

Public Policy Transformation to Improve Community Welfare

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Abstract

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The transformation of public policy represents a comprehensive process of adaptation and innovation that seeks to enhance the quality of life and societal welfare in a sustainable manner. It encompasses not only the creation of entirely new policies but also the continuous improvement of existing frameworks to ensure their relevance in addressing evolving social, economic, and technological dynamics. This process relies heavily on participatory engagement, evidence based decision making, and governance systems capable of responding quickly to emerging challenges. Using a literature review approach, this study analyzes peer-reviewed journal articles published last five years to examine prevailing trends, effective strategies, and persistent challenges in public policy transformation. The results highlight technology integration, strengthened governance structures, and cross sector collaboration as essential drivers of success. Nonetheless, significant barriers remain, including bureaucratic resistance, resource constraints, and unequal digital access. The study offers a conceptual framework to guide policymakers in designing inclusive, adaptive, and future oriented strategies that deliver long term positive impacts.

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1. Introduction

Public policy plays a strategic role in determining the direction of development and the quality of life of a community. In an increasingly dynamic global context, public policy transformation has become an urgent necessity to address the evolving social, economic, political, and technological challenges. This transformation is not only interpreted as the process of formulating new policies, but also includes efforts to adapt, refine, and update existing policies to remain relevant to the ever-changing needs of the community.¹ This approach demands policymakers to have a long-term vision and the ability to respond to changes quickly, as changes in various sectors are now taking place with increasing intensity and complexity.

The shift in the public policy paradigm in the 21st century encourages a more inclusive, evidence-based, and responsive approach to public input. The principle of inclusivity requires all stakeholders to be actively involved, from the planning stage to policy evaluation. This necessitates active participation from the government, the private sector, academia, and civil society.² An evidence-based approach ensures that policies are formulated based on valid data and research, not merely on assumptions or short-term political considerations. The integration of information and communication technology is a key catalyst in accelerating the process of public

¹ Ines Mergel, Yiwei Gong and John Bertot, "Agile government: Systematic literature review and future research," *Government Information Quarterly* 35, no. 2 (2018): 294.

² Slava Jankin Mikhaylov, Marc Esteve and Averill Campion, "Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration," *Philosophical transactions of the royal society a: mathematical, physical and engineering sciences* 376, no. 2128 (2018): 8.

policy formulation, implementation, and evaluation, thereby improving the quality of decision-making.³

Community well-being, which is the ultimate goal of public policy, needs to be viewed comprehensively. Well-being indicators are not limited to economic aspects such as per capita income, but also include the quality of education, health, the environment, and social security.⁴ Development that emphasizes the balance between social, economic, and environmental dimensions is key to achieving long-term sustainability. Thus, public policy transformation must be directed at strengthening well-being in a broad sense, not only reducing poverty but also improving the overall quality of life.

In many countries, public policy reform often faces structural and cultural barriers. Obstacles such as bureaucratic resistance, limited resources, and a lack of coordination between agencies often slow down the transformation process.⁵ Bureaucratic resistance arises because policy changes often require adjustments to work procedures, a division of authority, or budget allocation that do not always align with the internal interests of the institution. Limited resources, whether funds, personnel, or infrastructure, can restrict the scope of policy implementation. Meanwhile, weak coordination between agencies can lead to duplication of programs

³ Chun-Liang Chen, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.

⁴ Joshua Newman, Adrian Cherney and Brian W. Head, "Policy capacity and evidence-based policy in the public service," *Public Management Review* 19, no. 2 (2017): 161.

