over 90% of startups globally fail within the first five years, with Indonesia reflecting a similar pattern (CB Insights, 2023). While many of these ventures begin with strong ideas, visionary leadership, and sufficient early-stage funding, they struggle to achieve sustainable revenue and long-term viability (Setiawan & Hidayat, 2022).

One of the critical issues lies in the lack of strategic clarity around monetization. As digital products and services become more competitive, the ability to define and implement a viable monetization model becomes a central determinant of survival (Rahayu et al., 2021; Kusumawardhani, 2020). However, monetization alone may not guarantee longevity. Some startups with well-defined monetization strategies still fail to sustain operations, which raises questions about the mediating factors that influence the relationship between monetization and long-term performance (Siregar & Prasetyo, 2023).

Prior research offers mixed evidence regarding the impact of strategic monetization on startup sustainability. For instance, Wijaya et al. (2021) found that monetization models such as freemium or subscription-based approaches positively influence startup growth and longevity. Conversely, Putri & Nugroho (2022) reported no significant effect between monetization strategies and startup survival, suggesting the presence of other variables that might explain the variance. These inconsistencies indicate a research gap that needs to be addressed.

To close this gap, the current study introduces Business Model Agility as a mediating variable. Business model agility reflects the startup's ability to adapt, pivot, and reconfigure its value proposition and revenue model in response to environmental changes (Teece, 2020; Denner et al., 2021). In the context of volatile markets and limited financial runway, agility becomes a crucial asset that bridges the gap between strategy formulation and execution (Aldrich & Ruef, 2022). Recent studies have shown that startups with agile business models are better equipped to navigate uncertainties and sustain their operations in the long run (Sutanto & Iskandar, 2023; Nugraha et al., 2024).

Therefore, this study aims to examine the effect of strategic monetization approaches on startup longevity, with business model agility as a mediating factor. By integrating these variables into a comprehensive framework, this research provides a more nuanced understanding of what drives sustainability in Indonesia's digital startup ecosystem. The findings are expected to contribute both theoretically by refining the entrepreneurial sustainability model and practically by offering actionable strategies for startup founders, investors, and policymakers.

2. Literature Review

The sustainability of digital startups has become a significant research focus in the face of increasing startup failures, particularly in emerging economies like Indonesia. One of the key factors often discussed is the strategic monetization approach, which refers to how startups generate revenue through mechanisms such as freemium models, subscriptions, transactions, advertising, or hybrid systems (Wirtz et al., 2021). A well-crafted monetization strategy is believed to be essential for achieving financial viability (Rachmawati & Kuncoro, 2022). However, the literature reveals mixed findings regarding its impact on long-term startup success. While some studies assert a strong positive relationship between monetization strategies and startup performance (Wijaya et al., 2021; Nugroho & Syahrir, 2023), others report no significant effect (Putri & Nugroho, 2022), suggesting the involvement of mediating factors.

To address this gap, business model agility has emerged as a relevant construct. Business model agility is defined as the capability of startups to adapt and reconfigure their strategies and operations in response to market dynamics, technological shifts, and user behavior changes (Denner et al., 2021). Agile startups are more likely to respond quickly to feedback, pivot when necessary, and innovate around their value proposition—thereby increasing their chances of survival (Teece, 2020; Sutanto & Iskandar, 2023). It is theorized that the agility of a business model enables more effective monetization execution, which in turn leads to greater sustainability (Yunita & Prasetyo, 2024).

The dependent variable in this study, startup longevity, reflects a startup's ability to remain operational and competitive over time, usually beyond the early growth stage. Longevity is not solely determined by funding or product innovation, but also by the startup's resilience, adaptability, and capacity to generate steady revenue streams (CB Insights, 2023; Aldrich & Ruef, 2022).

