



E-Government and Bureaucratic Reform: Pathways to Inclusive Public Service Innovation in Indonesia

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Abstract

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The growing societal demand for more efficient, transparent, and high-quality public services has encouraged the Indonesian government to innovate through digitalization and bureaucratic reform. This literature review aims to analyze the role of public service innovation based on e-government and the principles of good governance in improving service quality and strengthening public trust. The study employs a literature review method, examining prior research. The findings indicate that public service innovation is not only influenced by technological factors but also by governance, the competence of civil servants, and community participation. The implementation of e-government has been proven to enhance efficiency, transparency, and accountability, although challenges such as the digital divide, low digital literacy, and bureaucratic resistance remain. This review highlights the importance of collaborative strategies, the capacity building of civil servants, and the development of adaptive regulations. The study implies that digitalizing public services must be accompanied by strengthening governance and inclusivity to meet public needs sustainably.



1. Introduction

The global changes currently underway, particularly with the rapid development of digital technology, have significant consequences for how the public sector delivers services. The demands of modern society for public services that are faster, transparent, easily accessible, and high-quality, are pushing the government to undertake fundamental transformation. Public service is no longer perceived merely as an administrative obligation or bureaucratic routine, but has become a concrete representation of the state's responsibility to demonstrate its alignment with the community. In Indonesia, this phenomenon is increasingly felt, in line with the growing community need for services that are inclusive, adaptive, and capable of adjusting to the times and social dynamics.¹

One important strategy adopted to answer this challenge is through the process of service digitalization. The concept of e-government, initially only intended as a means of increasing the effectiveness and efficiency of governance, has now evolved into the main instrument for delivering public service innovation. In Indonesia itself, the implementation of e-government shows positive achievements in improving service quality and increasing bureaucratic efficiency. For instance, Sufianti et al.² found that digitalization through e-government contributes to increased public participation in governance while strengthening bureaucratic

¹ Dodi Faedlulloh, Syamsul Maarif, Intan Fitri Meutia, and Devi Yulianti. "Birokrasi dan Revolusi Industri 4.0: Mencegah Smart ASN menjadi Mitos dalam Agenda Reformasi Birokrasi Indonesia: Bureaucracy and Industrial Revolution 4.0: Preventing The Myth of Smart ASN In Indonesia's Bureaucratic

² Ely Sufianti, Edah Jubaedah, and Sait Abdullah. "Building sustainability of public service innovation in Bandung city, West Java, Indonesia." In *2nd International Conference on Administration Science 2020 (ICAS 2020)*, pp. 19-24. Atlantis Press, 2021.

transparency. However, the research also asserts that obstacles still exist, particularly concerning the uneven digital literacy across all regions.

On the other hand, the success of digital-based public service innovation is highly influenced by the principles of good governance. Without accountability, transparency, and active public participation, the use of digital technology potentially becomes merely an administrative instrument, without significantly impacting the increase in public trust. Sulistya et al.³ explain that the digitalization of public services in Indonesia can produce tangible public value if supported by a clear, strong governance system, accompanied by collaboration among stakeholders. In other words, digital technology requires a regulatory framework and multi-party partnership patterns to be able to drive the improvement of service quality while enhancing the relationship between government and the community.

Although digitalization shows a positive direction, the implementation of technology-based public services in Indonesia still faces several serious constraints. Frequent challenges include the limited competence and professionalism of the civil servants (*Aparatur Sipil Negara/ASN*), resistance to change, and the uneven distribution of digital infrastructure, especially in remote areas. Aritonang,⁴ asserts that although the concept of e-government has been adopted for quite some time, the quality of public services in Indonesia is not evenly distributed across all regions.

³ Adi Qumara Wahyu Sulistya, Bernardus Bastian Sulistiyo, Faizan Aditya, Imelda Doharta Aritonang, Stephen Amos Simangunsong, Muhammad Rifki Shihab, and Benny Ranti. "A case study of Indonesian government digital transformation: Improving public service quality through E-government implementation." In *2019 5th International Conference on Science and Technology (ICST)*, vol. 1, pp. 1-6. IEEE, 2019.

⁴ Dinoroy Marganda Aritonang. "The impact of e-government system on public service quality in Indonesia." *European Scientific Journal, ESJ* 13, no. 35 (2017): 99-111.