⁵ Chun-Liang Chen, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.

or even conflicts of authority. To overcome these obstacles, an adaptive policy design and a transparent, accountable, and flexible governance system are needed to deal with the dynamics of change. One widely used approach is the multi-level governance model, which allows for cross-level and cross-sector coordination, so policies can be implemented in a more integrated manner.⁶

Public participation in the policy process is a determining factor for the success of transformation. The involvement of citizens is not only important for increasing the legitimacy of policies, but also for ensuring that the policies made truly reflect the needs and aspirations of the community. Public participation mechanisms can be carried out through open policy agenda setting, inclusive public consultations, and the involvement of the community in overseeing policy implementation. In the digital era, innovations such as e-participation and open government data provide a wider space for the public to contribute directly to policies that affect their lives.⁷ This technology allows the participation process to be more efficient, transparent, and accountable, while also opening up opportunities for multi-party collaborative policy innovation. Based on this description, this research aims to analyze various recent literatures (2017–2021) that discuss public policy transformation strategies to improve community well-being. The focus of the analysis is directed at three main aspects: the driving factors for successful transformation, the challenges faced in the

⁶ Ines Mergel, Yiwei Gong and John Bertot, "Agile government: Systematic literature review and future research," *Government Information Quarterly* 35, no. 2 (2018): 294.

⁷ Dorthe Hedensted Lund, "Co-creation in urban governance: From inclusion to innovation," *Scandinavian Journal of Public Administration* 22, no. 2 (2018): 8.

implementation process, and the strategies recommended based on empirical evidence from various studies.

2. Literature Review

Public policy transformation has been the focus of increasingly broad and in-depth research over the last two decades, especially as rapid social, economic, and technological changes require an appropriate policy response. The literature shows that successful policy changes are usually triggered by a combination of internal and external factors that influence each other. Internal factors include visionary leadership that can direct change, an adaptive bureaucratic capacity to face new challenges, and a systematic policy evaluation mechanism to ensure that every program carried out can be objectively measured for its success.⁸ Meanwhile, external factors include socio-economic dynamics that influence policy priorities, technological developments that change the way governments interact with the public, and global demands such as the sustainable development agenda that encourages the integration of environmental, social, and economic aspects.

Several studies highlight the importance of implementing evidence-based policies in the transformation process. This approach ensures that decisions are based on accurate empirical data and valid analysis, thereby minimizing the risk of

⁸ Slava Jankin Mikhaylov, Marc Esteve and Averill Campion, "Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration," *Philosophical transactions of the royal society a: mathematical, physical and engineering sciences* 376, no. 2128 (2018): 8.

implementation failure and increasing policy effectiveness.⁹ In addition, the application of good governance principles which include transparency, accountability, participation, and the rule of law has been proven to increase the legitimacy of policies in the eyes of the public, while strengthening public trust in the government.¹⁰

Information technology is also an important aspect widely discussed in the literature related to public policy transformation. The digitalization of public administration, the implementation of open government data, and the use of online participation platforms provide easy access to information, increase the efficiency of public services, and expand opportunities for community participation in the decision-making process.¹¹ Recent studies show that the success of policy digitalization is highly dependent on the readiness of technology infrastructure and the level of digital literacy of the community, so these two aspects must be the main focus in transformation planning.

In addition, public policy transformation is often associated with a collaborative approach. The multi-stakeholder governance model and public-private partnerships are considered effective in mobilizing resources, strengthening

⁹ Ines Mergel, Yiwei Gong and John Bertot, "Agile government: Systematic literature review and future research," *Government Information Quarterly* 35, no. 2 (2018): 294.

¹⁰ Joshua Newman, Adrian Cherney and Brian W. Head, "Policy capacity and evidence-based policy in the public service," *Public Management Review* 19, no. 2 (2017): 161.

¹¹ Chun-Liang Chen, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.

coordination, and accelerating policy innovation.¹² This collaboration allows for a more balanced sharing of risks and responsibilities between the government and non-governmental partners. However, the literature also notes significant obstacles in the transformation process, including resistance to change, overlapping regulations, budget limitations, and a lack of coordination between agencies.¹³ Therefore, the recommended strategy is holistic, combining technological innovation, strengthening governance, community participation, and an evidence based approach, in order to optimize public policy for the sustainable improvement of community well being.

