

THE STRATEGIC POSITION OF BRIN'S BUSINESS INCUBATOR SERVICE AS A CATALYST FOR NATIONAL RESEARCH AND INNOVATION DOWNSTREAMING: AN INTEGRATED MCKINSEY 7S, PESTEL, AND SWOT ANALYSIS

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Abstract

This article analyzes the strategic position of the Business Incubation Service (LIB) at the National Research and Innovation Agency (BRIN) as a catalyst for the downstreaming of national research and innovation by integrating McKinsey 7S, PESTEL, and SWOT frameworks. This descriptive qualitative study uses primary data from observations and in-depth interviews with LIB BRIN managers, tenants, other incubator managers, and venture capitalists, as well as secondary data from official documents and policies related to research downstreaming. The PESTEL analysis reveals opportunities against the backdrop of threats from regulatory dynamics, fiscal pressures, and low national technological readiness, such as BRIN's potential as an orchestrator of national technology incubators, a large and diverse domestic market, green economy trends, and ease of global networking. Through McKinsey 7S, LIB BRIN is identified as having strategic strengths such as relatively stable funding from research endowment funds, broad access to research resources, a focus on research-based incubation, and a strong identity as a research-based incubator. However, it still faces weaknesses, including the lack of dedicated incubation buildings, gaps in business mentor human capital competencies, limited ease of research access for entrepreneurs, and an immature service system. Integrating the 7S and PESTEL findings into a SWOT analysis shows that LIB BRIN's strengths and opportunities outweigh its weaknesses and threats, indicating that the institution possesses strategic capital to strengthen its role in research downstreaming, with implications for the need to enhance governance, improve human capital capacity, develop supporting infrastructure, and mature a network-based incubation model with cross-institutional collaboration.

Keywords: *business incubator, Strategic position analysis, McKinsey 7's Framework, PESTEL Analysis, SWOT Analysis*

BACKGROUND

Research and innovation perform a strategic role in driving Indonesia's economic growth, as emphasized in the National Research Master Plan (RIRN). However, their implementation remains constrained by bureaucracy, limited funding, and suboptimal quality of human resources and research infrastructure (Noerlin & Mursitama, 2023). Actual research expenditure has reached only 0.23% of GDP (DKRI, 2025), below UNESCO's recommended level of 1–2%, while Indonesia's position in the Global Innovation Index, although improving, still leaves room for progress in knowledge diffusion (WIPO, 2024), reflecting these challenges. At the same time, Indonesia ranks highly in terms of the number of startups globally (Startup Ranking, 2025), driven by high internet penetration (Danil et al., 2025) and a large, technology-savvy younger generation (Smadi-Delcheva, 2021; Jahroh et al., 2023), making the need for effective research downstreaming mechanisms increasingly urgent. In this context, business incubators accelerate technological maturity by providing access to funding, technical mentoring, and industry networks, while also bridging researchers and entrepreneurs so that research outputs become more responsive to market needs (Ogurtsov et al., 2016). However, various studies and field data indicate that incubator effectiveness remains limited (Darmawan, 2019), including low product commercialization rates (Noerlina & Mursitama, 2023), weak business-model development among tenants (Farransahat et al., 2021), constrained access to funding and industry networks (Syarif et al., 2022; Suhendi et al., 2023), and the fact that most incubators are either unregistered or have not achieved high ratings in the national ranking system (SIPENSI KEMENUMKM, 2025). This situation is also evident in the Business Incubation Service (LIB) of the National Research and Innovation Agency (BRIN) of

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Indonesia, which faces a declining number of tenants and is not yet formally registered as an institution (DFRI, 2023), potentially reducing its contribution to downstreaming research outcomes. Building on this context, this study aims to analyze the position and capabilities of BRIN's Business Incubation Service as a catalyst for the downstreaming of national research and innovation by integrating internal and external environmental analyses into a SWOT framework. Specifically, the study employs the McKinsey 7S Framework to identify internal strengths and weaknesses, and PESTEL to map external opportunities and threats affecting LIB BRIN's performance. The contribution of this research lies in providing a more comprehensive understanding of the strategic condition of government-owned, research-based incubators, while also offering an empirical basis for formulating agendas to strengthen internal capacity and sharpen LIB BRIN's role within the national research downstreaming ecosystem.

