

Government Organization Development: Innovative Strategies with Makassar Metaverse

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ABSTRACT

Organizational development in the digital era requires innovative steps in adopting technology to maintain organizational sustainability and resilience. As an innovative step that attracts attention, using Makassar Metaverse as a platform is a strategic choice to strengthen the organization's position in the digital ecosystem. The purpose of this article is to present comprehensive research results, focusing on the concept of digital-based organizational development through the application of the Makassar Metaverse. The research method applied is quantitative with big data analysis to describe the impact and potential of this innovation on government organizations. The research results indicate that there are several challenges that need to be overcome, such as limited accessibility to government websites and the level of community involvement that is not yet optimal on government social media accounts. Nevertheless, the Makassar Metaverse innovation brings significant changes in the context of government organizational development. This initiative encourages information disclosure by the government and creates wider participation space for the public in the decision-making process of government organizations. Thus, this article illustrates how important Metaverse digital innovation is in supporting organizational transformation into an increasingly complex digital era.

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INTRODUCTION

The development of digital-based organizations marks an important step in utilizing advances in information and communication technology to support overall organizational transformation (Choirunnisa et al., 2023). In an era where technological change is taking place rapidly, organizations that are able to exploit the potential of technology well have a significant competitive advantage. The adoption of information and communication technology in organizational development is not just a step towards modernity, but a strategy that encourages increased efficiency, effectiveness and flexibility (Ismail et al., 2023). The use of a well-integrated information system is the

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basis for fast and accurate decision making (Han, 2011) . This encourages the formation of an information ecosystem that facilitates access and exchange of data between parts of the organization, forming a strong foundation for improving collaboration and coordination.

In addition, data analysis and digitalization are the main pillars in managing modern organizations. By utilizing data analysis capabilities, organizations can gain deep insights into trends, societal behavior, and organizational dynamics (Lamirin et al., 2023). The application of digitalization in government brings the ability to automate processes, improve predictions, and optimize overall organizational performance (Janowski, 2015; Parviainen et al., 2017) . The success of developing a digital-based organization does not only depend on the application of technology, but also on the transformation of organizational culture and structure. Awareness of the importance of adapting to technological changes, understanding the value of data as a strategic asset, and involvement of all elements of the organization are the keys to success.

In facing current economic and technological dynamics, organizations need to adapt quickly to remain relevant (A'yun & Hartaman, 2021; Fajriyani et al., 2023; Miceli et al., 2021). One approach that is currently developing is digital-based organizational development. In this context, Makassar Metaverse is a promising platform for increasing organizational interaction and involvement in cyberspace. In an era of economic dynamics and increasingly rapid technological progress, organizations are required to accelerate the adaptation process for continuity and relevance. One strategy that is surging in popularity is transformation into a digital-based organization. In the midst of this turbulent change, Makassar Metaverse is emerging as a platform that is attracting attention, offering great potential to increase organizational interaction and engagement in the virtual realm.

Makassar Metaverse is an innovation that goes beyond the simple concept of virtual space. It is a comprehensive digital ecosystem, designed to enable organizations to conduct their various activities with unprecedented levels of effectiveness and efficiency. By adopting this revolutionary concept, organizations in Makassar can break through the physical boundaries that have limited their reach and capabilities. This Metaverse opens the door to exploring new opportunities that may be difficult to reach in the physical world. This platform offers a means to build and strengthen relationships with stakeholders in an immersive digital environment. So this platform is not only changing the way organizations operate, but also transforming how they interact, innovate, and grow in this digital era.

The existence of the Makassar Metaverse creates space for innovation, allowing organizations to experiment and collaborate without being constrained by geographic boundaries. By aligning with this platform, organizations can create a modern, progressive image, while providing a compelling digital experience to members, customers and business partners. It is important for organizations to understand how Makassar Metaverse can be a catalyst for positive change. From expanding government reach to optimizing service processes within government organizations, this platform promises significant transformation. Therefore, the decision to adopt Makassar Metaverse is not just a technological step, but rather an integral strategy in achieving competitive advantage in this digital era.

The Makassar city government has shown extraordinary commitment in realizing the transformation towards the metaverse era by implementing various proactive efforts. These significant steps include the formulation of progressive policies and regulations that support the optimization of metaverse-based public service delivery. Apart from that, the government has also focused on improving infrastructure that supports metaverse connectivity, launching educational campaigns for the public to increase understanding of the metaverse concept, and establishing close partnerships with the private sector and academics (Ramli & Mahmud, 2023).