3. Method

This research uses a qualitative literature review method which was chosen because it is considered the most appropriate for identifying, evaluating, and synthesizing findings from various previous studies that are relevant to the topic of public policy transformation for improving community well-being. The research process was carried out systematically starting from the literature search stage, selecting relevant sources, content analysis, to synthesizing the results. The first stage was source identification, which was carried out through searches on the Google Scholar database using the keywords “public policy transformation,” “community

¹² Dinoroy Marganda Aritonang, "The impact of e-government system on public service quality in Indonesia," *European Scientific Journal, ESJ* 13, no. 35 (2017): 103.

¹³ Louisa JM Jansen and Patrick P. Kalas, "Improving governance of tenure in policy and practice: A conceptual basis to analyze multi-stakeholder partnerships for multi-stakeholder transformative governance illustrated with an example from South Africa," *Sustainability* 12, no. 23 (2020): 14.

well-being,” “policy innovation,” and “public governance” with a publication limit in the 2017-2021 range. This time limit is intended so that the literature used remains relevant to current developments and challenges in the field of public policy. Furthermore, articles were selected based on inclusion criteria, namely articles published in reputable national and international journals, directly discussing the issue of public policy transformation related to efforts to improve community well-being, using empirical research methods or conceptual studies, and available in full text. Articles that are opinion pieces, in the form of media reports, or do not have a direct relevance to the research focus were excluded from the analysis process in accordance with the exclusion criteria.

The next stage was analysis and synthesis. The analysis was carried out by grouping the findings from the selected literature into three main themes, namely the driving factors for successful policy transformation, the challenges faced in the process, and the transformation strategies recommended by previous research. The synthesis of the results was carried out narratively to build a comprehensive and holistic conceptual framework, so that it can illustrate the relationship between variables that influence the success of public policy. To ensure the reliability of the study results, a validation process was carried out through cross-checking citations, which is checking the consistency of references and the suitability of data between the literary sources used. This step is important to minimize the risk of bias and ensure that the interpretation of the study results is based on valid scientific evidence. By utilizing literature from the last five years and through a systematic analysis process, this method allows researchers to gain an in-depth understanding of the

trends, challenges, and opportunities of public policy transformation that are relevant to current conditions, while providing a strong scientific basis for formulating more effective and sustainable policies.

4. Results

4.1. Driving Factors and Effective Strategies in Public Policy Transformation

The results of the analysis of journal articles published in the last five years show five main factors that consistently drive the success of public policy transformation to improve community well-being. These factors are interconnected and form an important foundation for effective policy formulation and implementation. Visionary and adaptive leadership is a very determining element for the direction of success. A study conducted by Mergel et al.¹⁴ underlines that leadership that is able to predict the direction of change, anticipate challenges, and proactively manage the policy adaptation process plays a crucial role in ensuring a smooth transformation. Visionary leaders not only set a strategic direction, but also facilitate cross-sector coordination, mobilize public support, and instill a culture of innovation within the bureaucracy. Adaptive leadership allows for a rapid response to the dynamics of social, economic, and technological changes, so that policies can always be relevant to the needs of the community.

¹⁴ Ines Mergel, Yiwei Gong and John Bertot, "Agile government: Systematic literature review and future research," *Government Information Quarterly* 35, no. 2 (2018): 294.

Meaningful public participation is a key factor in strengthening the legitimacy and relevance of policies. Lund,¹⁵ emphasizes that participation should not be merely symbolic, but must provide real space for the community to be actively involved in influencing the direction of policy. Mechanisms such as public hearings, focus group discussions, and e-participation have been proven to enrich the policy formulation process by incorporating citizens' perspectives and experiences. This kind of participation not only improves the quality of decisions, but also builds a sense of ownership from the community towards the resulting policies.

Integration of technology in government governance is a significant driver in increasing the effectiveness and efficiency of public policy. Research by Chen et al.,¹⁶ found that the digitalization of public services through the implementation of e-government, the provision of open government data, and the development of online service applications contributes to reducing transaction costs, increasing transparency, and accelerating services. This digital transformation opens up opportunities for the government to be more responsive, but its success is highly dependent on the readiness of technology infrastructure and the level of digital literacy of the community. Without the readiness of these two aspects, digitalization is at risk of creating a service gap (Wulf et al., 2017).