LITERATURE REVIEW

Developing the Business Incubation Service as a catalyst for the downstreaming of national research and innovation requires an in-depth understanding of both the organization's internal conditions and the external environmental dynamics that influence it. In this context, two commonly used strategic-analysis approaches are the McKinsey 7S Framework for examining the internal environment and PESTEL Analysis for assessing macro-external factors (Thompson et al., 2018). The McKinsey 7S Framework is an organizational-analysis model which maps a constellation of interrelated factors that influence the changing ability of the organization (McKinsey.com, 2025). This framework integrates seven core elements which were grouped into hard elements (strategy, structure, systems) and soft elements (skills, staff, style, shared values) (Suwanda & Nugroho, 2022). By analyzing the interrelationships and consistency among the 7S elements, organizations can identify internal misalignments (Al-Tamimi, 2023), recognize strengths and weaknesses, and formulate more comprehensive and coordinated strategic solutions (Jain & Kansal, 2025).

On the other hand, to understand the impact of the external environment on organizational performance and sustainability, many researchers use PESTEL analysis as a strategic framework. PESTEL is an acronym for six dimensions of macro-external factors: Political, Economic, Social, Technological, Environmental, and Legal (Thompson et al., 2018). This approach helps organizations identify opportunities and threats arising from political changes, economic conditions, social trends, technological advances, environmental issues, and legal regulations (Baker, 2007). Thus, PESTEL analysis provides a broader global perspective, enabling organizations to design adaptive, responsive, and competitive strategies in the face of external dynamics (Thompson et al., 2018). The combination of the McKinsey 7S Framework and PESTEL analysis then forms the logical basis for applying SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) in this study. SWOT is used to integrate findings (David et al., 2023; Heidari et al., 2025) from internal-environment analysis through the McKinsey 7S Framework (Bounjerte et al., 2025; Nguyen et al., 2025) and external-environment analysis (PESTEL) (Dioba et al., 2025; Herrera-Franco et al., 2025) into a strategic matrix that depicts the organization's strengths and weaknesses, as well as the opportunities and threats it faces from the external environment. In the context of BRIN's business incubator, this approach is expected to reveal the potential for developing incubation services as a catalyst for the downstreaming of national research and innovation, while also providing more structured, evidence-based strategic recommendations.

METHOD

This study was conducted within the working environment of the National Research and Innovation Agency (BRIN) in Central Jakarta, Special Capital Region of Jakarta, from July to October 2025. The data used include both primary and secondary data. The study utilized secondary data from official documents of BRIN's Business Incubation Service (LIB), literature reviews, policies related to the downstreaming of national research and innovation, and other relevant information. This study gathered primary data through observation and in-depth interviews to better understand the contextual factors influencing the implementation of business incubation services (Saunders et al., 2003). Observation was conducted directly in the working area of LIB BRIN to understand the physical conditions, governance, business-process flows, and the implementation of business incubation services. The primary data were collected through In-depth interviews to explore strengths and weaknesses, as well as opportunities and threats faced by LIB BRIN, and to assess the relative weight of each internal and external-environment factor. Interviews were conducted both face-to-face and online, depending on respondents' availability. In-depth interviews are an appropriate method when participants are experts or key actors who possess an in-depth understanding of the research topic (Schindler, 2022; Zikmund et al., 2013).

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The sampling techniques used were purposive and convenience sampling. Purposive sampling was applied to select respondents who have relevant knowledge and experience regarding business incubator management and research downstreaming. In contrast, convenience sampling was used for respondents who were practically accessible to the researcher (Leedy et. al. 2019). Respondents consisted of managers of BRIN's Business Incubation Service (3 persons), tenant participants in BRIN's business incubation programs (2 persons), managers of other business incubators (4 persons), a venture-capital firm leader (1 person), and a manager of SIPENSI, the Ministry of Cooperatives and Small and Medium Enterprises (1 person). Data analysis was conducted qualitatively using a descriptive approach to provide a comprehensive picture of the research object. In this study, a strategic analysis was conducted by integrating three analytical frameworks: the McKinsey 7S Framework, PESTEL, and SWOT. McKinsey 7S was used to analyze internal organizational factors (strategy, structure, systems, skills, staff, leadership style, and shared values) as the basis for identifying strengths and weaknesses of BRIN's Business Incubation Service (Jain & Kansal, 2025; Suwanda & Nugroho, 2022). Macro-external factors were identified through a PESTEL analysis, covering the political, economic, social, technological, environmental, and legal dimensions (Dioba et al., 2025; Herrera-Franco et al., 2025), to reveal the opportunities and threats facing LIB BRIN. The results of internal (7S) and external (PESTEL) analyses were subsequently categorized into four SWOT factor groups (strengths, weaknesses, opportunities, and threats) (Heidari et al., 2025), yielding a structured depiction and classification of the strategic condition of LIB BRIN as a catalyst for the downstreaming of national research and innovation.

