



Evaluation of the Digital Population Identity (IKD) Policy in Improving the Quality of Public Services in Metropolitan Cities (A Case Study in Surabaya)

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ABSTRACT

This study aims to evaluate the Digital Population Identity (IKD) policy to enhance the quality of public services in Surabaya City. Utilizing the CIPP evaluation model (Context, Input, Process, Product) developed by Daniel Stufflebeam, this research provides a comprehensive analysis from various perspectives. A qualitative case study approach is employed to evaluate the IKD policy in Surabaya. Purposive sampling was used to select relevant informants, including policymakers, implementers, and policy recipients. Data were collected through in-depth interviews, participant observation, and document analysis, then analyzed thematically while ensuring data validity through triangulation. The context evaluation identifies complex administrative issues and the need to improve public service accessibility. Input evaluation highlights the importance of adequate budget support, technological infrastructure, and the capacity of human resources involved.

INTRODUCTION

Digital transformation in public services has become a priority agenda in many countries, including Indonesia, in efforts to enhance the efficiency, effectiveness, and quality of services provided to the public (OECD, 2015). One significant initiative in this context is the implementation of Digital Population Identity (IKD), aimed at replacing physical documents with digital identities that are easier to access and manage. In Surabaya, one of the largest metropolitan cities in Indonesia, the implementation of IKD is expected to have a positive impact on the quality of public services by enhancing efficiency, effectiveness, transparency, accountability, and public participation. Known for its public service innovations, Surabaya has taken a significant step in implementing IKD as a complement to the electronic ID card (e-KTP) (Kemendagri, 2023). Globally, the use of digital technology in population administration has proven to improve accessibility and efficiency in public services. However, low digital literacy and a lack of public understanding of IKD remain major challenges, especially for certain communities that may have less exposure to technology.

The main issue in this research is how the IKD policy can be evaluated to improve the quality of public services in Surabaya. Despite various efforts by the government to socialize the use of IKD, there are still segments of the population that do not fully understand how the system works and its benefits. This indicates a gap between the implemented policy and the public's understanding and readiness to adopt new technology. General solutions proposed include enhancing digital literacy through educational campaigns and providing better technological infrastructure (Pemkot Surabaya, 2024).

However, despite the extensive literature supporting the benefits of digital transformation, there is still limited research specifically evaluating the IKD policy in the context of Surabaya as a metropolitan city. This gap indicates the need for further research to understand how this policy can be optimized to improve the quality of public services.

The aim of this study is to evaluate the IKD policy in enhancing the quality of public services in Surabaya. The novelty of this research lies in its comprehensive approach to evaluating the impact of IKD from the perspective of service users, not just from the government's viewpoint. Thus, this research is expected to provide more effective and sustainable policy recommendations that consider the needs and perceptions of the public. The scope of this study includes an analysis of the implementation of IKD in Surabaya as a case study, which can offer valuable insights for other cities looking to implement similar policies.

LITERATURE REVIEW

A frequently used theory in public policy evaluation is the CIPP evaluation model (Context, Input, Process, Product) developed by Daniel Stufflebeam. This model provides a comprehensive framework for evaluating policies from various perspectives:

1. **Context:** Context evaluation involves assessing the environment in which the policy is implemented. This includes analyzing the issues the policy aims to address, the policy's objectives, and the needs and expectations of the community. In the context of IKD in Surabaya, context evaluation will assess how the policy is designed to address complex population administration issues and improve public services.
2. **Input:** Input evaluation focuses on the resources used to support policy implementation. This includes analyzing the budget, infrastructure, and human resources involved. In this study, input evaluation will examine how technological infrastructure and human resources support the implementation of IKD.
3. **Process:** Process evaluation assesses how the policy is implemented. This includes analyzing the procedures and mechanisms used to implement the policy. In the context of IKD, process evaluation will assess the effectiveness of digitalization procedures and how these processes affect public service efficiency.
4. **Product:** Product evaluation focuses on the outcomes and impacts of the policy. This includes analyzing the achievement of policy objectives and its impact on society. In this study, product evaluation will assess the extent to which IKD improves the quality of public services in Surabaya, including increased efficiency, effectiveness, transparency, accountability, and public participation.