This is due to the weak coordination among institutions and the digital access gap, causing communities in certain areas not to enjoy services equivalent to those in urban areas.

The government, through the bureaucratic reform program, attempts to answer these challenges. The Presidential Instruction delivered through the Ministry of (*Pendayagunaan Aparatur Negara dan Reformasi Birokrasi /PANRB*) emphasizes the importance of digital transformation as a main part of creating a bureaucracy that is responsive, efficient, and accountable. One innovation developed is the digital Public Service Mall (*Mal Pelayanan Publik/ MPP*), designed to simplify procedures, accelerate access, and provide integrated services that are more easily reached by the community. This initiative, according to Amatulloh,⁵ is an innovative strategy that not only cuts bureaucratic lines but also supports the equitable openness of public service access.

Thus, this study focuses on reviewing in depth how public service innovation through the approach of digitalization and the application of good governance principles can strengthen the bureaucratic reform agenda in Indonesia. The main focus is directed towards a review of recent literature discussing the role of digital technology, the effectiveness of e-government implementation, and the urgency of transparent and collaborative governance. Through this analysis, it is hoped to understand how digitalization and good governance directly contribute to improving

⁵ Dhani Amatulloh. "Analisis Penerapan E-Government Dalam Peningkatan Kualitas Pelayanan Administrasi Kependudukan Pada Mal Pelayanan Publik Bojonegoro." *Dialogue: Jurnal Ilmu Administrasi Publik* 3, no. 2 (2021): 87-107.

the quality of public services, while also becoming an important foundation for realizing adaptive and publicly trusted governance.

2. Literature Review

The literature review regarding public service innovation in Indonesia consistently emphasizes the role of e-government as a key instrument in driving bureaucratic transformation toward a more modern and responsive system. As explained by Sufianti et al.⁶ the implementation of the e-government concept has proven to contribute to improved information transparency, strengthened accountability in service delivery, and enhanced the quality of services received by the public. Nevertheless, this implementation still faces serious constraints, particularly related to the low level of digital literacy and limited supporting infrastructure, both of which are the most dominant inhibiting factors. In line with this, Sulistyia et al.⁷ underline that the success of public service digitalization is closely linked to the quality of governance. Without the principles of good governance and the support of multi-party collaboration, digitalization efforts will find it difficult to achieve optimal results.

Besides external problems, the challenges of Indonesian bureaucracy also stem from internal factors. The low professionalism of civil servants (ASN),

⁶ Ely Sufianti, Edah Jubaedah, and Sait Abdullah. "Building sustainability of public service innovation in Bandung city, West Java, Indonesia." In *2nd International Conference on Administration Science 2020 (ICAS 2020)*, pp. 19-24. Atlantis Press, 2021.

⁷ Adi Qumara Wahyu Sulistyia, Bernardus Bastian Sulistiyo, Faizan Aditya, Imelda Doharta Aritonang, Stephen Amos Simangunsong, Muhammad Rifki Shihab, and Benny Ranti. "A case study of Indonesian government digital transformation: Improving public service quality through E-government implementation." In *2019 5th International Conference on Science and Technology (ICST)*, vol. 1, pp. 1-6. IEEE, 2019.

resistance to change, and a highly hierarchical organizational culture often become obstacles in realizing a modern bureaucracy. Aritonang,⁸ emphasizes that even though the e-government system has been introduced for a long time, the results achieved are not yet fully in line with expectations. This occurs due to weak inter-institutional coordination, as well as a gap in service quality between regions. This condition shows that the success of innovation is not only determined by the sophistication of the technology used but also requires fundamental changes in bureaucratic culture and organizational behavior. The same is affirmed by Sofianto,⁹ who emphasizes that bureaucratic transformation demands an adjustment of work culture to align with the spirit of innovation.

From the good governance perspective, public service digitalization is believed to be able to strengthen the application of principles of transparency, accountability, participation, and effectiveness in governance. Aminah and Saksono,¹⁰ argue that the utilization of innovative technology in public administration encourages institutional transformation by generating work efficiency and service acceleration. However, Tasyah et al.¹¹ remind that without adaptive regulation and public involvement, digital innovation potentially only speeds up

⁸ Dinoroy Marganda Aritonang. "The impact of e-government system on public service quality in Indonesia." *European Scientific Journal, ESJ* 13, no. 35 (2017): 99-111.