Not only that, holding pilot projects has become an integral part of the government's strategy, where the real implementation of metaverse-based public services is tested to evaluate their effectiveness. Through close collaboration between the public and private sectors, as well as support from academics, the Makassar city government ensures that its citizens can experience maximum benefits from adopting metaverse technology in the delivery of public services. As such, these ongoing efforts mark an important step forward in creating a city that is modern, connected and responsive to global technological developments.

While the idea of a metaverse is intriguing, there are several questions about how it would be implemented in Makassar City. It is believed that the Makassar City Government moved too rapidly and is not yet prepared to put this idea into practice. Consequently, it was thought that this policy's implementation was hurried. The first step taken should be to ensure that the preparations have been thoroughly established, including conducting a comprehensive study involving relevant experts (Fadhila, 2022). Then, many argue that Makassar City needs to strengthen the foundation and infrastructure that supports the metaverse concept before actually implementing it. The involvement of experts in various fields, such as technology, cyber security and law, is considered important to ensure that the policies taken can run well and minimize potential risks. By conducting an in-depth study, Makassar City can better understand the implications and potential benefits and risks that may arise from implementing the metaverse concept (Hamka, 2022; Sulsel, 2022).

Several study show that use metaverse on government very allow for give upgrade in public services. Through metaverse visualization information important For create interesting experience and interactive. Technology graphic advanced allows data to be presented with a better way intuitive and deep, so that user can explore and interact with information in a way experience (Lnenicka et al., 2024) . Then found study observe support and regulation government as well as role sector private in development metaverse (Ruban, 2023). Other studies state that that metaverse allow opportunity for 10 services public alternative like health, education, and infrastructure. However, the metaverse that also can cause risk privacy, data protection, interoperability, and security cyber (Uzun, 2023).

Then study about exploring the potential adoption of metaverse in government has been done by (Armbrust, 2022; Distor et al., 2023; Nayak et al., 2023; Yfantis & Ntalianis, 2023) has show that metaverse in the public sector is good move For public services. While that study (Yang, 2023) find that Governance metaverse based on standard technical in the future front involve policy gradual balancing compatibility and security standard on various stage development metaverse. Various study previous looks focused on adoption metaverse in government, and not yet there is research that

reveals how metaverse can used for develop organization government. This study will explore how the implementation of the Metaverse in the public sector can influence the development of organizations in Makassar City.

Doubts regarding the implementation of Makassar Metaverse are not just concerns, but are also part of the dynamics that encourage innovation in the development of government organizations in Makassar City. As we are now entering the second year of implementing the Makassar Metaverse, attention to the extent to which digitalization innovations are integrated in government organizations is becoming increasingly interesting to observe. The concept of Frach et al. (2016) is considered a relevant framework for understanding the impact and development of Metaverse implementation in Makassar City. This research will focus on the digitalisation index, referring to this concept, to assess the extent of the effectiveness and adaptability of Makassar City government organizations in adopting Metaverse. By basing research on the concepts of Frach et al., (2016), we can explore the dimensions of digitalization and see the extent to which this innovation influences government operations and policies.

Through digitalisation index analysis, this research aims to identify the level of readiness of Makassar City government organizations in facing the Metaverse era. By understanding these indicators, this research can provide an in-depth view of how the implementation of Metaverse impacts digital transformation at the local government level. It is hoped that this will provide a strong basis for further strategy development, ensuring that Metaverse innovation in Makassar City can be managed effectively and provide optimal benefits for the community and other stakeholders .

METHOD

This research aims to understand and analyze the use of websites and social media as the main communication tools for government organizations in Makassar City. The approach used in this research is qualitative with a focus on data analysis using the NVivo application. The research sample consisted of 34 Regional Offices in the Makassar city government. This research has an exploratory descriptive design, with research instruments in the form of content analysis from various data sources collected. Data will be collected through observation of website and social media use, as well as analysis of related documents. The data collection process carried out by carrying out related observations at each Regional Office, totaling 34 government agencies. Data collection cover a specific period to understand changes in communication patterns. Data analysis using NVivo involve creating codes to identify key themes, trends, and emerging communication patterns. The validity and reliability of the research will be considered through data triangulation and internal validity. Ethical aspects of the research will be safeguarded by obtaining ethics approval and maintaining data security. The implications of the research results will be linked to practice and provide recommendations for improvements in the use of websites and social media by government organizations as a form of metaverse-based digital adaptation. Research will be structured systematically, including in-depth findings, analysis and interpretation.