The relevance of the CIPP evaluation model in this study lies in its ability to provide a comprehensive analysis of the IKD policy. By using the CIPP model, this study can evaluate the policy from various perspectives, from planning to final outcomes. This allows researchers to identify successes and challenges faced during policy implementation and provide recommendations for future policy improvements. The source of the CIPP evaluation model can be found in the work of Stufflebeam, D. L., & Zhang, G. (2017). *The CIPP Evaluation Model: How to Evaluate for Improvement and Accountability*. Springer. This model is relevant in public policy research because it provides a systematic and structured framework for evaluating various aspects of policy, from planning to implementation and outcomes.

Digital transformation in public services refers to the use of digital technology to enhance government service efficiency, effectiveness, and quality (Luna-Reyes & Gil-Garcia, 2014). In the context of IKD, digital transformation is expected to replace physical documents with digital identities, facilitating access and management of population data. The use of information and communication technology (ICT) in public administration has proven to increase service accessibility and efficiency (UN e-Government Survey, 2022).

Diffusion of Innovations Theory

Everett Rogers (2003) in the Diffusion of Innovations Theory explains that the adoption of new technology in society is influenced by five main characteristics: relative advantage, compatibility, complexity, trialability, and observability. In the context of IKD, relative advantage can be seen from ease of access and reduced administrative costs. Compatibility refers to the alignment of IKD with the values and needs of the Surabaya community. Complexity pertains to the ease of use of IKD technology. Trialability and observability relate to the community's ability to try and see the direct benefits of using IKD.

Green Governance Theory

Green governance emphasizes the principles of efficiency, transparency, accountability, public participation, and justice in sustainable governance (Sullivan & Williams, 2019). This theory is relevant in evaluating the IKD policy because it highlights the importance of good and inclusive governance in the implementation of digital technology. In the context of Surabaya, green governance can be used to assess how IKD contributes to increased transparency and accountability of public services.

E-Government Theory

E-Government theory, as outlined in the UN e-Government Survey (2022), provides a foundational framework for understanding how ICT is used to enhance government efficiency, effectiveness, transparency, and accountability. In this study, e-Government theory will be used to analyze IKD's contribution to the digital transformation process of public services in Surabaya. Aspects to be evaluated include reducing time and costs in accessing services, improving quality and public satisfaction, and the availability of easily accessible public information.

Public Participation Theory

Public participation is a key element in ensuring policies that are inclusive and responsive to community needs. Sherry Arnstein in "The Ladder of Citizen Participation" classifies public participation into three categories: non-participation, tokenism, and citizen power (Arnstein, 1969). In the context of IKD, public participation can be seen from the extent to which the community is involved in decision-making and service oversight, and how public input is used to improve policy quality.

Previous Research

Setyawan, Y. F., & Rudita, L. (2024). This study evaluates the implementation of the Digital Population Identity (IKD) Application Program in Desa Kebonwaris. The findings indicate that the program is quite effective with three indicators met: efficiency, adequacy, and feasibility. However, two indicators, namely equality and responsiveness, have not been met due to a lack of socialization and training, and low digital literacy among the community. Putri, B., & Reviandani, O. (2023). This study highlights the implementation of e-government through the Digital ID Card program in Kelurahan Dr. Soetomo, Surabaya. The findings indicate that the implementation of e-government is not

yet optimal due to a lack of information provided by village officials regarding the new policy on digital ID card activation before reprinting.

Suprojo, A., Rena, M. F., & Rohman, A. (2025). This study evaluates the effectiveness of the IKD Program services in Malang City. The findings show that IKD services are generally effective, but the expected output has not been achieved, with the target IKD activation not yet fulfilled. Supporting factors include clear policies, ready infrastructure, and competent staff, while barriers include diverse technological literacy, difficult activation processes, and limited mobile device compatibility. Amalia, H., & Hartono, T. (2024). This study examines the implementation of the IKD application in Pekanbaru City. The findings indicate that implementation does not yet meet expectations due to a lack of public knowledge, ease of innovation, and optimal application use.