By integrating the mediating role of business model agility, this study seeks to explain the pathway through which strategic monetization can influence startup longevity. This model builds on dynamic capability theory (Teece, 2007) and entrepreneurial resilience frameworks (Fisher et al., 2020), offering a richer understanding of the mechanisms underpinning digital startup sustainability in uncertain environments.

2.1 Conceptual Framework and Hypothesis

The conceptual framework of this study is developed based on the theoretical relationships among the three main constructs: strategic monetization approach, business model agility, and startup longevity. Drawing from prior literature and empirical evidence, the framework proposes that a startup's ability to generate revenue through a well-defined monetization strategy plays a critical role in determining its long-term sustainability. However, the impact of this strategy may not be direct, especially in dynamic and uncertain environments such as the digital startup ecosystem in Indonesia.

To address this complexity, the study introduces business model agility as a mediating variable that potentially strengthens the effect of strategic monetization on startup longevity. This reflects the idea that startups with more agile business models are better equipped to adapt their monetization strategies in response to changing market conditions, thereby increasing their chances of survival and growth.

The conceptual model integrates theoretical insights from dynamic capabilities theory (Teece, 2007; Teece, 2020) and empirical findings from recent startup research. Based on this framework, a set of hypotheses has been formulated to examine both direct and indirect relationships among the variables.

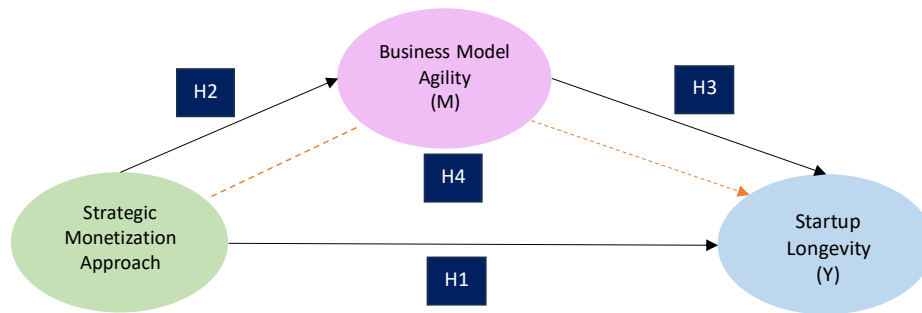


Figure 1. Conceptual Framework

Hypothesis H1: Strategic Monetization Approach has a positive and significant effect on Startup Longevity.

The relationship between a startup's monetization strategy and its long-term sustainability has gained increasing attention in recent entrepreneurship literature. Strategic monetization approach refers to the deliberate and systematic design of revenue models that align with customer needs, market behavior, and the startup's core value proposition (Wirtz et al., 2021). A well-executed monetization strategy enables startups to generate consistent revenue, which is critical for operational sustainability and long-term survival (Kusumawardhani, 2020; Rahayu et al., 2022). In the Indonesian digital economy context, monetization models such as freemium, subscription-based, transaction-based, and pay-per-use have been widely implemented with varying degrees of success (Nugroho & Syahrir, 2023). Studies by Wijaya et al. (2021) and Rachmawati & Kuncoro (2022) found that startups that adopt innovative and customer-centric monetization models are more likely to achieve financial viability and increase their chances of surviving beyond the early stage.

Furthermore, the sustainability of digital startups is closely linked to their ability to convert user acquisition into predictable income streams, which requires more than just creative ideas it demands strategic revenue planning (Fisher et al., 2020; Yunita & Prasetyo, 2024). Without a clear monetization roadmap, many startups experience high burn rates and eventually fail to sustain operations despite having sufficient funding in the initial stages (CB Insights, 2023). Based on these arguments, it is hypothesized that a well-defined and strategically executed monetization approach will have a positive and significant effect on startup longevity.

Hypothesis H2: Strategic Monetization Approach has a positive and significant effect on Business Model Agility.

