SWOT-Based Governance Assessment of BP Batam: Addressing Institutional, Regulatory, and Investment Barriers

Yudithia Yudithia[1], Wahyo Yuniartoto[2], Suryahadi Suryahadi[3], Augusto Soares[4], Luh Komang Candra Dewi[5]

[1]Universitas Maritim Raja Ali Haji, Tanjungpinang City, Indonesia
[2]Alumni Universitas Pertahanan, Bogor. Indonesia
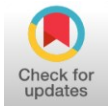[3]Alumni Universitas Gadjah Mada, Yogyakarta. Indonesia
[4]Institute of Business, Dili City, Timor Leste
[5]Universitas Triatma Mulya. Badung. Indonesia

Corresponding Author: yudithia@umrah.ac.id[1]

https://doi.org/10.69812/ijsps.v2i1.100

Abstract:
As Indonesia intensifies its commitment to evidence-based governance and performance accountability through frameworks like SAKIP, there is growing urgency to evaluate the effectiveness of key institutions such as BP Batam. Positioned as the governing body for a strategic Free Trade Zone, BP Batam is tasked with managing licensing, investment, and asset optimization amidst complex regulatory and environmental challenges. This study investigates BP Batam's governance performance in 2024, which, despite notable successes in investment realization and public satisfaction, calls for a deeper strategic analysis to assess the sustainability and inclusivity of these outcomes. The purpose of this research is to assess institutional strengths, weaknesses, opportunities, and threats using a SWOT framework in order to provide actionable recommendations for policy refinement and governance enhancement. Employing a qualitative descriptive design, the study analyzes secondary data, including the 2024 LAKIP report and related policy documents, selected through purposive sampling. Data were interpreted using thematic content analysis and SWOT matrix coding. The findings indicate that while BP Batam has surpassed its economic targets, it faces internal challenges such as uneven service quality, limited digital integration, and low stakeholder participation. Externally, overlapping jurisdiction and ecological vulnerabilities pose strategic risks. The conclusion emphasizes the need for digital governance acceleration, stakeholder-centered engagement, and regulatory synchronization to transform BP Batam into a model of inclusive and resilient governance.

Keyword: SWOT Analysis, Governance Performance, Public Sector

INTRODUCTION

The performance evaluation of public institutions has become increasingly vital as governments around the world shift toward evidence-based policy and performance

oriented good governance. In Indonesia, the implementation of the Government Agency Performance Accountability System (SAKIP) marks a national strategy to instill greater transparency, efficiency, and accountability among public institutions. Within this framework, the Batam Indonesia Free Zone Authority (BP Batam) plays a strategic role in managing investment, licensing, and asset optimization in the Free Trade Zone.

The 2024 LAKIP (Government Agency Performance Report) of BP Batam reveals significant overachievement of its strategic indicators, yet such accomplishments demand critical analysis through tools like SWOT (Strengths, Weaknesses, Opportunities, and Threats) to guide future improvements and sustained impact (Gurel, 2017; Leigh, 2010). SWOT analysis has long served as a foundational approach for strategic decision-making in both private and public sectors. It facilitates the identification of internal and external factors that may influence institutional success, thus enabling more informed strategic planning (Coman & Ronen, 2009; Phadermrod et al., 2019). In the context of public governance, especially in transitional economies, SWOT is particularly useful in diagnosing areas for reform, resource reallocation, and governance enhancement (Görener et al., 2012; Puyt et al., 2023). BP Batam, with its expanded jurisdiction across multiple islands and its unique mandat under Indonesian law, presents a rich case for the application of SWOT as a framework for integrated performance evaluation.
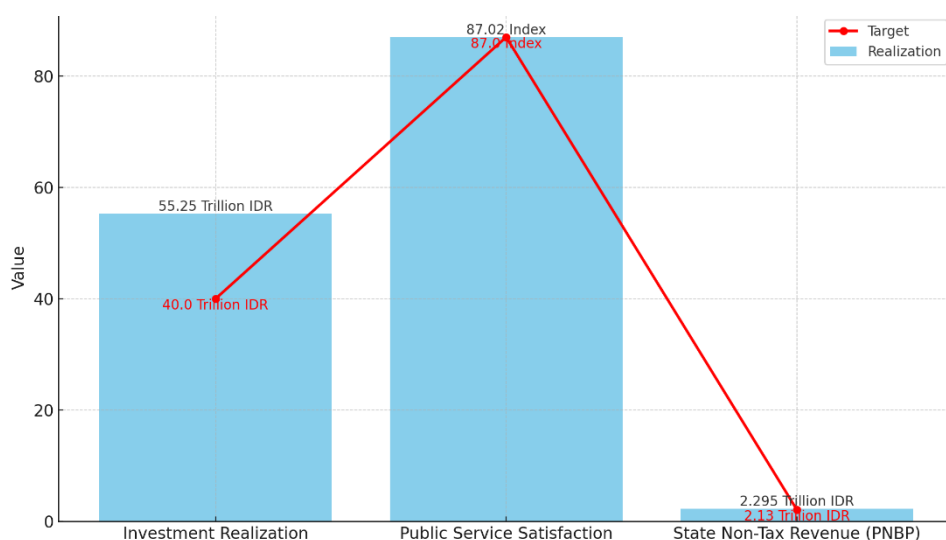