The novelty of this research lies in its comprehensive approach to evaluating the impact of IKD from the perspective of service users, not just from the government's standpoint. While previous studies tend to focus on effectiveness and implementation from the perspective of policy and infrastructure, this study will explore the experiences and perceptions of the public as users. Thus, this research is expected to provide deeper insights and help formulate policy recommendations that are more responsive and aligned with community needs.

METHODOLOGY

The research methodology used to evaluate the Digital Population Identity (IKD) policy in Surabaya City employs a qualitative approach with a case study design. This approach allows for an in-depth exploration of specific phenomena within a real-world context, providing rich and detailed insights (Yin, 2018). The study utilizes purposive sampling to select informants, a technique that enables researchers to choose subjects most relevant and knowledgeable in the research context (Patton, 2002). The informants include three main groups: policymakers, policy implementers, and policy recipients (the general public using IKD services).

Data collection techniques in this study involve several methods to ensure depth and richness of information. First, in-depth interviews with informants are conducted to gain insights into their views and experiences related to the implementation of IKD (Kvale & Brinkmann, 2009). Second, participant observation is conducted in the field, particularly in public service offices, to understand the interactions between policy implementers and the public (Emerson et al., 1995). Third, document analysis of policy documents and official reports is carried out to understand the policy context (Bowen, 2009). The collected data is analyzed using thematic analysis, involving the identification and reporting of themes within the data (Braun & Clarke, 2006). Data validity is maintained through triangulation, member checks, audit trails, and reflexivity (Lincoln & Guba, 1985), ensuring a comprehensive evaluation of the IKD policy in Surabaya.

Research Findings

The CIPP evaluation model (Context, Input, Process, Product) developed by Daniel Stufflebeam provides a comprehensive framework for assessing policies from various perspectives, making it relevant for evaluating the IKD policy in Surabaya.

Context

Context evaluation aims to understand the environment in which the IKD policy is implemented. This includes analyzing the issues the policy seeks to address, such as dependency on physical documents and the need to improve public service accessibility. In Surabaya, this policy is designed to address complex population administration issues and enhance public service efficiency and effectiveness. Context evaluation also considers external factors such as political support and community readiness to embrace digital changes.

Input

Input evaluation focuses on the resources used to support the implementation of the IKD policy. This involves analyzing the allocated budget, available technological infrastructure, and the capacity of human resources involved in policy execution. In Surabaya, input evaluation must ensure that the budget is sufficient to support the necessary technological infrastructure and that the workforce involved has the adequate skills to effectively operate the IKD system.

Process

Process evaluation assesses how the IKD policy is implemented. This involves analyzing the procedures and mechanisms used to implement the policy and the effectiveness of digitalization in enhancing public service efficiency. The implementation process in Surabaya should be evaluated based on adherence to established standards and the ability to overcome technical and operational challenges. This evaluation should also consider the interaction between policy implementers and service recipients, as well as how community feedback is used to improve services.

Product

Product evaluation focuses on the outcomes and impacts of the IKD policy. This includes analyzing the achievement of policy objectives and its impact on society, including improvements in efficiency, effectiveness, transparency, accountability, and public participation. In Surabaya, product evaluation should assess whether the IKD policy has achieved its set objectives and its impact on community welfare. This evaluation should also consider the sustainability of the achieved results and the potential for replication in other areas.

Using the CIPP evaluation model, it can be concluded that the IKD policy in Surabaya has positively impacted the quality of public services. Context evaluation shows that the policy is relevant to the community's needs. Input evaluation highlights the importance of budget and infrastructure support. Process evaluation indicates that digitalization has enhanced efficiency, although technical challenges need to be addressed. Product evaluation shows that IKD has improved transparency and accountability and encouraged greater public participation. Thus, the IKD policy in Surabaya can be considered successful in improving public service quality, although there are areas that require further improvement and adjustment.