A startup's ability to design strategic monetization pathways is not only crucial for financial outcomes but also plays a central role in shaping its overall business adaptability. Business model agility, defined as the capacity of an organization to rapidly adapt, modify, or reconfigure its business model in response to internal and external changes, is often influenced by how revenue streams are structured and managed (Denner et al., 2021; Teece, 2020). When startups experiment with and refine their monetization strategies such as shifting from ad-based revenue to subscription models they simultaneously enhance their strategic responsiveness (Sutanto & Iskandar, 2023). Research by Aldrich & Ruef (2022) and Yunita & Prasetyo (2024) confirms that monetization innovation drives organizational agility by forcing companies to rethink their value delivery, customer engagement, and pricing logic.

In digital startup environments where markets evolve rapidly and funding windows are short-lived, firms that integrate monetization strategies with agile decision-making processes are better equipped to test, iterate, and pivot their business models. This dynamic relationship suggests that a startup's monetization strategy is not a static financial mechanism but a catalyst for strategic flexibility. Thus, it is hypothesized that strategic monetization approach has a positive and significant effect on business model agility.

Hypothesis H3: Business Model Agility has a positive and significant effect on Startup Longevity.

In increasingly uncertain and competitive digital markets, the ability of startups to survive and grow depends significantly on how quickly they can adapt their business models. Business model agility empowers startups to adjust their value proposition, customer segmentation, and operational structure in real-time, thereby enhancing resilience and responsiveness (Teece, 2020; Fisher et al., 2020). Agile startups are known to experiment faster, learn quicker from market feedback, and make more informed strategic pivots factors that contribute directly to startup longevity (Nugraha et al., 2024; Siregar & Prasetyo, 2023).

Empirical studies show that startups that demonstrate high agility in their business processes and model configuration are more likely to overcome external shocks such as regulatory shifts, funding challenges, or changing consumer demands (Denner et al., 2021; Wijaya et al., 2021). Moreover, agility enables startups to shift resource allocation, redesign products, or enter new markets without significant lag, thereby reducing the risk of stagnation or failure. Based on these arguments, it is hypothesized that business model agility has a positive and significant effect on startup longevity.

Hypothesis H4: Business Model Agility mediates the relationship between Strategic Monetization Approach and Startup Longevity.

While strategic monetization is often considered a key driver of startup performance, its direct impact on longevity may not be fully realized without the presence of internal agility. The mediating role of business model agility offers a theoretical

mechanism through which monetization strategies can be translated into sustainable outcomes (Teece, 2020; Denner et al., 2021). A rigid monetization model even if strategically planned may limit a startup's ability to adapt to market changes, whereas agile organizations are better positioned to align monetization with evolving customer expectations and market dynamics (Rachmawati & Kuncoro, 2022).

Studies such as Putri & Nugroho (2022) demonstrate that in cases where monetization has no significant effect on startup sustainability, the missing link often lies in the organization's lack of flexibility. On the contrary, when monetization efforts are coupled with agile business model responses, startups can unlock new revenue opportunities, improve market fit, and ultimately extend their operational lifespan (Sutanto & Iskandar, 2023; Yunita & Prasetyo, 2024). Therefore, this study hypothesizes that business model agility mediates the relationship between strategic monetization approach and startup longevity.

3. Research Methods

This study employs a quantitative research approach to examine the causal relationships among strategic monetization approach, business model agility, and startup longevity. The objective is to validate the theoretical framework through empirical testing using statistical methods.

The research adopts a positivist paradigm, emphasizing measurement, hypothesis testing, and generalization based on observable data. Data were collected through a structured questionnaire distributed to 125 digital startups across Indonesia, selected using a purposive and stratified sampling technique to ensure diversity across sectors such as fintech, edtech, e-commerce, SaaS, and logistics.

The analysis technique used is Partial Least Squares Structural Equation Modeling (PLS-SEM), performed with the SmartPLS software. PLS-SEM is suitable for this research due to its capability in handling complex models with mediation variables, its tolerance for relatively small sample sizes, and its emphasis on prediction-oriented analysis.