Figure 1. BP Batam 2024 Performance Achievement
Source: LAKIP BP Batam, 2024

The bar chart illustrates the 2024 performance achievements of BP Batam across three key strategic indicators: investment realization, public service satisfaction, and state non-tax revenue (PNBP). The data clearly shows that BP Batam significantly exceeded its targets in both investment and PNBP, achieving IDR 55.25 trillion in investment 138.13% of the IDR 40 trillion target and IDR 2.295 trillion in PNBP 107.73% of the IDR 2.13 trillion target. Meanwhile, the public satisfaction index marginally surpassed expectations, recording a score of 87.02 against the target of 87. These outcomes reflect BP Batam's strong operational execution and effective governance, although they also call for a deeper strategic analysis to ensure sustainability and equitable development outcomes.

The urgency of this analysis stems from the rising expectations on BP Batam to foster not only economic performance through increased investment but also to ensure citizen satisfaction, public value delivery, and regulatory transparency. According to the

2024 LAKIP, BP Batam exceeded its investment target by 138.13% and achieved a public satisfaction index (IKM) of 87.02%, surpassing the benchmark (LAKIP BP Batam, 2024). However, quantitative success alone is insufficient; what remains to be explored is the sustainability of such achievements, the quality of institutional responses to operational challenges, and the alignment between strategic planning and actual performance outcomes (Imani et al., 2024; Muzwardi & Simbolon, 2024)

This article situates itself at the intersection of public performance reporting and strategic management by conducting a focused SWOT analysis of BP Batam's 2024 performance indicators. The analysis draws on best practices from comparative SWOT applications in both governmental and developmental contexts, including tourism (Jeelani & Shah, 2024; Reihanian et al., 2012), environmental governance (Waheed et al., 2025), and waste management (Khosravani et al., 2025; Srivastava et al., 2005). These case studies provide methodological insights and empirical parallels to enrich the evaluative framework applied in this paper.

Furthermore, the contribution of this article lies in its interdisciplinary approach, integrating quantitative performance data with qualitative strategic insights. It critically assesses BP Batam's operational strengths (e.g., regulatory authority, geographic advantages), identifies weaknesses (e.g., stakeholder coordination, transparency issues), explores emerging opportunities (e.g., digital governance, ASEAN integration), and addresses threats (e.g., geopolitical tension, environmental risks) using a matrix-based evaluation (Kamran et al., 2020; Longsheng et al., 2022; Nilashi et al., 2024). The article offers strategic recommendations that are grounded in theoretical rigor and practical feasibility, aimed at optimizing institutional performance in future cycles.

BP Batam's achievements in 2024 signal administrative competence and economic vigor, a SWOT-based analytical lens enables a deeper understanding of organizational dynamics and strategic readiness. By employing a structured evaluative methodology, this study contributes to the ongoing discourse on public sector performance improvement in Indonesia and underscores the relevance of integrative planning tools in shaping resilient and accountable governance systems (Mainali et al., 2011; Nagara et al., 2015).