RESULTS AND DISCUSSION

External-Environment Analysis of LIB BRIN

This Study Analyzed The external-environment factors affecting LIB BRIN through in-depth interviews using the PESTEL approach with three main groups of informants: incubator managers in Indonesia, managers of LIB BRIN, and BRIN's incubatee tenants. These three groups were selected because they possess a comprehensive understanding of the external dynamics influencing the performance of business incubators in Indonesia, including the operational context of LIB BRIN. In the political dimension, LIB BRIN, as an incubator affiliated with the central government, is influenced by policy dynamics and changes in government administration, particularly the centralization of research through the establishment of BRIN under Presidential Regulation No. 78 of 2021. This centralization creates opportunities for BRIN to orchestrate national research and innovation in a more coordinated manner (Maludin et al., 2021), while simultaneously posing challenges such as resource reduction (Taqwa et al., 2022) and shifts in business-incubation concepts amid changing authorities regulated under Perpres No. 27 of 2013 and Perpres No. 106 of 2017, which later experienced stagnation after the change in ministry nomenclature in 2019 (Afraah et al., 2024). Currently, the management of business incubators in general falls under the Ministry of Cooperatives and Small and Medium Enterprises through Government Regulation No. 7 of 2021 (Muafi & Hadi, 2023), which is considered insufficient in supporting technology-based incubators. This situation opens space for BRIN to assume a strategic role as an orchestrator of business incubation based on the outcomes of national research and innovation.

From an economic perspective, incubators can accelerate startup growth by facilitating access to financing and investor networks, but this role is highly dependent on macroeconomic stability and the investment climate (Meiryani et al., 2021). Political instability, policy changes, and economic weakening tend to reduce investment interest, depress purchasing power, and make it difficult for startups to access markets and funding. Findings by Rijoly et al. (2025) emphasize that political stability, legal clarity, and policy consistency are key determinants of the sustainability of the business and innovation ecosystem, especially for investor confidence. In the social dimension, Indonesia's large and diverse demographics represent a significant market opportunity for innovation-based businesses. Incubators play an important role in helping tenants transform social problems into market-valued business solutions (Kovaleva et al., 2023). However, many startups still face difficulties executing ideas to the commercialization stage due to a lack of success stories and publications that can serve as learning role models (Wahyuningsih et al., 2019). Therefore, incubators need to align their mentoring focus with potentially promising demographic segments so that incubation programs are more targeted and yield optimal impact. From a technological perspective, the relatively low level of national technological readiness leads investors to prefer innovations already ready for production and marketing, often leaving local technologies lagging behind imported ones. Limited access by entrepreneurs to research outputs weakens the potential for commercialization, as innovations are difficult to link directly to industry needs. In this context, BRIN is seen as needing to develop a research and innovation roadmap and build strategic partnerships with industry to strengthen collaboration and support technology commercialization (Wulung et al., 2018).

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In the environmental dimension, the principle of sustainability is becoming increasingly important because it directly affects long-term business viability. Implementing sustainability principles often raises production costs and selling prices, requiring policy support and government incentives to keep sustainable products competitive. Studies by Oesman et al. (2024) and Maslikhah et al. (2024) show that higher prices of environmentally friendly products create consumer hesitation. However, demand growth continues, and the market share of sustainable products remains limited. From the legal side, the prospects for developing the business-incubation industry are quite favorable, as the government provides various regulatory supports, including simplified licensing and product-testing procedures, reflected in improvements in the ease of doing business indicators and strengthened support for economic activities and business legality (Saiful-Haq et al., 2024). Intellectual property rights (IPR) are not always a priority for all startups, but they are crucial for high-technology products or innovations with specific specifications to clarify differentiation and protect commercial value. Research by Lambrecht et al. (2025) shows that strong patents and trademarks positively contribute to sales growth and return on assets (ROA). However, focus on product quality remains the primary determinant of business success (Ramakrishnan et al., 2019).