⁹ Arif Sofianto. "Inovasi layanan berbasis teknologi informasi pada rumah sakit sebagai bentuk reformasi birokrasi." *Jurnal Litbang Provinsi Jawa Tengah* 18, no. 1 (2020): 81-102.

¹⁰ Sitti Aminah and Herie Saksono. "Digital transformation of the government: A case study in Indonesia." *Jurnal Komunikasi: Malaysian Journal of Communication* 37, no. 2 (2021): 272-288.

¹¹ Amelia Tasyah, Sabrina Jasriyani Putri Septiya, Reza Agung Fernanda, and Putri Chesilia. "Best practice kebijakan e-government dalam mengimplementasikan pelayanan publik di era new normal (Best practice of e-government policies in implementing public services in the new normal era)." *Jurnal Studi Ilmu Sosial Dan Politik (Jasipol)* 1, no. 1 (2021): 21-33.

technical procedures, but does not provide real improvement in public service quality. Therefore, the success of digitalization must be supported by a clear and adaptive regulatory system while encouraging active public participation.

In addition to the governance aspect, the literature also pays special attention to the importance of inclusivity in digital-based public services. Facts show that obstacles in the form of an access gap still occur, especially in remote areas that do not yet have adequate infrastructure. This condition leads to inequality in enjoying technology-based public services. Therefore, the strategy of developing digital infrastructure and improving public literacy becomes a crucial agenda that cannot be ignored. These efforts will determine the extent to which digitalization can reach all segments of society equitably.

Thus, the literature review asserts that public service innovation in Indonesia is a multi-dimensional process. This process demands the integration of the utilization of digital technology, the application of good governance principles, the strengthening of human resource quality, and active public involvement. Synergy from these four aspects becomes an important requirement for digitalization to truly strengthen bureaucratic reform while improving the quality of equitable and inclusive public services.

3. Method

This research uses the literature review method by deeply examining various relevant and available online scientific articles, academic publications, and journals. The selection of the study period is determined based on the relevance of the current

context, especially in relation to the acceleration of public service digitalization in the Industry 4.0 era and post-COVID-19 pandemic. This condition demands fundamental changes in the public service system to be able to adapt to the community's increasingly technology-based needs. The literature review method was chosen because it can provide a comprehensive overview of trends, challenges, and strategies for public service innovation without requiring direct field research.

The literature sources used in this research were obtained through academic databases, both national and international, utilizing access to Google Scholar and Research Gate. The search focus was directed towards articles discussing the topics of e-government, bureaucratic digitalization, innovation in public services, and the principles of good governance in Indonesia. The selected articles were then analyzed thematically by identifying key issues, significant findings, and their relevance to the context of public services in Indonesia. This approach allows for comparison between various academic views, thus producing a deeper and more structured synthesis of knowledge.

The literature analysis process was carried out through several stages. First, the researcher identified keywords such as public service innovation, e-government, digital governance, bureaucracy reform, and good governance. Second, articles were selected by considering the relevance criteria to the research focus, specifically those discussing practices and challenges in the Indonesian context. Third, the collected literature was then grouped thematically based on specific issues, such as governance, civil servant competence, public participation levels, and the problem of the digital divide still occurring in various regions.

Through this approach, the research can assess the extent to which the theory and practice of public service innovation are developing in Indonesia. Additionally, this method is also beneficial for identifying gaps or knowledge discrepancies that still require further research. The results of the literature review are expected to provide important contributions, both conceptually in the development of public administration science, and practically in supporting government policy formulation. Specifically, the findings of this study are expected to enrich the understanding of academics and practitioners regarding bureaucratic reform and the implementation of public service digitalization in Indonesia.