RESEARCH METHOD

The Research Method section of this article outlines a comprehensive and systematic approach to evaluating BP Batam's governance performance. This study adopts a qualitative descriptive design, integrating document-based and policy-oriented evaluation strategies to investigate institutional dynamics, regulatory constraints, and investment-related governance within the context of a special economic zone. This study targets publicly accessible policy documents, primarily the Laporan Kinerja Instansi Pemerintah (LAKIP) BP Batam 2024, alongside complementary academic literature and governmental reports that focus on SWOT-based governance assessment. The documents were selected using purposive sampling, prioritizing sources with relevant content on governance frameworks, strategic policy planning, and institutional accountability. As explained purposive sampling in qualitative research allows the researcher to select information-rich cases that best illuminate the questions under study (Patton, 2002).

The criteria for inclusion emphasized the availability of structured performance indicators, policy evaluation components, and institutional narratives suitable for SWOT-based analysis. Document analysis and qualitative content analysis were the primary data collection techniques, supported by tools such as SWOT matrices, coding frameworks,

and comparative tabulation methods. These tools were adapted from validated studies on public sector diagnostics and policy evaluation (Gurel, 2017; Leigh, 2010). Asserts, document analysis in qualitative research is instrumental for extracting contextual and institutional meaning from written sources, especially in policy evaluation (Bowen, 2009).

In applying the SWOT framework, the study adopts a model recognized for its efficacy in blending internal organizational data with external strategic variables, particularly in the context of public service innovation and governance improvement (Phadermrod et al., 2019). Thematic coding procedures followed a deductive logic aligned with SWOT constructs strengths, weaknesses, opportunities, and threats to facilitate cross-case synthesis and draw strategic inferences. This approach echoes the emphasis of (Creswell & Poth, 2016), who note that qualitative data analysis often involves coding the data, identifying themes, and interpreting patterns to arrive at a meaningful understanding.

The analytical process began with systematic extraction of performance results and policy indicators from LAKIP BP Batam, followed by the triangulation of insights from academic studies and regulatory documents. Triangulation, a key principle in qualitative validation, was used to enhance reliability and reduce bias by cross-verifying data from multiple sources (Denzin & Lincoln, 2011). To map the interrelationships between SWOT components and broader governance environments, cross-impact mapping was employed to identify leverage points and adaptive policy responses.

Ethical considerations included appropriate citation of secondary data, compliance with transparency in public sector research, and adherence to academic integrity. Since the study did not involve human participants, IRB approval was not applicable; however, the research conformed to best practices in qualitative inquiry, including data traceability and methodological rigor. By incorporating well-established qualitative methods and grounded policy evaluation tools, this study ensures that the findings are both theoretically valid and practically useful. The methodological framework adopted here provides a robust foundation for assessing governance challenges and potentials within Indonesia's evolving institutional landscape, particularly in special administrative regions like BP Batam.

RESULT AND DICUSSION

1.   Strategic Strengths of BP Batam

BP Batam demonstrates several organizational strengths that reflect its strategic positioning within Indonesia's special economic framework. First and foremost, the institution successfully surpassed all three of its key performance targets in 2024, including a 138.13% achievement in investment realization, an index of 87.02 for public satisfaction, and a 107.73% accomplishment in PNBP collection. These achievements are not only indicative of efficient institutional performance but also suggest a robust regulatory framework, agile investment facilitation, and effective coordination among units (Gurel, 2017). BP Batam's strategic geographic location near major international shipping routes also provides a strong comparative advantage . Moreover, the institution benefits from regulatory autonomy, enabling streamlined licensing through the PTSP (Pelayanan Terpadu Satu Pintu) system, which enhances investor confidence and shortens bureaucratic delays (Waheed et al., 2025).

BP Batam outstanding performance in surpassing its 2024 institutional targets reflects a significant consolidation of internal capabilities and a maturing governance framework within Indonesia's special economic zone policy. The achievement of 138.13% in investment realization, alongside a public satisfaction index of 87.02 and PNBP (Non-

Tax State Revenue) collection at 107.73%, demonstrates not only goal-oriented management but also highlights the effectiveness of outcome-based strategic planning. These results signal the operational efficiency of the agency in aligning institutional functions with national development goals, particularly in attracting and sustaining investment. Such performance metrics are often linked to high organizational accountability, inter-unit synergy, and the ability to adapt regulatory instruments to evolving economic demands.