RESULTS AND DISCUSSION

Makassar Metaverse is widely implemented in government and public administration services to increase efficiency and transparency. With the establishment

of a Virtual Government Center through the Makassar City government website, citizens can access administrative services without needing to come to a physical office, while government meetings and decision making can be carried out virtually to increase accessibility. Data integrity and interoperability can be improved by unifying government systems and databases into a single platform. On the public service side, virtual environments can be built to make it easier for citizens to access services such as paying taxes and licensing. Utilizing social sentiment analysis in the metaverse also enables monitoring of social issue trends, while community participation can be increased through the metaverse platform to support the decision-making process. Monitoring and evaluation of government projects can be done in real-time through virtual dashboards, and simulations and predictions can be used for better planning and budgeting. Thus, the integration of Makassar Metaverse into various aspects of government can create an ecosystem that is efficient, open and responsive to community needs. The measure of success of the Makassar metaverse program in developing government organizations can be seen from the digital strategy which is analyzed using several indicators including digital transformation trends, digitalization goals, leadership and the impact of digital transformation (Frach et al., 2016).

Trends d Digital Transformation

It is critical for public sector organizations to have a digitalization strategy that is aligned with disruptive trends in the ever-changing digital environment (Avita et al., 2023; Hai et al., 2021; Ziadlou, 2021). This requires comprehensive digital transformation initiatives in addition to the use of the latest technologies. organizations must understand that digital transformation is not just about leveraging technology tools; Digital transformation also requires fundamental modifications to organizational culture, processes and public service delivery methods (Nadkarni & Prügl, 2021; Vial, 2021; Zaki, 2019). Makassar Metaverse is an important dimension in formulating digitalization strategies for organizations in the public sector. By creating an integrated digital environment, Makassar Metaverse provides an opportunity for organizations to deliver more efficient and user-oriented services. Community participation in the digital space, which is a key indicator in evaluating digital transformation strategies, can be increased through the integration of participatory elements in the Makassar Metaverse.

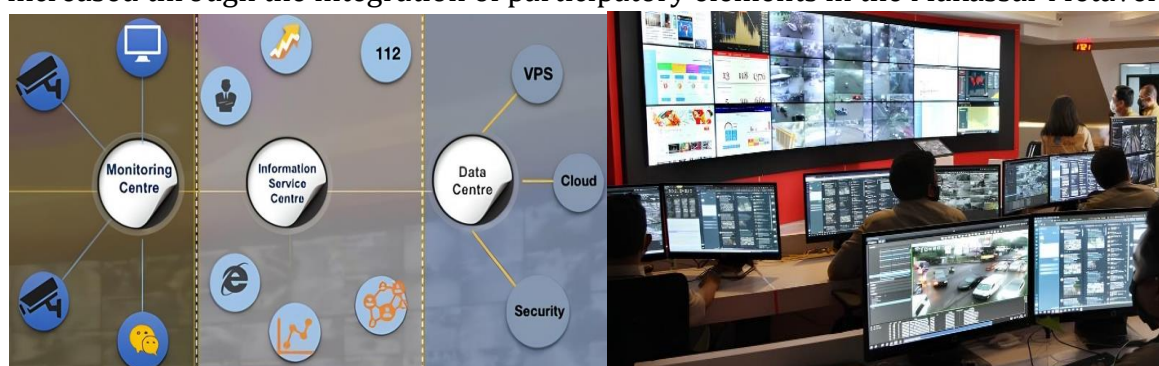


Figure 1. Operation room/war rom as monitoring center, Information services center and Data Center

Source : Regional Office of Communication and Information, 2023

Figure 1 shows that the government organization in Makassar City is serious about the digital transformative trend by building an operation room or war room. The Innovation Operation Room is a room that functions as an information service center, service monitoring center for all government organizations in the city of Makassar and as a data center for the Makassar City government. This space is equipped with various high-tech platforms and infrastructure to support the vision of the Makassar Metaverse Program. Built in 2015 and operated in 2016, the Operation Room initially only focused on monitoring via CCTV and video walls, located in the City Hall Building.