Research by Rafiqi, I., & Selviyanti, N. H. (2021) evaluated the effectiveness of e-budgeting implementation in the Surabaya City Government using the CIPP model. The findings indicate that e-budgeting is worth continuing because it has proven effective in enhancing budget transparency and accountability. In terms of context, e-budgeting successfully achieved goals in transparency and accountability. Regarding input, the facilities and infrastructure used are adequate, and there has been improvement in human resources. In terms of process, e-budgeting addresses challenges in budget preparation, particularly in reducing input errors and RKA preparation. In terms of product, e-budgeting improves the quality of indicator development in realizing good governance. This study supports the importance of comprehensive policy evaluation using the CIPP model to measure the effectiveness of public policy implementation.

SW, R. K. P., & Prasetyo, P. S. (2024) evaluated the Adolescent Health Care Service Program at Puskesmas Sukapakir, Bandung City, using the CIPP model perspective. The findings show that the program is supported by adequate human resources, funding, and available facilities and infrastructure. Process evaluation shows that the program is implemented on time every quarter and effectively combines the Adolescent Health Care Service Program with other programs. In product evaluation, the program is considered quite successful, although some sectors have not developed significantly. This study emphasizes the importance of comprehensive evaluation to understand the strengths and weaknesses of the program and provide recommendations to enhance program effectiveness in the future.

Findings from these studies support the importance of using the CIPP evaluation model in evaluating public policies, including the IKD policy in Surabaya. The CIPP model provides a comprehensive framework for assessing policies from various perspectives, from context, input, process, to product. In the context of IKD, context evaluation can help understand how the policy is designed to address population administration issues and improve public services. Input evaluation can assess whether the available resources and infrastructure are adequate to support policy implementation. Process evaluation can identify barriers in policy implementation and how the policy can be optimized. Finally, product evaluation can assess the extent to which the IKD policy has achieved its objectives and its impact on the community.

By using the CIPP model, this study can provide an in-depth analysis of the effectiveness of the IKD policy in Surabaya. Findings from previous studies show that the CIPP model is effective in evaluating various aspects of public policy and can provide valuable insights to improve public service quality. This approach is expected to help identify key elements that contribute to the success or failure of the policy and provide recommendations for improving policy implementation in the future.

RESEARCH RESULT AND DISCUSSION

The digital transformation in public services in Surabaya City through the implementation of Digital Population Identity (IKD) is a strategic step to enhance the efficiency and effectiveness of population administration services. To evaluate the success of this policy, the CIPP evaluation model (Context, Input, Process, Product) developed by Daniel Stufflebeam is used as a comprehensive framework. This model allows for an in-depth analysis from various policy perspectives, which is relevant for evaluating the IKD policy in Surabaya.

Context

Context evaluation aims to understand the environment in which the IKD policy is implemented. This involves identifying the issues the policy seeks to address, such as dependency on physical documents and the need to improve public service accessibility. In Surabaya, the IKD policy is designed to address complex population administration issues and enhance public service efficiency and effectiveness. Context evaluation also considers external factors like political support and community readiness to embrace digital changes. Strong political support and community readiness are crucial factors that can influence the success of policy implementation. Therefore, it is important to ensure that the IKD policy is supported by an adequate regulatory framework and receives backing from various stakeholders.

Input

Input evaluation focuses on the resources used to support the implementation of the IKD policy. This includes analyzing the allocated budget, available technological infrastructure, and the capacity of human resources involved in policy execution. In Surabaya, input evaluation must ensure that the budget is sufficient to support the necessary technological infrastructure and that the workforce involved has the adequate skills to effectively operate the IKD system. Adequate technological infrastructure, such as a stable internet network and appropriate hardware, is essential to support the policy's implementation. Additionally, training and development of human resources should be prioritized to ensure that the workforce possesses the skills needed to operate the IKD system and provide optimal services to the public.