Furthermore, BP Batam's comparative advantage is strongly reinforced by its strategic proximity to major international maritime routes, which enhances its value proposition to global investors (Waheed et al., 2025). This locational benefit, coupled with regulatory autonomy, allows the agency to implement streamlined administrative systems like PTSP (Pelayanan Terpadu Satu Pintu), which reduces transaction costs, accelerates service delivery, and enhances the investment climate. The PTSP model not only demonstrates institutional agility but also reflects Indonesia's broader ambition to promote ease of doing business, especially in high-potential economic enclaves. Such integration of spatial and regulatory advantages positions BP Batam as a frontrunner in subnational economic governance and a replicable model for other special economic zones in the region.

2.   Identified Institutional Weaknesses

Despite its achievements, BP Batam still faces a number of internal constraints. Among these are gaps in inter-agency coordination, limited digital integration for service provision, and insufficient public engagement mechanisms. For instance, while the PTSP system is operational, qualitative service feedback indicates varying levels of satisfaction across different directorates, such as water management (IKM 79.19) and land administration (IKM 88.09), suggesting inconsistent service quality (BP Batam, 2024). Additionally, internal fragmentation in asset utilization, especially under BLU (Badan Layanan Umum), suggests missed opportunities in operational optimization. These challenges align with the "focused SWOT" concept, which emphasizes the importance of identifying critical internal weaknesses that may be overshadowed by aggregated performance metrics (Coman & Ronen, 2009)

Despite BP Batam's strong macro-level performance, several critical internal challenges persist that may undermine long-term institutional effectiveness if left unaddressed. The disparity in satisfaction levels among different service directorates evidenced by the relatively lower IKM scores in water management (79.19) and land administration (88.09) signals inconsistencies in service delivery and highlights the need for a more integrated quality control mechanism (BP Batam, 2024). These gaps point to a lack of standardized service protocols and underscore the limitations of aggregated performance metrics in capturing sector-specific weaknesses (Samal & Dash, 2025). The "focused SWOT" approach urges organizations to move beyond generalized assessments and investigate siloed inefficiencies that may cumulatively affect institutional credibility and responsiveness.

Furthermore, the limited digital integration across BP Batam's operational systems presents a significant constraint, particularly in an era where digital governance is essential for transparency, accessibility, and efficiency. Although PTSP offers a streamlined licensing process, its full potential remains constrained by uneven adoption of digital tools across supporting directorates (BP Batam, 2024). Likewise, the lack of robust public engagement platforms limits feedback loops essential for participatory governance and adaptive service delivery (Syuzairi et al., 2024). The fragmentation in

asset utilization under the BLU framework exemplifies these inefficiencies, as it points to suboptimal resource alignment that could otherwise generate greater institutional value (Demir et al., 2016). Addressing these internal limitations requires not only technological upgrades and institutional restructuring, but also a cultural shift toward proactive inter-agency collaboration and citizen-centric governance (Michailidis et al., 2015).

3.   Emerging Opportunities in the Governance and Investment Landscape

There are multiple windows of opportunity for BP Batam to scale its performance and governance practices. The global shift towards regional economic integration, particularly through mechanisms like the Regional Comprehensive Economic Partnership (RCEP), places Batam in a strategic position to attract greater foreign investment (Phadermrod et al., 2019). The national push toward e-government and digital transformation also aligns with BP Batam's capacity to develop smart services in licensing, land use, and logistics (Canaj & Mehmeti, 2024). Additionally, public-private partnerships (PPP) in infrastructure development present opportunities for funding diversification and capacity building. As global investors increasingly prioritize sustainability, BP Batam can further capitalize on its island ecosystems by promoting eco-industrial clusters and green logistics concepts that are already proven in similar regional SWOT-based assessments (Jeelani & Shah, 2024; Nilashi et al., 2023)

BP Batam stands at a pivotal juncture where strategic alignment with global and national trends can serve as a catalyst for institutional transformation and investment acceleration. The integration into frameworks such as the Regional Comprehensive Economic Partnership (RCEP) offers Batam a unique geopolitical leverage to position itself as a hub for cross-border trade and high-value investment. This opportunity is amplified by Indonesia's national agenda for digital transformation, which provides a policy umbrella under which BP Batam can advance smart governance innovations, particularly in automating licensing, optimizing land use, and digitalizing logistical systems (Phadermrod et al., 2019). By leveraging these shifts, BP Batam can enhance operational transparency, reduce processing time, and build investor trust, aligning itself with best practices in global economic zone management (Miyagiwa, 1986)