Currently, Operation Room services in Makassar City have embraced various important aspects in supporting government functions and providing optimal services to the community. This Operation Room first acts as a Data Center for the Makassar City government, equipped with server infrastructure using Hyperconverged Infrastructure (HCI), network and information security systems at level 4, as well as adequate energy sources. In addition, the Operation Room provides Government Cloud Hosting/computing for website-based applications, mobile applications and sectoral data storage for the Makassar City Government. Operation Room also presents a Virtual Private Server (PVS) and Public IP specifically for online City government services. This includes government-to-government (G2G), government-to-citizen (G2C), and government-to-employee (G2E) service support. Monitoring of all CCTV units installed in various strategic locations such as main roads, government buildings, public service centers, green open spaces, markets, terminals, and so on is also carried out.

The Operation Room supports the Electronic Traffic Law Enforcement (ETLE) of the South Sulawesi Police Traffic Directorate by providing the necessary infrastructure and applications. As a monitoring center for Makassar City government services, the Operation Room is also active in monitoring the realization of Regional Original Income, health services (homecare), hospital services and civil registration administration. Apart from that, the Operation Room acts as a monitoring center for internet networks, internet devices and computer servers for the Makassar City government. By having a network Operation Center (NOC) that operates 24 hours a day and 7 days a week, the Operation Room ensures continuous system availability and security. The Operation Room also provides a toll-free 112 Call Center Service which operates 24 hours per day and 7 days per week, providing easy access for the public to obtain information and services. In addition, online or on-site support and assistance (helpdesk) is also available around the clock, namely 24 hours a day, 7 days a week, and 365 days a year, especially to deal with internet network and CCTV disruptions, showing full commitment to responsive service and efficient.

Furthermore, government organizations in Makassar City are able to utilize data analysis capabilities and social media capabilities as a public communication tool to the community. By combining social media in the context of the Metaverse, organizations can respond to the dynamics of society's needs more quickly and accurately.

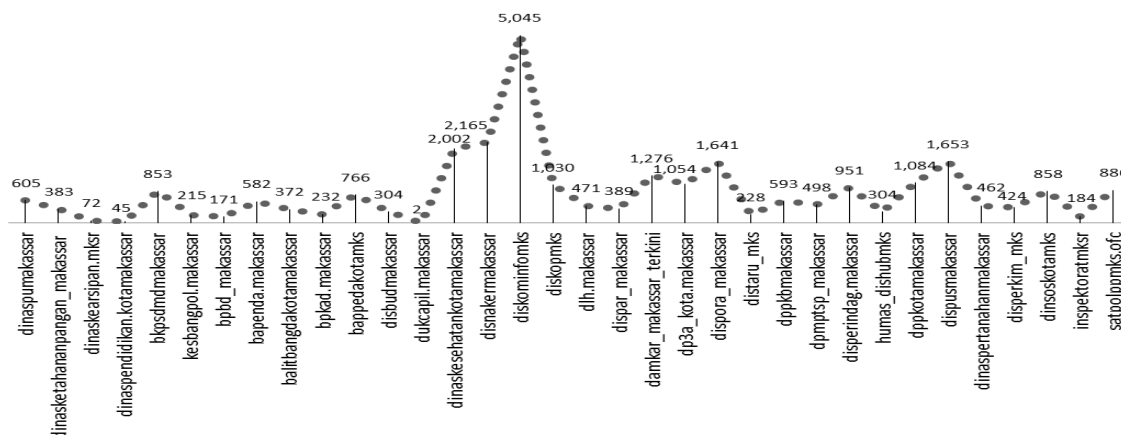


Figure 2. Number of Instagram social media account posts 34 Makassar city government agencies

Source: Observed and Processed By the Author, 2024

The Makassar City Government has taken significant steps in utilizing the potential of social media in all regional offices within its government structure. Noting that as many as 34 government organizations actively have official social media accounts, this initiative shows the government's commitment to adopting digital platforms as a means of communicating and interacting with the public.

Further analysis, as seen in Figure 2, reveals that the Regional Office of Communication and Information, known by its Instagram account @diskominfomks, leads with a total of 5,045 posts. This high level of activity is an indication that these agencies, which have the task of providing fast information to the public, have succeeded in interpreting their role well. They not only utilize social media as an information channel, but have also succeeded in making it an effective tool for communicating actively with the public. On the other hand, the Regional Office of Citizenship and Civil Registration (@dukcapil.makassar) was recorded as the agency with the lowest number of posts, namely only 2. However, after conducting a search, it was discovered that this account was the result of a new launch by the Regional Office of Citizenship and Civil Registration, replaces old accounts that can no longer be used. This factor highlights the government's adaptability in responding to technological developments and new communication needs.