Based on this PESTEL analysis, This study revealed several key opportunities and threats for LIB BRIN. Opportunities include: (1) BRIN's potential as an orchestrator of national technology incubators, (2) complex social dynamics with a large and diverse domestic market, (3) the ongoing trend of the green economy, and (4) increasingly accessible global networks. On the other hand, main threats include: (1) vulnerable institutional legitimacy due to regulatory and nomenclature changes, (2) weak economic growth and declining purchasing power, (3) low national technological readiness, and (4) budget-efficiency pressures that limit program flexibility.

Internal-Environment Analysis of LIB BRIN This study examined Internal-environment analysis using the McKinsey 7S Framework to explore and categorize the main components within the LIB BRIN. This approach enables the researcher to understand the consistency and misalignments among internal elements that influence the performance of the business-incubation service (Jain & Kansal, 2025; Suwanda & Nugroho, 2022). In the strategy dimension, LIB BRIN formulates its strategy through the intersection of roles between the Deputy for Research and Innovation Utilization (DPRI), which directs the substance and strategic direction of mentoring programs, and the Deputy for Research and Innovation Facilitation (DFRI), which manages and distributes budgets according to each deputy's responsibilities. From a strategic management perspective, this pattern has the potential to strengthen program quality control. Nevertheless, it also carries the risk of misalignment when mentoring priorities and budgeting are not fully synchronized (Masefield et al., 2021).

From a structural perspective, LIB BRIN lacks a hierarchical organizational design. This pattern can accelerate decision-making because coordination paths are shorter, and work distribution can be adjusted to needs. However, in the context of incubation services that require sustained mentoring and process standardization, this non-hierarchical structure risks piling up coordination burdens and increasing dependence on task-team performance (Ingvaldsen et al., 2012). In the systems dimension, the funding scheme for LIB BRIN, sourced from the research endowment fund, is relatively more stable than the previous model, which relied on institutional budgets. However, the absence of an incubation building means that services mainly target startups that already have offices or are under other incubators through a co-incubation scheme. This condition fosters a network-based incubation model rather than a facility-based one. On the other hand, it also prevents LIB BRIN from fully joining incubator associations such as AIBI and ASTPI, thereby limiting opportunities for cross-incubator collaboration and institutional-position strengthening.

From the skills aspect, the human resources team at LIB BRIN does not yet have specific expertise in business mentoring, so competency gaps are temporarily addressed by bringing in external experts. Budget efficiency does not directly reduce funding for startups, but it affects the development of managers' capacity, potentially lowering the intensity and variety of mentoring support. Within the McKinsey 7S framework, this indicates an imbalance between the mentoring strategy and available skills, particularly regarding mentoring and business-development capabilities (Assenova, 2020). In the staff dimension, personnel involved in mentoring at LIB BRIN do not always have direct business experience. However, their capacity is strengthened through incubation-management training and prior experience managing incubators at previous institutions. This approach reflects internal capacity building, i.e., developing mentoring competencies through structured training and repeated practice, rather than relying solely on early-career industry experience (Farransahat et al., 2021). In the context of a research-based incubator, this approach is considered relevant because staff sit at the intersection of research and innovation functions. However, its effectiveness depends heavily on the quality of training (Kartika & Nazira, 2024) and the intensity of involvement in the mentoring process (Sudana et al., 2019).

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From the style or leadership-style perspective, LIB BRIN applies a coordinative leadership style that emphasizes cross-functional collaboration. This approach helps synergize various tenant needs, such as funding, market validation, research commercialization, and industry networking, which are inherently cross-functional. Research by Achyuta et al. (2025) states that such a coordinative style requires precise communication mechanisms and consistent coordination rhythms to avoid role ambiguity, task duplication, and decision-making delays that could hinder responsiveness to startup-need dynamics. In the shared values dimension, LIB BRIN's shared values center on supporting the development of research-based startups as the primary mentoring focus. These values underpin the strategy and serve as a reference in setting program priorities. The shared values affirm BRIN's incubation-service identity as an incubator that treats research and innovation as the basis of competitive advantage, rather than merely a general entrepreneurship facilitator, and function as an internal glue that aligns all programs with BRIN's mandate as a national research and innovation agency.

Based on this analysis, several key strengths and weaknesses of LIB BRIN can be identified. Strengths include: (1) funding sourced from a research endowment fund, making it relatively more stable, (2) broad access to national research and innovation resources, (3) specialization in incubation based on research and innovation outcomes, and (4) a strong identity as a research-based incubator. On the other hand, main weaknesses include: (1) the absence of an incubation-building facility as tenant offices, making mentoring less optimal, (2) competency gaps among incubation human resources, (3) limited accessibility of research and innovation outputs for entrepreneurs, and (4) an incubation-service system that is not yet fully mature. SWOT Analysis The findings regarding internal and external factors were then integrated into a SWOT analysis to obtain a more structured picture of LIB BRIN's strategic position. The strengths and weaknesses identified through McKinsey 7S were combined with the opportunities and threats resulting from the PESTEL analysis (Rodmanee et al., 2024), yielding a configuration of strategic factors that can serve as the basis for formulating an agenda to strengthen LIB BRIN's role as a catalyst for the downstreaming of national research and innovation.