.In parallel, the increasing international focus on sustainability opens a strategic window for BP Batam to develop competitive eco-industrial ecosystems. The island's geographic and environmental attributes present a compelling case for the promotion of green logistics corridors and renewable energy-powered industrial clusters (Jeelani & Shah, 2024). Emulating successful models from other regions, BP Batam could integrate sustainability frameworks into its investment offerings, catering to environmentally-conscious investors and aligning with ESG (Environmental, Social, and Governance) expectations. Public-private partnerships (PPP), especially in infrastructure and utilities, could further expand the agency's implementation capacity while diversifying funding sources and reducing fiscal burdens. Such hybrid development models not only foster resilience and innovation but also position economic zones as key players in the transition toward green economies.

4.   External Threats and Strategic Risks

BP Batam operates within a dynamic and occasionally volatile macro-environment. Key external threats include regional geopolitical uncertainty, regulatory overlaps between local and national authorities, and environmental degradation risks tied to urban and industrial expansion. The overlapping jurisdictional authority between the Batam Municipality and BP Batam can cause policy misalignment, which is particularly

risky in land allocation and infrastructure planning. Environmental vulnerabilities, including limited water supply and fragile coastal ecosystems, could also undermine long-term sustainability if not managed properly (Nejad et al., 2017; Pagot & Andrighetto, 2024). Moreover, the reliance on international trade and investment flows exposes BP Batam to global market shocks, a concern underscored during the COVID-19 pandemic and reinforced in post-pandemic SWOT analyses of regional governance resilience.

BP Batam's governance effectiveness is increasingly tested by the complexities of its external operating environment, where macro-level volatility intersects with localized regulatory fragmentation. The persistent jurisdictional overlap between BP Batam and the Batam Municipal Government creates governance friction, particularly in areas such as land allocation and infrastructure development, where policy incoherence can delay strategic initiatives and deter investors. These intergovernmental misalignments not only slow bureaucratic processes but also weaken institutional accountability, as stakeholders face conflicting regulatory directives. In the long run, this undermines policy predictability an essential factor for attracting sustainable investment and executing long-term urban development plans (Ghorbani et al., 2015; Palo et al., 2020)

In addition to institutional friction, BP Batam must contend with significant environmental and economic threats that challenge its resilience. The island's growing urban-industrial footprint places increasing stress on its natural resources, particularly water supply and coastal ecosystems, which are already vulnerable to degradation. Without comprehensive environmental safeguards and adaptive urban planning, these ecological pressures risk eroding Batam's livability and investment attractiveness. Furthermore, Such dependencies necessitate robust contingency frameworks and diversified economic strategies to ensure governance continuity in the face of global disruptions.

5.   Strategic Implications and Policy Recommendations

The SWOT analysis reveals that BP Batam's performance success in 2024 is not merely an outcome of efficient planning but also a function of institutional capability, regulatory leverage, and contextual opportunities. However, sustained excellence will require adaptive governance strategies that address both systemic weaknesses and emerging external risks. Based on the results, three policy recommendations are proposed:

a. Digital Governance Acceleration expanding the integration of digital platforms across directorates to ensure service quality uniformity and data transparency.
b. Stakeholder-Centered Governance involving civil society and local businesses more actively in planning and evaluation processes to strengthen legitimacy and responsiveness.
c. Regulatory Synchronization and Sustainability Alignment developing clearer regulatory frameworks to resolve jurisdictional conflicts and embedding environmental safeguards into investment planning.

By addressing these areas, BP Batam can transition from being a high-performing institution on paper to a model of inclusive, sustainable, and resilient governance in practice. The SWOT analysis underscores that BP Batam's performance success in 2024 is not solely attributed to strategic planning, but is deeply rooted in its institutional capacity, regulatory influence, and the ability to leverage contextual opportunities such as regional economic integration and digital transformation. Nevertheless, these strengths remain fragile unless reinforced by adaptive governance reforms that address internal inefficiencies, jurisdictional overlaps, and increasing environmental pressures.

The three policy recommendations Digital Governance Acceleration, Stakeholder-Centered Governance, and Regulatory Synchronization with Sustainability Alignment reflect a comprehensive approach to institutional strengthening. By advancing digital integration, fostering inclusive participation, and resolving regulatory fragmentation while embedding environmental considerations, BP Batam can evolve from a high-performing entity on paper into a resilient, inclusive, and sustainable model of public governance in practice.