¹⁵ Dorthe Hedensted Lund, "Co-creation in urban governance: From inclusion to innovation," *Scandinavian Journal of Public Administration* 22, no. 2 (2018): 8.

¹⁶ Chun-Liang Chen, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.

Multi-stakeholder collaboration has been shown to accelerate policy innovation and expand the scope of resources. Jansen and Kalas,¹⁷ show that public-private partnerships, as well as cooperation with non-governmental organizations (NGOs) and academics, provide great opportunities to complement the strengths of each party. This kind of collaboration not only expands the available resources, but also allows for a more proportional sharing of risks in the policy implementation process. The multi-stakeholder governance model that is applied encourages the creation of synergy between parties with aligned goals, so that policy innovation can be implemented more quickly and sustainably. Evidence-based policy approach is an important foundation for ensuring the success of public policy transformation. Newman et al.¹⁸ state that policies formulated based on valid empirical data and evaluations of previous policies have a much higher probability of success. Decisions made by considering the factual context, future trends, and data-based predictions will be more targeted and have resilience to changes in the strategic environment.

Based on these five main factors, the literature recommends a number of strategies to strengthen the success of public policy transformation. These strategies include strengthening the capacity of human resources (HR) in the public sector to be able to adapt to technological developments and social dynamics, developing adaptive and flexible regulations to respond to changes quickly, optimizing the use

¹⁷ Louisa JM Jansen and Patrick P. Kalas, "Improving governance of tenure in policy and practice: A conceptual basis to analyze multi-stakeholder partnerships for multi-stakeholder transformative governance illustrated with an example from South Africa," *Sustainability* 12, no. 23 (2020): 14.

¹⁸ Joshua Newman, Adrian Cherney and Brian W. Head, "Policy capacity and evidence-based policy in the public service," *Public Management Review* 19, no. 2 (2017): 161.

of big data analytics in policy formulation, establishing a policy innovation unit that acts as a center for developing policy ideas and experiments, and making long-term investments in increasing community digital literacy. The implementation of this strategy is believed to increase the chances of success for public policy transformation that is oriented towards the sustainable improvement of community well-being.

4.2. Implementation Challenges and Their Impact on Community Well-being

Even though various driving factors for success have been clearly identified, the process of public policy transformation in practice is still faced with a variety of significant and complex obstacles. These obstacles not only hinder the pace of policy implementation, but can also reduce the effectiveness of the expected results, especially in efforts to improve community well-being. One of the main obstacles is resistance to change which often arises from a rigid bureaucracy and interest groups that feel threatened with losing their position or influence. As explained by Jansen and Kalas,¹⁹ this resistance is often structural and inherent in the long-established bureaucratic system, so the change process requires a great deal of time and effort to adjust. This resistance can appear in various forms, from process delays, rejection of new procedures, to efforts to maintain the status quo. As a result, the pace of new

¹⁹ Louisa JM Jansen and Patrick P. Kalas, "Improving governance of tenure in policy and practice: A conceptual basis to analyze multi-stakeholder partnerships for multi-stakeholder transformative governance illustrated with an example from South Africa," *Sustainability* 12, no. 23 (2020): 14.

policy implementation becomes slow, and in some cases can even stop completely before reaching the expected stage.

The second crucial challenge is the digital infrastructure gap. Chen et al.,²⁰ notes that significant differences in access and quality of technology between urban and rural areas create a real disparity in the application of technology-based policies. In urban areas, the adoption of digital-based policies is usually faster due to better infrastructure support and digital literacy. On the other hand, in rural or remote areas, limited internet networks, low ownership of technological devices, and minimal digital skills hinder the implementation process. This condition causes the benefits of technology-based public policies to be uneven and has the potential to widen the social gap.

The third obstacle is the weak coordination between agencies involved in the policy formulation and implementation process. That a lack of effective communication mechanisms and minimal policy integration between levels of government both at the central, regional, and inter-sectoral levels often leads to overlapping programs and policies. It is not uncommon for several agencies to run similar programs without any synergy, so resources are wasted and program effectiveness is reduced. This weak coordination not only affects technical implementation in the field, but can also obscure the overall strategic direction of the policy.²¹ Budget limitations are the next major obstacle in running public policy

²⁰ Chun-Liang Chen, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.