In the strengths category, LIB BRIN occupies a unique position as a research-based incubator supported by broad access to national research and innovation resources and relatively stable funding from a research endowment fund. Its specialization in incubation based on research and innovation outcomes, along with its identity as a technology incubator, reinforces BRIN's position as a key actor in the downstreaming ecosystem. These strengths form an important foundation for exploiting external opportunities, especially in BRIN's role as an orchestrator of national technology incubators and in strengthening global networks. On the other hand, the main weaknesses of LIB BRIN lie in limited physical infrastructure, gaps in incubation-related human capital competencies, and an incubation service system that is not yet fully mature. These conditions create challenges in delivering intensive, standardized mentoring and limit the incubator's capacity to reach more startups effectively. These weaknesses may also hinder the utilization of external opportunities, particularly when a more structured, facility-based incubation model is required. From the opportunities perspective, BRIN's business incubator operates in a highly supportive context: BRIN's potential as an orchestrator of national technology incubators, a large and diverse domestic market, the growing trend of the green economy, and increasingly accessible global networks. These opportunities can be leveraged to expand the reach of incubation programs, strengthen collaboration with industry and other institutions, and accelerate the commercialization of national research and innovation outcomes.

However, BRIN's business incubator also faces several threats, including vulnerable institutional legitimacy due to regulatory and nomenclature changes, weak economic growth and declining purchasing power, low national technological readiness, and budget-efficiency pressures that constrain program flexibility. These threats can amplify the impact of internal weaknesses and reduce the effectiveness of external opportunity utilization if not managed strategically. Overall, the SWOT analysis indicates that LIB BRIN's strategic position lies in a condition where strengths and opportunities are relatively more dominant than weaknesses and threats. However, it still requires improvements in infrastructure, human-capital capacity, and service systems to maximize the role of BRIN's business incubator as a catalyst for the downstreaming of national research and innovation. The results of this analysis form the basis for understanding the strategic condition of BRIN's business incubator, without reaching the stage of formulating concrete strategic alternatives; thus, the focus of the study remains on depicting and categorizing the strategic factors that influence the development of incubation services.

Conclusion

This study shows that LIB BRIN possesses strategic strengths, including relatively stable funding, broad access to research and innovation resources, and a focus on research-based incubation, positioning it uniquely within the national downstreaming ecosystem. On the other hand, the absence of an incubation building, competency gaps

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among business-mentoring human resources, limited access of entrepreneurs to research outputs, and an immature incubation-service system constitute the main weaknesses that need to be addressed promptly. From an external perspective, LIB BRIN operates in a dynamic policy environment and an economy that is not yet fully stable, with relatively low national technological readiness. However, it faces opportunities from a large domestic market, green-economy trends, and easier access to global networks. Integrating these factors into the SWOT analysis indicates that LIB BRIN's strengths and opportunities are more prominent than its weaknesses and threats, suggesting the institution has strategic capital to play a larger role in downstreaming national research and innovation. The implication is that strengthening LIB BRIN's role as a catalyst for downstreaming requires restructuring and improving the governance of its services, enhancing the capacity of incubation-management human resources, building or optimizing supporting infrastructure, and maturing the service system to support a network-based and cross-institutional collaborative incubation model. Theoretically, this study reaffirms the relevance of integrating the McKinsey 7S and PESTEL frameworks into SWOT analysis to understand the strategic position of research-based incubators within government agencies. This study is still limited to a descriptive, qualitative approach, with a relatively scattered of respondents, and does not measure quantitative post-incubation performance. Future studies can develop outcome-based performance indicators for tenants, test proposed strategic models, and compare LIB BRIN with other incubators at the national and international levels to enrich understanding of the determinants of success for research-based incubators.