Tabel 1. SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
Exceeded investment, satisfaction, and PNBP targets in 2024	Inconsistent service quality across units (e.g., BU SPAM)	Regional trade agreements like RCEP boost investment potential	Overlapping jurisdiction with local government
Strategic geographic location near international trade routes	Limited integration of digital services	Expansion of digital governance and smart services	Environmental degradation and resource limitations
Operational autonomy and PTSP-based licensing efficiency	Low public engagement and feedback mechanisms	Public-private partnerships for infrastructure and logistics	Exposure to global market fluctuations and geopolitical risks

Source: Author, 2025

Based on the SWOT analysis table, BP Batam demonstrates considerable internal strength in its operational structure and strategic positioning. The authority has successfully exceeded key targets related to investment realization, community satisfaction, and non-tax state revenue (PNBP), indicating a high level of institutional efficiency. Its geographic proximity to major international trade routes adds competitive advantage, particularly within the ASEAN region. The use of a One-Stop Integrated Service (PTSP) model allows for streamlined licensing processes, though the benefits of this system have not been consistently replicated across all departments, revealing disparities in internal capacity.

However, the internal weaknesses highlight several operational inefficiencies that risk undermining long-term institutional credibility. The inconsistent quality of service delivery across various units and the insufficient integration of digital governance tools suggest systemic fragmentation. Furthermore, public involvement remains low due to limited feedback mechanisms, which inhibits BP Batam's ability to incorporate citizen-oriented governance practices. These weaknesses, if left unaddressed, could result in a disconnect between planning outcomes and public expectations, thereby affecting the legitimacy of the institution.

On the external front, BP Batam is well-positioned to leverage global economic trends, particularly regional economic agreements such as RCEP and the growing emphasis on digital transformation. These trends create favorable conditions for expanding smart services and public-private infrastructure partnerships. Nevertheless, significant threats persist. Regulatory overlaps with local government bodies generate jurisdictional conflicts, while environmental degradation and susceptibility to global economic shocks exacerbated by Batam's heavy reliance on trade pose serious risks to sustainability. These external threats necessitate a more adaptive and integrative

approach to governance that aligns institutional strategy with both environmental and geopolitical realities.

CONCLUSION

This study set out to critically evaluate BP Batam's institutional performance in 2024 through a SWOT-based governance framework, with particular emphasis on investment realization, regulatory efficiency, and strategic sustainability. By integrating qualitative document analysis and SWOT matrix interpretation, the research identified BP Batam's internal strengths in surpassing investment and public service targets, while also uncovering areas of weakness such as fragmented service delivery and low digital integration. The external environment was found to offer both opportunities for regional trade and smart governance, as well as threats including jurisdictional overlap and ecological vulnerabilities. These findings confirm the relevance of applying SWOT as a diagnostic tool for public sector performance and underscore the institution's need for adaptive governance strategies.

Importantly, this study contributes to the existing literature by demonstrating how a nuanced, matrix-based SWOT analysis can be applied to public governance in a special economic zone context, particularly in Southeast Asia. It provides actionable insights for institutional reform, such as accelerating digital platform integration, enhancing participatory governance, and resolving overlapping regulatory jurisdictions. These practical implications are critical not only for BP Batam but also for other regional authorities striving to balance investment promotion with public accountability and environmental stewardship. The structured approach presented herein reinforces the role of integrative strategic analysis in shaping accountable and forward-looking governance systems.

REFERENCES
Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. https://doi.org/10.3316/QRJ0902027/FULL/XML
Canaj, K., & Mehmeti, A. (2024). Unveiling drivers and barriers in advancing agricultural wastewater reuse in Southern Italy: A SWOT analysis informed by stakeholder insights. *Cleaner Water*, 1, 100008. https://doi.org/10.1016/J.CLWAT.2024.100008
Coman, A., & Ronen, B. (2009). Focused SWOT: Diagnosing critical strengths and weaknesses. *International Journal of Production Research*, 47(20), 5677–5689. https://doi.org/10.1080/00207540802146130
Creswell, J. W., & Poth, C. N. (2016). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. In *Sage Publications*. Washington DC, United States of America: Sage publications.
Demir, S., Esbah, H., & AKGÜN, A. A. (2016). Quantitative SWOT analysis for prioritizing ecotourism-planning decisions in protected areas: Igneada case. *International Journal of Sustainable Development and World Ecology*, 23(5), 456–468. https://doi.org/10.1080/13504509.2015.1136709
Denzin, N. K., & Lincoln, Y. S. (2011). Grounded Theory Methods in Social Justice Research. In *The SAGE Handbook of Qualitative Research*. SAGE Publications. https://books.google.com/books/about/The_SAGE_Handbook_of_Qualitative _Researc.html?hl=id&id=qEiC-_ELYgIC