²¹ Karoline S. Rogge, Florian Kern, and Michael Howlett, "Conceptual and empirical advances in analysing policy mixes for energy transitions," *Energy research & social science* 33 (2017): 6.

transformation programs, especially those that are long-term. Mergel et al.²² affirm that funding problems often mean that well-designed policies can only be partially implemented or even stop halfway through. This condition is exacerbated by budget allocation priorities that often change following political dynamics or certain emergencies, so strategic programs lose their continuity.

The cumulative impact of these various challenges on community well-being is very significant. Delayed policy implementation means that positive changes are not immediately felt by the community, disparities in access to public services create a well-being gap between different community groups, and unfinished policies fail to provide sustainable benefits. This situation confirms the need for a comprehensive and planned mitigation strategy. Some recommended steps include implementing targeted change management in the bureaucracy to reduce resistance, investing in equitable digital infrastructure development across all regions, strengthening policy coordination mechanisms across sectors and levels of government, and implementing creative financing schemes through public-private partnerships. By systematically overcoming these obstacles, the chances of successful public policy transformation in improving community well-being will be greater and more sustainable.

²² Ines Mergel, Yiwei Gong and John Bertot, "Agile government: Systematic literature review and future research," *Government Information Quarterly* 35, no. 2 (2018): 294.

5. Discussion

The findings of the literature study show that public policy transformation is a very complex process, which requires the harmonious integration of various key elements such as visionary leadership, meaningful public participation, relevant technological innovation, cross-sector collaboration, and the application of an evidence-based approach. These five elements are interrelated and mutually reinforcing, but if they are not accompanied by effective management of challenges, these factors will not be able to have a significant impact on improving community well-being. Therefore, successful transformation requires careful planning, strong coordination, and continuous evaluation.

From a theoretical perspective, the results of this research are in line with the theory of policy change and innovation, which emphasizes that policy reform is the result of a dynamic interaction between external pressures such as globalization, technological developments, and international demands and the internal capabilities of a country or institution, including institutional capacity, resource availability, and the quality of leadership. For example, the literature confirms that digital transformation in public policy is not enough to just focus on providing technology. Changes in organizational culture are also needed so that the bureaucracy is willing, able, and ready to adopt a new system that is more efficient and transparent.²³

Public involvement is proven to be a distinguishing factor that determines the difference between policies that merely meet administrative requirements and

²³ Linda Susan Holbeche, "Shifts in organizational culture when implementing agility," *Journal of Creating Value* 5, no. 2 (2019): 131.

policies that truly have a real impact on people's lives. Policy co-creation mechanisms, which involve the community from the planning stage to evaluation, can improve the quality of policy substance while strengthening legitimacy and public trust in the government.²⁴ In this context, instruments such as e-participation and open data are not just technological innovations, but also tools for empowering the community to contribute to the decision-making process in a more transparent and accountable manner.

However, various challenges such as bureaucratic resistance and weak coordination between agencies show that there is a real gap between policy design on paper and implementation in the field.²⁵ This phenomenon is known as the implementation gap, which is a situation where well-designed policies do not produce optimal results when implemented. To overcome this, a more structured change management approach is needed, including human resource training, adjustment of work procedures, and the establishment of incentives and reward mechanisms that encourage the acceptance of change. The digital infrastructure gap also presents its own dilemma. Technology-based policies are indeed capable of accelerating public services and increasing efficiency, but without equitable access and digital literacy, they have the potential to widen social and economic disparities. Therefore, investment in the development of technology infrastructure and digital education needs to go hand in hand with the public policy reform agenda.

²⁴ Helena Leino and Eeva Puumala, "What can co-creation do for the citizens? Applying co-creation for the promotion of participation in cities, " *Environment and Planning C: Politics and Space* 39, no. 4 (2021): 787.