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REFERENCES

- [1] Noerlin, N, Mursitama TN. 2023. An Overview of Characteristics and Condition of High-Tech Industry in Indonesia. In E3S Web of Conferences (Vol. 388, p. 01038). EDP Sciences.
- [2] DKRI, PIRTI. (2025). Indikator Iptek, Riset, dan Inovasi 2025. . National Research and Innovation Agency. DOI: <https://doi.org/10.55981/brin.2128> Available at: penerbit.brin.go.id/others/catalog/book/2128 . Access on 2 Jan. 2026.
- [3] WIPO. 2024 Des. Global Innovation Index 2024. Online. <https://www.wipo.int/web-publications/global-innovation-index-2024/en/> Diakses tanggal 10 Desember 2024
- [4] Startup Ranking. 2025. Top – Indonesi startup. On Line. <https://www.startupranking.com/top/indonesia>. Diakses tanggal 20 Maret 2025
- [5] Danil L, Jahroh S, Syarief R, Taryana A. 2025. Technological Innovation in Start-Ups on a Pathway to Achieving Sustainable Development Goal (SDG) 8: A Systematic Review. Sustainability 17, 1220. <https://doi.org/10.3390/su17031220>
- [6] Smadi-Delcheva, S. 2021. The role of startups in the generation of innovative young entrepreneurs. Trakia Journal of Sciences, 19(1), 292-295.
- [7] Jahroh S, Asikin Z, dan Ramadanti A. 2023. Identification of factors influencing millennial farmers acceptance in drone technology in Indonesia. Abstract. AGRIS. Online. <https://agris.fao.org/search/en/records/67234250b605bda15e0a3451> diakses tanggal 09 Oktober 2025
- [8] Ogurtsov ES, Rylov AA, Durdyeva DA, Lebedev NA, Khachatryan KS, Safyan AM, Tsareva GR. 2016. The role of business incubators in supporting economic growth and advancement of small business of the Russian Federation. Indian Journal of Science and Technology, 9(29). DOI: 10.17485/ijst/2016/v9i29/89339.
- [9] Darmawan A. 2019. Meningkatkan peran inkubator bisnis sebagai katalis penciptaan wirausaha di Asia Pasifik: Tinjauan ekonomi makro. Equity 7(1), 1-12.
- [10] Farransahat, M., Bhinekawati, R., & Hendriana, E. (2021). The Role of University-Based Incubators in Social Entrepreneurship's Development: The Capability Approach as an Evaluative Framework. Journal of Indonesian Economy and Business, 36(3), 215-233. <https://doi.org/10.22146/jieb.v36i3.1741>
- [11] Syarif A, Saputra NE, Ekasari N. 2022. Hilirisization Strategy Of Lecturer's Research As Acceleration Of Commercial Product Innovation Of Higher Education. International Journal of Scientific & Technology Research. Vol. 11(01). 29-35.