Overall, this achievement illustrates that the Makassar City Government has succeeded in utilizing social media as an efficient and responsive public communication tool. This success is not only visible from the intensity of posts, but also from the government's ability to adapt to changes, such as shifting social media accounts. This indicates that the Makassar City Government does not only see social media as a one-way tool, but as an interactive means to strengthen relationships with the community.

Digitalization Goals

The Makassar City Government is directing its strategic goals towards transforming public services, creating innovative steps to modernize and improve the quality of services provided to the community. As the Makassar Metaverse concept continues to develop, this goal becomes increasingly relevant and profound. Public service transformation is no longer limited to conventional innovation, but includes the integration of metaverse technology to create a more holistic digital experience (Bibri,

2022; Bibri & Allam, 2022). Makassar Metaverse can be a strong foundation for achieving this goal of public service transformation. Through the use of the metaverse, the Makassar City Government can provide services that are more interactive, responsive and thoroughly connected to the needs of the community. Metaverse creates an integrated digital space, enabling citizens to participate in decision-making processes, access government information more easily, and experience more personalized services (Allam et al., 2022; Ud Din et al., 2023; Yaqoob et al., 2023). The Makassar City Government has taken extraordinary steps in improving digital-based services, there are 180 website domains that are integrated with the Makassar City government. In this research, using a sample of 34 government agencies, there were 20 government agencies with websites that were very easy to access and had various public services that were interactional to transactional in nature (Figure 3).

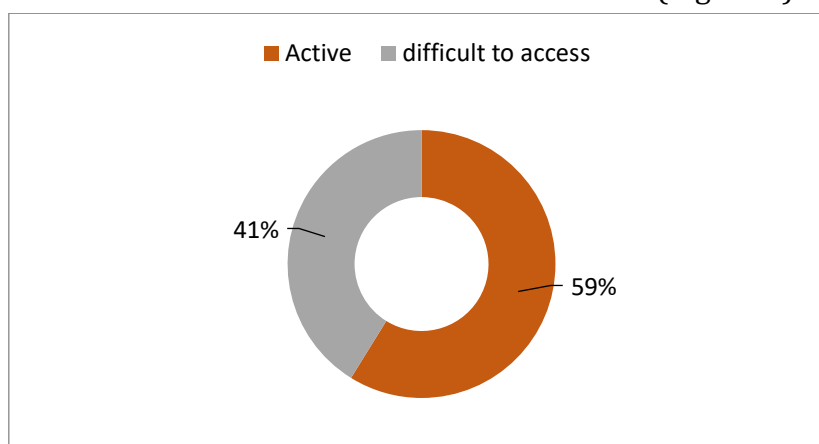


Figure 3. Website status of 34 Regional Offices in Makassar City
 Source: Observed and Processed By the Author, 2024

Although efforts to digitize Makassar City government services have not yet fully reached the desired level of implementation, observations on February 1 2024 reflect challenges in accessibility. As many as 14 regional office websites are still experiencing difficulties in being accessed, indicating that there is still room for improvement in perfecting digital infrastructure. However, on the positive side, there has been significant progress in digital transformation efforts. A total of 25 government agencies in Makassar City have succeeded in building and maintaining websites that are not only informative, but also easily accessible to the public. This success reflects that the Makassar City government's digital transformation goals in organizational development have achieved significant progress. Even though there are still some digital services that are difficult to access, this positive achievement shows commitment and success in providing better accessibility for the public through online platforms.

It is important to continue increasing efforts in digitizing services, developing policies that support accessibility, and ensuring that all regional offices can follow the positive trends that have been set by government agencies that have succeeded in developing effective websites (Chatra & Havifi, 2021; Gasanov, 2022; Ingrams et al., 2020). By continuing to encourage digital innovation, the Makassar City government can ensure that its digital transformation not only runs smoothly but also has a maximum positive impact on public services and interactions with the community. Thus, Makassar Metaverse becomes a strategic tool in achieving the goals of

transforming public services for the Makassar City Government. This is not just about improving administrative efficiency, but also about creating an inclusive digital ecosystem and meeting people's expectations for modern, leading-edge services.