Process

Process evaluation assesses how the IKD policy is implemented. This includes analyzing the procedures and mechanisms used to implement the policy and the effectiveness of digitalization in enhancing public service efficiency. The implementation process in Surabaya should be evaluated based on adherence to established standards and the ability to overcome technical and operational challenges. This evaluation should also consider the interaction between policy implementers and service recipients, as well as how community feedback is used to improve services. In this context, it is important to ensure that digitalization procedures align with established standards and that there are effective mechanisms for handling complaints and feedback from the public. The use of digital technology should facilitate better interaction between the government and the public, as well as improve the efficiency and quality of services provided.

Product

Product evaluation focuses on the outcomes and impacts of the IKD policy. This includes analyzing the achievement of policy objectives and its impact on society, including improvements in efficiency, effectiveness, transparency, accountability, and public participation. In Surabaya, product evaluation should assess whether the IKD policy has achieved its set objectives and its impact on community welfare. This evaluation should also consider the sustainability of the achieved results and the potential for replication in other areas. In this regard, it is important to assess the extent to which IKD has successfully improved the quality of public services and whether this policy can be adopted by other cities with similar characteristics. The success of the IKD policy in Surabaya can serve as an example for other regions looking to implement similar policies to enhance public services.

Using the CIPP evaluation model, it can be concluded that the IKD policy in Surabaya has positively impacted the quality of public services. Context evaluation shows that the policy is relevant to the community's need for more efficient and effective services. Input evaluation highlights the importance of adequate budget and infrastructure support to facilitate policy implementation. Process evaluation indicates that digitalization has enhanced service efficiency, although there are technical challenges that need to be addressed. Product evaluation demonstrates that IKD has increased transparency and accountability, as well as encouraged greater public participation. Thus, the IKD policy in Surabaya can be considered successful in improving public service quality, although there are areas that require further improvement and adjustment. This approach provides deeper and holistic insights into how IKD affects the quality of public services in Surabaya.

CONCLUSIONS AND RECOMMENDATIONS

The IKD policy in Surabaya can be considered successful in enhancing the quality of public services, although there are areas requiring further improvement and adjustment. Context evaluation shows that the policy is relevant to the community's needs, while input evaluation highlights the importance of adequate budget and infrastructure support. Process evaluation indicates that digitalization has improved service efficiency, despite technical challenges that need to be addressed. Product evaluation demonstrates that IKD has enhanced transparency and accountability, as well as encouraged greater public participation.

Using the CIPP evaluation model, this study provides a comprehensive analysis of the IKD policy in Surabaya. The findings indicate that the IKD policy has significant potential to improve public service quality. However, to achieve optimal results, further efforts are needed to enhance digital literacy among the public, strengthen technological infrastructure, and ensure that the policy is supported by an adequate regulatory framework. This approach offers deeper and holistic insights into how IKD affects the quality of public services in Surabaya and provides recommendations for future policy implementation improvements.

Based on the evaluation of the Digital Population Identity (IKD) policy in Surabaya City, the following are three recommendations to enhance the effectiveness and sustainability of the policy:

1. Enhancement of Public Digital Literacy

The low level of digital literacy remains a major challenge in the implementation of IKD. The city government should organize digital literacy training programs targeting various community groups, especially vulnerable groups such as the elderly and those with limited access to technology. These training sessions can be conducted in collaboration with educational institutions and local communities to improve public understanding of digital technology and IKD services.

2. Strengthening Technological Infrastructure

Adequate technological infrastructure is crucial for the successful implementation of IKD. The city government must ensure the availability of a stable internet network and adequate hardware throughout Surabaya. Additionally, increasing server capacity and security systems is necessary to support the effective operation of IKD. Investment in this infrastructure should be a priority to ensure easy and secure access for the public.

ADVANCED RESEARCH

Still conducting further research to find out more about Evaluation of the Digital Population Identity (IKD) Policy in Improving the Quality of Public Services in Metropolitan Cities (A Case Study in Surabaya).

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