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- [12] Suhendi, Achسانی NA, Najib M, Novianti T. 2023. Model Kolaborasi Lembaga Keuangan dan Universitas Dalam Memperkuat Akses Layanan Keuangan Mikro dan Kinerja Usaha Mikro dan Kecil di Indonesia. *Jurnal Aplikasi Bisnis Dan Manajemen (JABM)*, 9(3), 976. <https://doi.org/10.17358/jabm.9.3.976>
- [13] [SIPENSI KEMENUMKM]. Sistem Informasi Pendaftaran dan Evaluasi Inkubasi Kementerian Usaha Mikro Kecil dan Menengah. 2025. Sistem Informasi Pendaftaran Informasi dan Evaluasi Inkubasi. On line. <https://sipensi.umkm.go.id>. Diakses tanggal 22 September 2025ramli.
- [14] [DFRI BRIN] Deputi Fasilitasi Riset dan Inovasi BRIN. 2023. Laporan Kinerja DFRI BRIN Tahun Anggaran 2023.
- [15] Thompson A, Janes A, Peteraf M, Sutton C, Gamble J, dan Strickland A. 2018. EBOOK: Crafting and executing strategy: The quest for competitive advantage: Concepts and cases. McGraw hill.
- [16] McKinsey.com. 2025. Enduring Ideas: The 7-S Framework. Online. [Diakses tanggal 9 oktober 2025]. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/enduring-ideas-the-7-s-framework>
- [17] Suwanda dan Nugroho, BY. 2022. Literature reviews: McKinsey 7S model to support organizational performance. *Technium Soc. Sci. J.*, 38, 1.
- [18] Al-Tamimi, S. A. (2023). Mckinsey Model and Management Accounting Systems Requirements to Measure and Analyze Performance in Sample of Emerging Companies. *International Journal of Professional Business Review*, 8(4), e01330. <https://doi.org/10.26668/businessreview/2023.v8i4.1330>
- [19] Jain N dan Kansal J .2025. Application of McKinsey 7S Framework as a Strategic Tool for a Knowledge-Based Organizational Development. *IEEE Engineering Management Review*, vol. 53, no. 2, pp. 14-26, April 2025, doi: 10.1109/EMR.2023.3338966
- [20] Baker D. 2007. *Strategic Change Management in Public Sector Organisation*. Chandos Publishing. Oxford
- [21] David FR, David FR, David ME. 2023. *Strategic management concepts and cases a competitive advantage approach*. Pearson Education Limited -Essex
- [22] Heidari, A., Yoosefee, S., Adeli, S., AhmariTehran, H., Ardebili, M., & Heidari, M. (2025). Facilitators and barriers of the integration of spirituality into medical education: A situation analysis. *Journal of Medical Education Development*. <https://doi.org/10.61186/edcj.18.1.54>
- [23] Bounjerte, I., Khalidy, S., Mazouzy, I., El Turk, J., Haidar, I., Kettani, A., ... & Bennani, H. (2025). Evaluating organisational performance in healthcare: a mixed-method study using the McKinsey 7S framework. *BMJ Open Quality*, 14(2).
- [24] Nguyen, M. V., Ha, K. D., Le, T. D., & Nguyen, K. V. (2025). Appraising the influence of internal factors on organizational greenwashing through McKinsey 7S framework. *International Journal of Construction Management*, 25(16), 2041–2050. <https://doi.org/10.1080/15623599.2025.2501404>
- [25] Dioba, A., Schmid, A., Aliahmad, A., Struthers, D., & Fróes, I. (2025). Human excreta recycling in Sweden: a PESTEL-SWOT framework analysis–Review. *Journal of Environmental Management*, 389, 126242.
- [26] Herrera-Franco, G., Fornés, J. M., Bravo-Montero, L., Montalván, F. J., & Carrión-Mero, P. (2025). Water governance PESTEL/SWOT-TOWS analysis in the Andean Community of Nations (ACN). *Environmental Challenges*, 101249.
- [27] Saunders M, Lewis P, Thornhill A. 2003. *Research methods for business students*. Essex: Prentice Hall
- [28] Schindler PS. 2022. *Business research methods fourteenth edition*. McGraw Hill – New York
- [29] Zikmund WG, Babin BJ, Carr JC, Griffin M. 2013. *Business Research Methods Ninth Edition*. Cengne Learning – South Western.
- [30] Leedy PD, Ormrod JE, Johnson LR. 2019. *Practical Research: Planning and Design*. New York: Pearson Education.
- [31] Maludin, S., Syarief, R., Rifin, A., & Rochman, N. T. (2021). Reassembling Technology Transfer in Indonesia. *International Journal of the Analytic Hierarchy Process*, 13(3).
- [32] Taqwa, M. D., Putra, M. I. D., & Muharam, M. A. (2022). The Existence of Indonesian National Research and Innovation Agency: The Academic Freedom's Perspective. *Padjadjaran Jurnal Ilmu Hukum (Journal of Law)*, 9(1), 111-134.
- [33] Afraah, S. M., Sutopo, W., & Hisjam, M. (2024). Development of PBL on technopreneur education to encourage faster technology commercialization. *Journal of Applied Research in Higher Education*, 16(5), 1659-1673.
- [34] Muafi, Hadi, P. (2023). Factors contributing to sustainable growth performance in Indonesian SMEs: The role of business incubators. *International Journal of Sustainable Development and Planning*, Vol. 18, No. 10, pp. 3297-3308. <https://doi.org/10.18280/ijstdp.181029>