The use of metaverse technology is the main driver for changing the public service paradigm, creating innovations that can build closer connections between government and society in this digital era. The importance of metaverse technology in changing the public service paradigm also lies in its ability to overcome geographic limitations and provide more equal access to society. Thus, the metaverse is not only a tool to increase administrative efficiency, but also a medium to strengthen ties between the government and its citizens, creating a participatory environment that encourages collaboration and active involvement in the process of providing public services.

Digital transformation leadership

Leadership and governance play a crucial role in designing and executing digital strategies in an organizational context. Leadership acts as a key driver in guiding organizations through digital transformation. Visionary leaders have the ability to articulate a clear digital vision and inspire team members to adopt change. The ability to motivate, lead change and create a culture of innovation is the core of leadership in facing the dynamics of digital technology.

On the other hand, governance refers to the organizational structure and decision-making mechanisms. In the context of digital strategy, good governance will include establishing strategic policies related to technology, digital risk management, and efficient resource allocation. Executive leaders play a critical role in setting direction and providing the support necessary to realize digital strategies. The Mayor of Makassar, Danny Pomanto, has been key in leading the digital transformation of Makassar City. During his leadership, he has received many awards related to the success of his digital innovation in Makassar City.

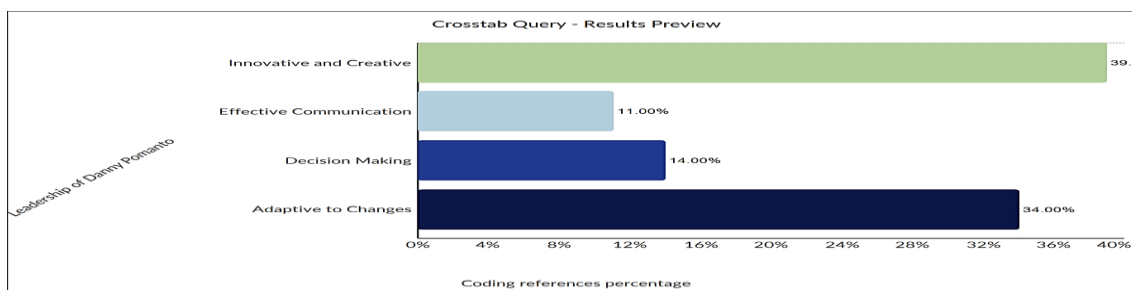


Figure 4. Result Preview of Danny Pomanto Leadership in Makassar city

Source: observed and processed by the author, 2024

Data analysis using Nvivo in Figure 4 shows a positive picture regarding Danny Pomanto's leadership as Mayor of Makassar City. Its leadership is dominated by innovation and creativity, which is reflected in the coding preference percentage of 39%. This indicates that Danny Pomanto has a high tendency to create new ideas and creative solutions in administering Makassar City government. The award received by Makassar City as the best digital development in Indonesia by Tempo media is concrete evidence of Danny Pomanto's innovative leadership contribution. The digital development implemented in Makassar City has had a positive impact and is recognized by external parties, reflecting visionary and progressive leadership qualities.

Apart from that, the analysis results also show that Danny Pomanto has a high ability to adapt to change, with a coding percentage of 34%. Adaptive leaders are a valuable asset in facing government dynamics, especially in the current era of digital transformation (Hoerudin, 2020; Li et al., 2022; Liang, 2015). Then, decision making and effective communication get a lower percentage (14% and 11% respectively), but still make a significant contribution to Danny Pomanto's leadership. Decisions taken by a leader can have long-term impacts, and a fairly high percentage shows that Danny Pomanto pays serious attention to the decision-making process. Likewise, effective communication which reached 11% remains an important aspect of leadership. Good communication can facilitate better understanding among team members and stakeholders, as well as strengthen engagement and support for government policies.

Overall, the results of research on the leadership aspect of digital transformation show that Danny Pomanto's leadership is characterized by innovation, adaptability and seriousness in decision making, all of which are important elements in achieving success and progress of a government. Effective leadership and governance must work together to achieve goals. digital strategy. Leaders are not only responsible for implementing strategy, but also need to work closely with high-level decision makers to ensure that strategic decisions are well integrated throughout the organization. Effective involvement and coordination between leadership and governance is key in optimizing the use of digital technology to improve organizational performance, achieve business goals and meet stakeholder expectations.