²⁵ Martin J Williams, "Beyond state capacity: bureaucratic performance, policy implementation and reform," *Journal of Institutional Economics* 17, no. 2 (2021): 344.

In practical terms, this finding implies the need to prepare a clear and measurable public policy transformation roadmap, which includes realistic targets, transparent success indicators, and an evaluation mechanism that can be adapted to environmental dynamics. This roadmap must be able to accommodate the flexibility of adaptation to change, while ensuring consistency with long-term goals that have been set. Thus, the success of public policy transformation depends on a careful balance between innovations that encourage rapid adaptation to change and sustainability that ensures every change provides a real, inclusive, and lasting impact on the improvement of community well-being.

6. Conclusion

Public policy transformation for the improvement of community well-being requires a holistic approach that combines technological innovation, good governance, community participation, and evidence-based policy. The literature analysis from the last five years shows that the driving factors for success include visionary leadership, cross-sector collaboration, and the integration of technology in the policy process. However, the success of transformation is not free from challenges such as bureaucratic resistance, the digital infrastructure gap, weak coordination between agencies, and budget limitations. Therefore, institutional reform strategies, increasing the capacity of human resources, and strengthening public participation are important steps that must be taken. This research provides a conceptual framework that can be used as a reference for policymakers to design public policies that are adaptive, inclusive, and oriented towards long-term results.

By overcoming existing obstacles and maximizing the driving factors, public policy transformation has the potential to make a significant contribution to the sustainable improvement of community well-being.

References

- Aritonang, Dinoroy Marganda. "The impact of e-government system on public service quality in Indonesia." *European Scientific Journal, ESJ* 13, no. 35 (2017): 99-111.
- Chen, Chun-Liang, Yao-Chin Lin, Wei-Hung Chen, Cheng-Fu Chao, and Henry Pandia. "Role of government to enhance digital transformation in small service business." *Sustainability* 13, no. 3 (2021): 1028.
- Holbeche, Linda Susan. "Shifts in organizational culture when implementing agility." *Journal of Creating Value* 5, no. 2 (2019): 124-138.
- Jansen, Louisa JM, and Patrick P. Kalas. "Improving governance of tenure in policy and practice: A conceptual basis to analyze multi-stakeholder partnerships for multi-stakeholder transformative governance illustrated with an example from South Africa." *Sustainability* 12, no. 23 (2020): 1-30.
- Leino, Helena, and Eeva Puumala. "What can co-creation do for the citizens? Applying co-creation for the promotion of participation in cities." *Environment and Planning C: Politics and Space* 39, no. 4 (2021): 781-799.
- Lund, Dorthe Hedensted. "Co-creation in urban governance: From inclusion to innovation." *Scandinavian Journal of Public Administration* 22, no. 2 (2018): 3-17.

- Mergel, Ines, Yiwei Gong, and John Bertot. "Agile government: Systematic literature review and future research." *Government Information Quarterly* 35, no. 2 (2018): 291-298.
- Mikhaylov, Slava Jankin, Marc Esteve, and Averill Campion. "Artificial intelligence for the public sector: opportunities and challenges of cross-sector collaboration." *Philosophical transactions of the royal society a: mathematical, physical and engineering sciences* 376, no. 2128 (2018): 1-21.
- Newman, Joshua, Adrian Cherney, and Brian W. Head. "Policy capacity and evidence-based policy in the public service." *Public Management Review* 19, no. 2 (2017): 157-174.
- Rogge, Karoline S., Florian Kern, and Michael Howlett. "Conceptual and empirical advances in analysing policy mixes for energy transitions." *Energy research & social science* 33 (2017): 1-10.
- Williams, Martin J. "Beyond state capacity: bureaucratic performance, policy implementation and reform." *Journal of Institutional Economics* 17, no. 2 (2021): 339-357.
- Wulf, Jochen, Tobias Mettler, and Walter Brenner. "Using a digital services capability model to assess readiness for the digital consumer." *MIS quarterly executive* 16, no. 3 (2017): 171-195.