Ghorbani, A., Raufirad, V., Rafiaani, P., & Azadi, H. (2015). Ecotourism sustainable development strategies using SWOT and QSPM model: A case study of Kaji Namakzar Wetland, South Khorasan Province, Iran. *Tourism Management Perspectives*, 16, 290–297. https://doi.org/10.1016/j.tmp.2015.09.005

Görener, A., Toker, K., & Uluçay, K. (2012). Application of Combined SWOT and AHP: A Case Study for a Manufacturing Firm. *Procedia - Social and Behavioral Sciences*, 58, 1525–1534. https://doi.org/10.1016/j.sbspro.2012.09.1139

Gurel, E. (2017). SWOT Analysis: A Theoretical Review. *Journal of International Social Research*, 10(51), 994–1006. https://doi.org/10.17719/JISR.2017.1832

Imani, R. A. G., Sari, N. P., & Wulandari, S. P. (2024). SWOT Analysis of Indonesian Public Health Policy Using PCA Method. *Journal Governance Society* , 1(2), 112–121. https://doi.org/10.69812/JGS.V1I2.72

Jeelani, P., & Shah, S. A. (2024). Strategic insights for sustainable tourism development in Kashmir Valley: SWOT and QSPM analysis. *Environmental Development*, 52, 101092. https://doi.org/10.1016/J.ENVDEV.2024.101092

Kamran, M., Fazal, M. R., & Mudassar, M. (2020). Towards empowerment of the renewable energy sector in Pakistan for sustainable energy evolution: SWOT analysis. *Renewable Energy*, 146, 543–558. https://doi.org/10.1016/j.renene.2019.06.165

Khosravani, F., Abbasi, E., Choobchian, S., & Jalili Ghazizade, M. (2025). Optimizing food waste management in Tehran: A SWOT analysis and strategic recommendations. *Heliyon*, 11(4), e42474. https://doi.org/10.1016/J.HELIYON.2025.E42474

Leigh, D. (2010). SWOT Analysis. *Handbook of Improving Performance in the Workplace*, 2, 115–140. https://doi.org/10.1002/9780470592663.CH24

Longsheng, C., Ali Shah, S. A., Solangi, Y. A., Ahmed, M., & Ali, S. (2022). An integrated SWOT-multi-criteria analysis of implementing sustainable waste-to-energy in Pakistan. *Renewable Energy*, 195, 1438–1453. https://doi.org/10.1016/j.renene.2022.06.112

Mainali, B., Ngo, H. H., Guo, W. S., Pham, T. T. N., Wang, X. C., & Johnston, A. (2011). SWOT analysis to assist identification of the critical factors for the successful implementation of water reuse schemes. *Desalination and Water Treatment*, 32(1–3), 297–306. https://doi.org/10.5004/DWT.2011.2714

Michailidis, A., Papadaki-Klavdianou, A., Apostolidou, I., Lorite, I. J., Pereira, F. A., Mirko, H., Buhagiar, J., Shilev, S., Michaelidis, E., Loizou, E., Chatzitheodoridis, F., Restoy, R. C., & Lopez, A. L. (2015). Exploring Treated Wastewater Issues Related to Agriculture in Europe, Employing a Quantitative SWOT Analysis. *Procedia Economics and Finance*, 33, 367–375. https://doi.org/10.1016/S2212-5671(15)01721-9

Miyagiwa, K. F. (1986). A reconsideration of the welfare economics of a free-trade zone. *Journal of International Economics*, 21(3–4), 337–350. https://doi.org/10.1016/0022-1996(86)90045-0

Muzwardi, A., & Simbolon, G. (2024). SWOT and PEST analysis in tourism management in Bintan Regency. *Indonesian Tourism Journal*, 1(1), 82–92. https://doi.org/10.69812/ITJ.V1I1.21