Makassar Metaverse has been run with strong leadership and effective governance. Of course, this determines the success of implementing metaverse as part of the Makassar City government's digital strategy. Visionary leadership can lead digital transformation initiatives by guiding and inspiring teams to adopt the latest technologies, including metaverse, to advance public services (Imran et al., 2021; Khoiri, 2020; Magesa & Jonathan, 2022). In addition, good governance ensures that the implementation of digital strategies, especially in integrating the Makassar Metaverse, runs smoothly and is in line with the organization's vision. This involves risk management, resource allocation, and continuous monitoring of the impact of digital strategies on organizational goals. Efficient governance also ensures active participation from all levels of the organization, creating the collaboration necessary to optimize the potential of metaverse technology.

The Impact of Digitalization on the Makassar Metaverse

The Makassar Metaverse serves as more than just a measurement tool for organizations to assess their digital strategy's impact; it also allows them to witness positive outcomes firsthand. A key indicator of its success is the notable increase in community engagement within the digital realm. This metaverse platform goes beyond merely providing improved accessibility; it creates immersive, interactive experiences that encourage greater citizen participation and involvement. Moreover, the enhanced efficiency of public services stands as a testament to the effectiveness of digital strategies implemented through the Makassar Metaverse. This innovative approach not only streamlines governmental processes but also fosters a more connected and responsive urban ecosystem. With integrated and more accessible service processes, organizations can measure the extent to which their services become more efficient and

responsive to people's needs (Loka et al., 2022; Vigoda, 2015; Yigitcanlar et al., 2021). This not only increases user satisfaction, but also creates a more modern service environment.

An increase in local revenue through the metaverse platform is also an indicator of the success of the digital strategy. By providing more affordable services and information, metaverse can support government initiatives in increasing tax revenues and other sources of regional income. A quite striking positive impact can also be observed in the level of citizen participation in the decision-making process via digital platforms. Makassar Metaverse creates space for more inclusive interactions between government and society, enabling citizens to contribute to policies and initiatives designed for the common good.

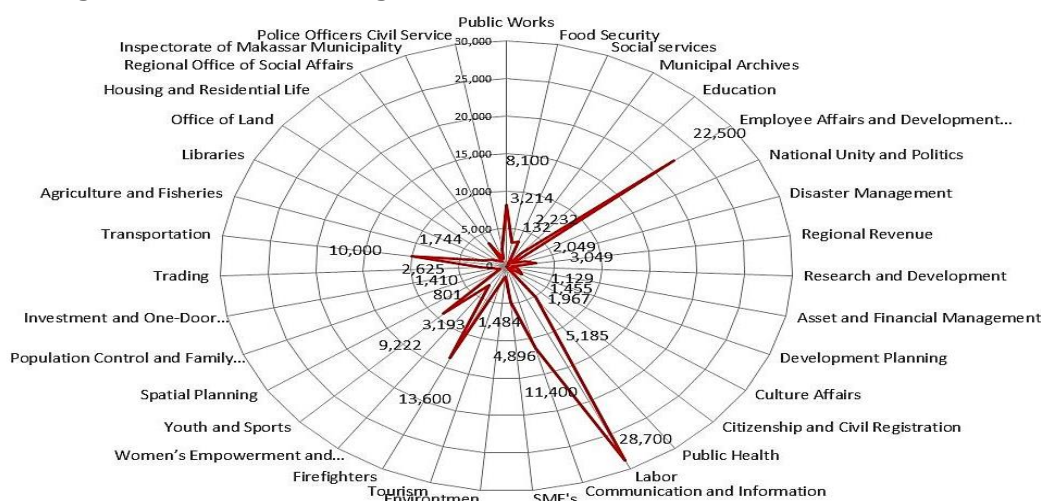


Figure 5. Number of Followers as Community Engagement in Social Media
Source: Observed and Processed By the Author, 2024

Data regarding public involvement in following government social media (Figure 5) provides an overview of variations in participation levels in various agencies or service sectors. It can be seen that some agencies, such as "Labor" and "Firefighters," achieved significant levels of engagement, with follower counts reaching 28,700 and 13,600, respectively. This high figure reflects the great interest and attention of society towards issues related to work and security, especially in the context of residential fires. Community involvement in agencies such as "Labor" indicates the need to convey the latest information regarding work and employment issues. Meanwhile, the "Firefighters" agency shows that the community has high attention to security and fire prevention, especially regarding residential areas. With this understanding, the government can design a more targeted communication strategy, utilizing the potential of social media to convey relevant information related to employment, security and residential fires. Thus, this data not only reflects the level of community involvement, but also provides valuable insights for the government to develop content that better suits the interests and needs of the community in the context of public services.