4. Results

4.1. Public Service Innovation and Digitalization

The results of the literature review show that digitalization currently occupies a strategic position as one of the main approaches in accelerating public service innovation in Indonesia. The utilization of digital technology through e-government implementation is proven to provide a positive impact on service quality, especially by presenting an administrative system that is faster, transparent, accountable, and efficient. According to the findings of Sufianti et al.¹² the application of e-government is capable of increasing the accessibility of public services while expanding the reach of services to the community. Nevertheless, the research also indicates that obstacles in the form of low digital literacy in the community remain

¹² Ely Sufianti, Edah Jubaedah, and Sait Abdullah. "Building sustainability of public service innovation in Bandung city, West Java, Indonesia." In *2nd International Conference on Administration Science 2020 (ICAS 2020)*, pp. 19-24. Atlantis Press, 2021.

a fundamental problem that requires serious attention from the government. Without an increase in digital literacy capacity, technology-based public service transformation is difficult to achieve equitable success.

In line with this, Sulistya et al.¹³ emphasize that digitalization cannot be understood merely as a technical effort focused on technology implementation. Furthermore, the success of public service digitalization highly depends on good governance and active public involvement. This means technology is only an instrument; the determining factor lies in how the governance system is built with principles of transparency, accountability, and strong participation. Without clear governance support and multi-party collaboration, the utilization of technology risks merely producing new procedures without presenting significant improvements to service quality.

The Indonesian government, through the Ministry of State Apparatus Empowerment and Bureaucratic Reform (PANRB), has launched various strategic initiatives directed at strengthening digitalization. One prominent program is the digital Public Service Mall (MPP). This program aims to unite various public services from across institutions in one integrated platform, allowing the public to obtain services more easily, quickly, and efficiently. The digital MPP innovation is believed not only to simplify bureaucratic procedures but also to improve service quality by cutting convoluted bureaucratic paths. Nevertheless, serious obstacles are still

¹³ Adi Qumara Wahyu Sulistya, Bernardus Bastian Sulistiyo, Faizan Aditya, Imelda Doharta Aritonang, Stephen Amos Simangunsong, Muhammad Rifki Shihab, and Benny Ranti. "A case study of Indonesian government digital transformation: Improving public service quality through E-government implementation." In *2019 5th International Conference on Science and Technology (ICST)*, vol. 1, pp. 1-6. IEEE, 2019.

encountered, including the digital divide between regions, limited and uneven infrastructure, and the resistance of some bureaucracy to change. Aritonang¹⁴ highlights that although the e-government system has been adopted for a long time, its implementation results are still not optimal and uneven across all regions, mainly due to weak coordination and the quality disparity of services between regions.

Beyond technical aspects, the literature also underlines that the success of public service digitalization is influenced by the readiness of human resources and bureaucratic organizational culture. Civil servants (ASN) are required not only to master technical skills but also to have a commitment to professionalism and mental readiness to adapt to change.¹⁵ Resistance to innovation often arises because of a still hierarchical and rigid bureaucratic culture, thus slowing down the transformation process. Thus, digital transformation demands systemic change that concerns not only technology but also touches upon institutional aspects and bureaucratic behavior.

The COVID-19 pandemic provided an important momentum that accelerated the process of public service digitalization in Indonesia. The emergency situation pushed various government institutions to immediately adopt online-based services to ensure the continuity of services to the public. This experience shows that innovation in public services often originates from urgent conditions that demand the government move quickly and adaptively. Although initially reactive,

¹⁴ Dinoroy Marganda Aritonang. "The impact of e-government system on public service quality in Indonesia." *European Scientific Journal, ESJ* 13, no. 35 (2017): 99-111.

¹⁵ Benedicta Retna Cahyarini and Ladiatno Samsara. "The challenges of digital competency implementation towards world-class bureaucracy." *Jurnal Borneo Administrator* 17, no. 2 (2021): 259-274.

the acceleration of digitalization during the pandemic actually became an important catalyst for long-term change towards a more modern service system. This experience simultaneously confirms that a crisis can be a trigger for sustainable structural transformation if followed by careful planning and the strengthening of governance.

Thus, the results of the literature review affirm that digital-based public service innovation in Indonesia is a complex and multidimensional process. E-government implementation has shown great potential in improving service quality, but its success is still determined by the combination of various factors, including support for good governance, human resource readiness, public participation, and equitable digital infrastructure development. The momentum of the COVID-19 pandemic serves as evidence that the acceleration of digitalization is not just an urgent need, but also a strategic foothold for strengthening bureaucratic reform.