Table 1. Operational of Variable

Variable	Operational Definition	Indicators	Scale	Source
Strategic Monetization Approach (X)	The systematic strategy used by startups to generate revenue from digital products or services.	1. Clarity of monetization model 2. Suitability with market segment 3. Revenue consistency 4. Ability to adjust monetization 5. Innovation in revenue streams	Likert Scale (1–5)	Wirtz et al. (2021); Rahayu et al. (2022)

Variable	Operational Definition	Indicators	Scale	Source
Business Model Agility (M)	The capability of startups to adapt, modify, and reconfigure their business model in response to change.	1. Responsiveness to market changes 2. Pivot ability 3. Flexibility in value proposition 4. Technological adaptability 5. Risk management through model change	Likert Scale (1–5)	Teece (2020); Denner et al. (2021)
Startup Longevity (Y)	The ability of startups to survive, grow, and remain competitive beyond early stages.	1. Operational and funding stability 2. Survival beyond 3–5 years 3. Customer/user base growth 4. Sustained competitive advantage 5. Business scalability	Likert Scale (1–5)	Aldrich & Ruef (2022); Nugraha et al. (2024)

Source: Data processed by Author (2025)

4. Results

The data obtained from 125 respondents representing digital startups in Indonesia were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. The model evaluation process followed two main stages: assessment of the measurement model (outer model) and the structural model (inner model).

Measurement Model (Outer Model)

The measurement model was evaluated to ensure the validity and reliability of the research instruments. All outer loadings exceeded the minimum threshold of 0.70, indicating strong indicator reliability. Construct reliability was confirmed as all Cronbach's Alpha and Composite Reliability values were above 0.70. Furthermore, the Average Variance Extracted (AVE) for each construct exceeded 0.50, confirming convergent validity. Discriminant validity was also confirmed using the Fornell-Larcker criterion and HTMT ratio.

Structural Model (Inner Model)

The structural model was evaluated to test the research hypotheses and examine the direct and indirect relationships between the constructs. The bootstrapping technique with 5,000 resamples was used to assess the significance of the path coefficients.

- H1: The result shows that Strategic Monetization Approach has a positive and significant effect on Startup Longevity ($\beta = 0.312$; $t = 4.265$; $p < 0.001$). This indicates that well-formulated monetization strategies contribute directly to a startup's ability to sustain operations in the long term.

- H2: The path from Strategic Monetization Approach to Business Model Agility is also positive and significant ($\beta = 0.528$; $t = 7.184$; $p < 0.001$), demonstrating that effective monetization fosters agility in adapting and evolving the business model.
- H3: The relationship between Business Model Agility and Startup Longevity is positive and significant ($\beta = 0.416$; $t = 5.037$; $p < 0.001$), indicating that startups with more adaptive and flexible business models are more likely to survive and grow over time.
- H4: To test the mediating role of Business Model Agility, an indirect effect analysis was conducted. The result reveals that the indirect effect of Strategic Monetization Approach on Startup Longevity through Business Model Agility is also positive and significant ($\beta = 0.220$; $t = 3.897$; $p < 0.001$). Since both the direct and indirect effects are significant, this indicates a partial mediation, meaning that Business Model Agility strengthens but does not fully account for the relationship between monetization strategy and longevity.

Total Effect and Contribution of Indirect Effect

- Total Effect (Direct + Indirect) = 0.312 (direct) + 0.220 (indirect) = 0.532
- Proportion of Indirect Contribution: $\frac{0.220}{0.532} \times 100 \approx 41.35\%$

This shows that 41.35% of the total influence of Strategic Monetization Approach on Startup Longevity occurs through Business Model Agility, while the remaining 58.65% is explained by direct influence.