"Employee Affairs and Development of Human Resources" became a highlight with the number of followers reaching 22,500, reflecting the high level of community involvement in employment issues and human resource development. This significant involvement shows the community's great interest in understanding employment

policies, career development opportunities, and the latest developments in the field of human resources. The importance of this agency's popularity on social media opens up opportunities for the government to use it as an effective tool in conveying information related to employment policies, career development opportunities, and employment-related issues. Social media platforms can be used as a forum to provide relevant information, answer people's questions, and provide a better understanding of the role of "Employee Affairs and Development of Human Resources." In this way, the government can take advantage of the success of this engagement to build stronger relationships between these agencies and the community, create transparency, and increase public understanding of policies and initiatives in the field of employment.

In contrast, some agencies such as "Municipal Archives" and "Citizenship and Civil Registration" show lower levels of engagement with the number of followers of 132 and 59. This phenomenon suggests the need for more proactive digital communication strategies in agencies with low levels of engagement to increase awareness and community participation. This data also highlights the importance of digital communication in conveying information to the public, especially on strategic issues such as health, as shown by the level of involvement in "Public Health" agencies of 5,185. Through understanding this data, the government can design more effective communication strategies, utilizing the potential of social media to convey information and interact with the public according to their needs and interests in various sectors and departments.

The key point of community involvement as a result of implementing the Makassar Metaverse is the total number of followers of 34 government organization social media which only reached 159,817. This figure is relatively low when compared to the total population of Makassar City of 1,432,189 (Makassar City regional statistics, 2023), this reflects the big challenges faced by the Makassar City government in increasing community involvement in interactions with the government in cyberspace. However, what is most interesting about the implementation of the Makassar Metaverse is that the Makassar City government has succeeded in maximizing the use of social media to provide information and means of direct interaction to the public. This success can be dedicated to the leadership of the Mayor of Makassar who has been persistent in implementing digital government in Makassar City. By having leaders who understand the dynamics of technology and have supportive governance, organizations can comprehensively measure the impact of their digital strategy and ensure that the implementation of the Makassar Metaverse achieves the desired results. This is in line with the vision and goals of the digital transformation of the Makassar City government, which shows a commitment to continue to innovate and adapt to technological developments in order to improve the quality of public services and interactions with the community.

CONCLUSION

The implementation of the Makassar Metaverse is an innovation that is adaptive to changes due to the increasing need for digitalization. Through the establishment of a Virtual Government Center and the use of a virtual environment, Makassar City residents can access administrative services without physical presence, while government meetings and decision making can be carried out virtually. Data integration

and interoperability on a single platform increases efficiency, while social sentiment analysis in the metaverse enables monitoring of social issues. The Makassar City Government is also implementing the Operation Room as an information and monitoring service center, with data analysis and social media capabilities, providing support for government services and strengthening community involvement. With a digital strategy focused on digital transformation trends, Makassar Metaverse becomes an important dimension in modernizing public services, increasing citizen participation, and creating an efficient and responsive ecosystem.

The Makassar Metaverse program is assessed from a digital strategy that includes digital transformation trends, digitalization goals, digital transformation leadership, and impact. The importance of the leadership of the Mayor of Makassar, Danny Pomanto, can be seen from the analysis which shows innovation, adaptability and seriousness in decision making. With the support of effective governance, Danny Pomanto leads digital transformation by guiding his team to adopt the latest technology, including Makassar Metaverse. The positive impact can be seen in increasing community involvement, efficiency of public services, regional income, and citizen participation in the decision-making process. Although challenges remain, such as accessibility to government websites, efforts continue to be made to increase digital innovation and provide better public services to the community.

This study has limitations, namely that this study focuses on the early stages of Makassar Metaverse implementation, so the long-term impact and sustainability of the program cannot be assessed comprehensively. For further research, it is recommended to conduct a longitudinal study to observe the development and long-term impact of Makassar Metaverse on governance and the quality of life of the community. Comparative research with other cities implementing similar concepts can also provide valuable insights into best practices and potential improvements.

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