4.2. Governance and Bureaucratic Reform

Good governance is the main foundation in ensuring the success of public service innovation in Indonesia. The principles of transparency, accountability, effectiveness, and public participation are not just jargon, but pillars that must be consistently implemented to realize quality public services. Without sound governance, various forms of digital innovation potentially do not provide significant benefits to the public. Aminah and Saksono¹⁶ emphasize that the application of technology innovation in public administration can encourage

¹⁶ Sitti Aminah and Herie Saksono. "Digital transformation of the government: A case study in Indonesia." *Jurnal Komunikasi: Malaysian Journal of Communication* 37, no. 2 (2021): 272-288.

institutional transformation, provided it is accompanied by an adaptive governance system, open to change, and capable of adjusting to social dynamics and technological developments. Thus, innovation is not only related to technological devices but is also closely linked to the readiness of government institutions to change.

Bureaucratic reform in Indonesia itself has a clear objective, which is to create a government that is more efficient, responsive, and accountable, as explained by Sandisa & Agustana,¹⁷ Within this framework, the improvement of the capacity and competence of civil servants (ASN) occupies a highly strategic position. ASN are required not only to have technical understanding regarding digital systems but also managerial competence, professionalism, and the ability to face change. Without the support of capable human resources, digital technology will only remain an administrative device and will not yield a real impact on the quality of public services. Therefore, continuous training, capacity development, and bureaucratic cultural transformation become important agendas for digitalization to truly provide added value.

Besides ASN competence, the regulatory aspect is also highly determining for the success of public service innovation. Adaptive regulation is needed so that digitalization-related policies are not hampered by rules that are too rigid and difficult to adjust to change.¹⁸ Rules that are too rigid can actually impede

¹⁷ Gede Sandiasa and Putu Agustana. "Reformasi administrasi dan birokrasi pemerintahan daerah dalam meningkatkan kualitas layanan publik di daerah." *Public Inspiration: Jurnal Administrasi Publik* 3, no. 1 (2018): 1-8.

¹⁸ Veepan Kumar, Prem Vrat, and Ravi Shankar. "Prioritization of strategies to overcome the barriers in Industry 4.0: a hybrid MCDM approach." *Opsearch* 58, no. 3 (2021): 711-750.

bureaucratic creativity and flexibility in creating innovation. Responsive regulation that is open to public input can be an important support to maintain the balance between legal certainty and flexibility in managing digital services. With adaptive rules, the government can more freely integrate new technology without violating the principles of good governance.

The bureaucratic reform strategy in Indonesia also highlights the importance of multi-party collaboration. Innovation in public services cannot rely solely on the government but requires the involvement of the private sector, academics, and civil society. This collaboration will form a stronger innovation ecosystem, as various actors have different roles and contributions. The private sector, for instance, can provide support in the form of technology, investment, and technical expertise. Meanwhile, civil society plays an important role in providing input, monitoring service delivery, and ensuring that the resulting policies align with the real needs of the community. Involving various stakeholders is also believed to increase public trust, as the public service process is designed with broader participation and higher transparency.¹⁹

In a broader framework, public service digitalization actually reflects not only technological transformation but also a paradigm shift in how the bureaucracy works.²⁰ This transformation demands a mindset shift from a hierarchical, rigid, and

¹⁹ Ryan W Buell, Ethan Porter, and Michael I. Norton. "Surfacing the submerged state: Operational transparency increases trust in and engagement with government." *Manufacturing & Service Operations Management* 23, no. 4 (2021): 781-802.

²⁰ Peter André Busch, Helle Zinner Henriksen, and Øystein Sæbø. "Opportunities and challenges of digitized discretionary practices: a public service worker perspective." *Government Information Quarterly* 35, no. 4 (2018): 547-556.

procedural-oriented bureaucracy towards one that is adaptive, collaborative, and focused on community needs. Digitalization provides a great opportunity to create public services that are faster, simpler, and easier to access, but this will only be effective if accompanied by government commitment to strengthening governance, improving human resource competence, developing adaptive regulation, and building multi-party collaboration.

Thus, it can be concluded that good governance is an irreplaceable foundation for the success of public service innovation. The ongoing bureaucratic reform in Indonesia must make the principles of transparency, accountability, effectiveness, and public participation the main guide. Professional human resources, flexible regulation, and inclusive collaboration are complementary elements to ensure that public service digitalization is not merely a technical transformation, but truly a substantial change towards a modern, efficient, and publicly trusted bureaucracy.