Nagara, G., Lam, W. H., Lee, N. C. H., Othman, F., & Shaaban, M. G. (2015). Comparative SWOT Analysis for Water Solutions in Asia and Africa. *Water Resources Management*, 29(1), 125–138. https://doi.org/10.1007/S11269-014-0831-8

Nejad, M. A. R. S., Agha, F. N. J., & Zadeh, Y. F. (2017). QSPM Usage in SWOT Analysis as a Tool for Strategic Management of Caspian Sea Coasts (Case Study: Tourism

Development in Caspian Eastern Coast at Gilan Province). *Journal of Tourism Management Research*, 4(1), 1–11.

Nilashi, M., Ali Abumalloh, R., Keng-Boon, O., Wei-Han Tan, G., Cham, T. H., & Cheng-Xi Aw, E. (2024). Unlocking sustainable resource management: A comprehensive SWOT and thematic analysis of FinTech with a focus on mineral management. *Resources Policy*, 92, 105028. https://doi.org/10.1016/J.RESOURPOL.2024.105028

Nilashi, M., Ali Abumalloh, R., Mohd, S., Nurlaili Farhana Syed Azhar, S., Samad, S., Hang Thi, H., Alghamdi, O. A., & Alghamdi, A. (2023). COVID-19 and sustainable development goals: A bibliometric analysis and SWOT analysis in Malaysian context. *Telematics and Informatics*, 76. https://doi.org/10.1016/j.tele.2022.101923

Pagot, G., & Andrighetto, N. (2024). Fuel for collective action: A SWOT analysis to identify social barriers and drivers for a local woody biomass supply chain in an Italian alpine valley. *Heliyon*, 10(19). https://doi.org/10.1016/j.heliyon.2024.e38170

Palo, S., Kripalini, P., & Sanghamitra, P. (2020). Situation of labour room documentation at secondary level public health facilities of Cuttack district, Odisha, India – A SWOT analysis. *Journal of Family Medicine and Primary Care*, 9(7), 3308. https://doi.org/10.4103/JFMPC.JFMPC_376_20

Patton, M. Q. (2002). Qualitative research and evaluation methods. In *Qualitative Inquiry* (Vol. 3rd). SAGE. https://doi.org/10.2307/330063

Phadermrod, B., Crowder, R. M., & Wills, G. B. (2019). Importance-Performance Analysis based SWOT analysis. *International Journal of Information Management*, 44, 194–203. https://doi.org/10.1016/j.ijinfomgt.2016.03.009

Puyt, R. W., Lie, F. B., & Wilderom, C. P. M. (2023). The origins of SWOT analysis. *Long Range Planning*, 56(3). https://doi.org/10.1016/j.lrp.2023.102304

Reihanian, A., Mahmood, N. Z. B., Kahrom, E., & Hin, T. W. (2012). Sustainable tourism development strategy by SWOT analysis: Boujagh National Park, Iran. *Tourism Management Perspectives*, 4, 223–228. https://doi.org/10.1016/j.tmp.2012.08.005

Samal, R., & Dash, M. (2025). From strengths to strategies: Mapping the sustainable path for ecotourism in Chilika wetland through SWOT-QSPM analysis. *Journal for Nature Conservation*, 84. https://doi.org/10.1016/j.jnc.2024.126817

Srivastava, P. K., Kulshreshtha, K., Mohanty, C. S., Pushpangadan, P., & Singh, A. (2005). Stakeholder-based SWOT analysis for successful municipal solid waste management in Lucknow, India. *Waste Management*, 25(5), 531–537. https://doi.org/10.1016/j.wasman.2004.08.010

Syuzairi, M., Akhirman, A., Febriand Adel, J., Jalal, A., Wulandari, K., & Studi Akuntansi, P. (2024). Analisis SWOT Pemberdayaan Kelompok Sadar Wisata Di Desa Benan Kabupaten Lingga. *Khidmat: Journal of Community Service*, 1(1), 1–12. https://doi.org/10.31629/KHIDMAT.V1I1.6970

Waheed, A., Kousar, S., Khan, M. I., & Fischer, T. B. (2025). Expert perceptions on CPEC sustainability appraisal: SWOT analysis for informed policy decisions. *Environmental Science & Policy*, 164, 104009. https://doi.org/10.1016/J.ENVSCI.2025.104009