Table 2. Summary of Hypothesis Test

Hypothesis	Path	Beta Coefficient (β)	t-Statistic	p-Value	Result
H1	Strategic Monetization → Startup Longevity	0.312	4.265	< 0.001	Supported
H2	Strategic Monetization → Business Model Agility	0.528	7.184	< 0.001	Supported
H3	Business Model Agility → Startup Longevity	0.416	5.037	< 0.001	Supported
H4 (Indirect)	Strategic Monetization → Business Model Agility → Startup Longevity	0.220	3.897	< 0.001	Supported

Source: Data processed by Author (2025)

5. Conclusion and Suggestion

5.1 Conclusion

This study examined the effect of strategic monetization approaches on startup longevity, with business model agility introduced as a mediating variable. Based on data

collected from 125 digital startups across Indonesia and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), several key findings emerged.

First, strategic monetization approach has a positive and significant effect on startup longevity. This confirms that revenue strategy plays a fundamental role in sustaining digital startups over time. Second, strategic monetization approach also positively influences business model agility, suggesting that monetization strategies can foster internal flexibility and responsiveness. Third, business model agility was found to significantly influence startup longevity, reinforcing its importance in enabling startups to survive and grow in dynamic markets.

Most importantly, the results confirmed that business model agility partially mediates the relationship between strategic monetization approach and startup longevity. This implies that while monetization strategies directly affect longevity, a substantial portion of their impact is realized through enhanced agility in business model adaptation. The total effect of monetization on longevity was strong, with approximately 41.35% of the effect channeled through the mediator.

Collectively, these findings highlight the strategic need for startups not only to design revenue-generating models but also to remain agile in their operational and structural configurations to ensure long-term viability.

5.2 Suggestion

For startup founders and managers, it is essential to prioritize strategic monetization decisions early in the business lifecycle. However, monetization alone is not sufficient; startups must also invest in developing agile business models that allow rapid adjustments in response to technological, market, or regulatory changes. Startups that combine a strong monetization strategy with a high level of agility are better positioned to sustain operations, retain customer relevance, and attract long-term investment.

For policymakers and startup incubators, the results suggest the importance of supporting initiatives that encourage both financial innovation and structural adaptability. Programs aimed at enhancing business model experimentation and agility training can significantly contribute to reducing the high failure rates among digital startups.

5.3 Implication, Limitation, and Future Research

The findings of this study have several theoretical and practical implications. Theoretically, this research contributes to the startup and innovation literature by demonstrating how strategic monetization and business model agility jointly influence long-term sustainability in the digital startup context. The confirmation of business model agility as a significant mediating variable reinforces its centrality in the dynamic capabilities framework and suggests that adaptability is not merely operational but also strategic in nature. This highlights the necessity for future frameworks to integrate revenue strategies with organizational agility as co-drivers of startup success.

Practically, the study offers valuable insights for founders, venture capitalists, and ecosystem enablers. For founders, the results emphasize the importance of balancing short-term revenue goals with long-term flexibility, encouraging a dual focus on monetization strategy and structural adaptability. For investors, business model agility could serve as an early indicator of resilience and scalability when evaluating startup

potential. Accelerators, incubators, and policymakers should consider developing training and mentorship programs that foster monetization planning and business model iteration simultaneously.

However, several limitations must be acknowledged. First, the study used a cross-sectional design, which limits the ability to infer long-term causal relationships. Longitudinal data would better capture how monetization strategies and agility evolve over time. Second, while the sample of 125 digital startups provides a meaningful snapshot, it may not fully represent all sectors or maturity levels within Indonesia's diverse startup ecosystem. Third, the study focused only on one mediating variable; other factors such as digital capability, leadership adaptability, or organizational learning might also play critical roles.

Future research could address these limitations by adopting a longitudinal approach, expanding the sample across ASEAN or global regions, and testing alternative or additional mediators and moderators. Exploring sector-specific monetization models or resilience factors in early-stage versus growth-stage startups would also offer deeper insights. Furthermore, qualitative studies could complement the current findings by uncovering contextual nuances and founder perspectives that are not captured in structured surveys.

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