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- [35] Jacobus Cliff Diky Rijoly, Kangwook Noh, & I Putu Yoga Bumi Pradana. (2025). Nexus between Capital Inflow and Economic Growth: Evidence from Indonesia. *Asian Academy of Management Journal of Accounting and Finance*, 21(1), 25-52. <https://doi.org/10.21315/aamjaf2025.21.1.2>
- [35] Kovaleva, Y., Hyrynsalmi, S., Saltan, A., Happonen, A., & Kasurinen, J. (2023). Becoming an entrepreneur: A study of factors with women from the tech sector. *Information and Software Technology*, 155, 107110.
- [36] Meiryani, M., Yonerang, R., Setiadi, D., Sun, Y., & Wahyuningtias, D. (2021, August). The Effect of Community Income On Purchasing Power in the Condition of the Economic Crisis. In *2021 5th International Conference on Business and Information Management* (pp. 25-32).
- [37] Wahyuningsih, S. E. (2019, December). The Level of Necessity and Mental Readiness by Fashion Department Students in Supporting Fashion Business Incubator. In *1st Vocational Education International Conference (VEIC 2019)* (pp. 306-313). Atlantis Press.
- [38] Wulung, R. B., Takahashi, K., & Morikawa, K. (2018). A model for selecting appropriate technology for incubator-university collaboration by considering the technology transfer mechanism. *International Journal of Production Research*, 56(6), 2309-2321.
- [39] Oesman, I. F., Sari, D., Helmi, A., & Komaladewi, R. (2024). Factors influencing consumers' willingness to pay more for green convenience goods in Indonesia. *Innovative Marketing*, 20(3), 110-120.
- [40] Maslikhah, Andika, Tampubolon, N. K. T., Harahap, J. B., & Luthfiana, D. N. (2024). Stay or Switch: How Usage Barriers Influence Consumer Transition to Green Skincare Products in Indonesia Using Push-Pull-Mooring Framework. *Int. J. Environ. Impacts.*, 7(4), 603-614. <https://doi.org/10.18280/ije.070401>
- [41] Andi, Saiful-Haq., Endang, Tirtana., Azhari, Aziz, Samudra., Evi, Satispi. (2024). Government strategy to revive SMEs from post-COVID-19 collapse: Analysis of economic improvement for lower class communities in Jakarta, Indonesia. *Journal of infrastructure, policy and development*, 8(8):7314- 7314. doi: 10.24294/jipd.v8i8.7314
- [42] Lambrecht, D., Block, J., Neuenkirch, M., Steinmetz, H., & Willeke, T. (2025). The interdependence of intellectual property rights and sales in the manufacturing industry: evidence from the triangle of patents, trademarks, and sales. *Economics of Innovation and New Technology*, 1-25.
- [43] Ramakrishnan, S., Vijaya K.K.R., Chandran, N., Vasudevan, AM. 2019. Frugal product development: Think beyond conventional product development approach to “ensure customer satisfaction, by familiarizing product and its performance”. *International Journal of Mechanical and Production Engineering Research and Development*, 9 (3), pp. 1057 - 1068. DOI: 10.24247/ijmperdjun2019113
- [44] Masefield, S. C., Msosa, A., Chinguwo, F. K., & Grugel, J. (2021). Stakeholder engagement in the health policy process in a low income country: a qualitative study of stakeholder perceptions of the challenges to effective inclusion in Malawi. *BMC Health Services Research*, 21(1), 984.
- [45] Ingvaldsen, J. A., & Rolfsen, M. (2012). Autonomous work groups and the challenge of inter-group coordination. *Human Relations*, 65(7), 861-881.
- [46] Assenova, V. A. (2020). Early-stage venture incubation and mentoring promote learning, scaling, and profitability among disadvantaged entrepreneurs. *Organization Science*, 31(6), 1560-1578.
- [47] Kartika, L., Nazira, C.M., 2024. The Return on Training Investment (ROTI) Analysis of the Business Incubator Program. Bucharest: Romanian Society for Quality Assurance. Vol. 25. DoI:10.47750/QAS/25.200.36
- [48] Sudana, I. M., Apriyani, D., Suprpto, E., & Kamis, A. (2019). Business incubator training management model to increase graduate competency. *Benchmarking: An International Journal*, 26(3), 773-787. DOI: 10.1108/BIJ-03-2018-0069
- [49] Achyuta, G., Y Shadangi, P., Tiwary, A., Gupta, A., AS, P., Chheda, K., Babitha, B., & Kataria, A. (2025). Exploring the Influence of Communication Mechanisms on Organizational Effectiveness and Employee Engagement. *Management (Montevideo)*, 3, 167. <https://doi.org/10.62486/agma2025167>
- [50] Rodmanee, S., Chaisit, S., Photcharoen, C., Rodmanee, Y., Sann, R. (2024). Marketing Strategies of Tham Sing Robusta Coffee in Thailand: SWOT IE and TOWS Matrix. In: Jeseo, V., Allen, J. (eds) *Bringing the Soul Back to Marketing. AMSWMC 2023. Developments in Marketing Science: Proceedings of the Academy of Marketing Science*. Springer, Cham. https://doi.org/10.1007/978-3-031-53286-3_4

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