5. Discussion

The results of the literature review indicate that efforts to strengthen public service innovation in Indonesia through digitalization and bureaucratic reform have great prospects for improving efficiency, openness, and service quality. However, there are a number of strategic issues that need to be anticipated for optimal results. The success of the digitalization process is closely linked to the quality of governance. If the principles of good governance are not consistently executed, then

technology-based innovation tends only to accelerate administrative procedures without genuinely increasing the legitimacy and public trust in the government.²¹

The issue of human resources remains a crucial point. The professionalism of ASN, the ability to adapt to technological developments, and the change in bureaucratic mindset must still be strengthened. Without adequate mastery of competence, digital technology will only be utilized restrictively and will not have a significant impact. Therefore, investment in the form of continuous training and capacity building programs is an urgent need for civil apparatus to be able to operate digital systems effectively and accurately.²²

Another major challenge faced is the visible digital divide that still exists in various regions in Indonesia. Online-based services cannot yet be accessed equitably because internet network availability is still focused in urban areas, while remote areas face serious limitations. This creates an injustice in the distribution of public services, where certain communities gain convenience, while others are left behind.²³ To overcome this, the equitable development of information technology infrastructure and the enhancement of digital literacy in the community must become a priority agenda in supporting service equity.

The success of public innovation cannot be separated from active public involvement. Citizens not only act as service beneficiaries but are also important

²¹ O. H. A. N. Suryana. "Mal Pelayanan Publik Dalam Bingkai Whole Of Government (WoG) dan Implementasi E-Government di Indonesia." *Jurnal Ilmiah Kajian Keimigrasian* 1, no. 2 (2018): 48-67.

²² Sri Cahaya Khoironi. "Pengaruh Analisis Kebutuhan Pelatihan Budaya Keamanan Siber Sebagai Upaya Pengembangan Kompetensi bagi Aparatur Sipil Negara di Era Digital." *Jurnal Studi Komunikasi Dan Media* 24, no. 1 (2020): 37-56.

²³ Maciej Kuziemski and Gianluca Misuraca. "AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings." *Telecommunications policy* 44, no. 6 (2020): 101976.

actors in designing and evaluating innovation. Therefore, participatory mechanisms need to be strengthened, for example through the provision of transparent feedback channels, open access to information, and direct public involvement in the process of formulating public policy. Strong participation will ensure that service innovation is genuinely relevant to the real needs of the community and increases the legitimacy of the resulting policies.²⁴

From this description, it is clear that public service innovation in Indonesia is not a simple process and cannot rely solely on the technological aspect. A more comprehensive approach needs to be taken by integrating various dimensions, such as the application of digital technology, the strengthening of governance, the improvement of human resource capacity, the development of flexible regulation, and public involvement in every stage. Through this holistic approach, digitalization can function not only as a tool for modernization but also as a catalyst for realizing a bureaucratic reform that is more adaptive, inclusive, and oriented toward sustainability.

6. Conclusion

Give This literature review indicates that public service innovation in Indonesia through digitalization and bureaucratic reform has an important role in answering public demands for services that are faster, transparent, and high-quality. E-government implementation is proven to increase efficiency, accountability, and

²⁴ Yovinus Yovinus. "Peran komunikasi publik media sosial dalam implementasi kebijakan keterbukaan informasi publik di Kota Bandung." *Jurnal Academia Praja: Jurnal Magister Ilmu Pemerintahan* 1, no. 01 (2018): 185-211.

public participation, although it still faces obstacles in the form of bureaucratic resistance, limited apparatus competence, and the digital divide between regions. The principle of good governance is proven to be the main foundation for the success of public service innovation.

Without good governance, technology innovation risks not providing a significant impact on improving service quality and public trust. Therefore, bureaucratic reform that emphasizes transparency, accountability, and public participation becomes extremely crucial. Future strategies need to include the development of adaptive regulation, the improvement of ASN capacity, and the strengthening of digital infrastructure. Furthermore, public participation needs to be continuously strengthened so that the resulting innovations align with the real needs of citizens. Thus, public service digitalization is not only a technical instrument but also a catalyst for creating an inclusive, efficient, and sustainable government.

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