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Preface

This volume contains papers presented at The 2024 15th International Conference on E-Education, E-Business, E-Management and E-Learning (IC4E 2024), which is organized by Kyushu University and technical supported by Purdue University Northwest, USA, De La Salle University, Philippines, China West Normal University, China, Bulacan State University, Philippines and Prince Sultan University, Saudi Arabic and held at Fukuoka, Japan from March 18-21, 2024.

IC4E 2024 provided a platform for scholars, researchers, and related workers who specialize in all aspects of E-education, E-business, E-management and E-learning. In addition to the contributed papers, several internationally renowned experts from several countries were also invited to deliver three keynote speeches includes theme of digitally-motivated pedagogical practices, AI in higher education and e-management and six Invited Speeches related to digital ecosystem transformation, teaching science and internet advertising at IC4E 2024.

The volume selected papers that were submitted to the conference from universities, research institutes, and industries. Each contributed paper has been qualified within the field of Multimedia-based Learning and Interactive Learning Resources, Blended Learning and Game-Based Learning, Artificial Intelligence and Data Modeling in Education, Design of Learning Management System and STEM Education, Online Learning and Distance Learning, E-Learning Module Design and the Related Students' Perceptions, E-Commerce and Design of Mobile Commerce Applications, Business Informatization and Business Intelligence, E-Government and Social Informatics and Interactive Environment Design and Virtual Experience. The proceedings aim to present the newest research results and findings in the related fields to the readers.

The chairpersons of each session played a significant role in guiding the sessions in a timely and efficient manner. To ensure the quality of the papers and improve their content, the reviewers also made great efforts within the given time. On behalf of the conference committee, we would like to express our sincere appreciation to them for their contributions.

We truly believe that the participants will find the discussions fruitful and that they will enjoy the opportunity to set up future collaborations.

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"Future-Forward Governance: Catalyzing Public Excellence via E-Public Engagement in Smart City Innovations"

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ABSTRACT

This research aims to investigate the impact and effectiveness of implementing the E-PUBLIC Engagement model in designing innovations in public services within the context of a Smart City. The research employs a quantitative approach, collecting data through online surveys involving participants such as city residents, government officials, and relevant stakeholders. The obtained data will be statistically analyzed to measure the levels of engagement, satisfaction, and the positive impact of implemented public service innovations. The uniqueness of this research lies in its holistic approach to E-PUBLIC Engagement implementation, which not only measures participation levels but also evaluates its impact on the improvement of public services and the strengthening of community engagement. The study is expected to provide in-depth insights into the dynamics of interactions between the government and the community in the Smart City environment. Implications of this research include policy recommendations for city governments to enhance the effectiveness of public services through the utilization of E-Public Engagement technology. The findings can also serve as a foundation for governments and other stakeholders in designing more efficient and innovation-oriented community engagement strategies in the future. Thus, this research has the potential to make a significant contribution to the development of adaptive and responsive governance models in the era of Smart Cities.

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KEYWORDS

E-Public Engagement, Governance Innovation, Public Services, Smart City

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1 INTRODUCTION

Cities worldwide are increasingly integrating technology to enhance the quality of life for their residents and optimize public services. The implementation of the Smart City concept has become a growing trend, where information and communication technology is utilized to improve efficiency, sustainability, and community engagement in various aspects of urban life. In this context, E-Public Engagement, or public engagement through electronic platforms, becomes a crucial pillar for creating inclusive and responsive governance to meet the needs of the community. Although numerous studies have explored the concepts of Smart Cities and public engagement, there is still limited research specifically focusing on innovation in public services through the utilization of E-PUBLIC Engagement models. Indonesia, as a developing country experiencing rapid urbanization, faces unique challenges in providing effective and responsive public services. Therefore, an innovative approach is needed to ensure that public services can meet the highest quality standards.

Currently, there is a knowledge gap that needs to be addressed regarding the implementation of E-Public Engagement models in innovative public service delivery in Smart Cities, particularly in

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Indonesia. Some previous studies have highlighted the application of technology in public services or community engagement strategies but have been limited in fully exploring the potential of E-Public Engagement models. A deeper understanding is required of how this model can effectively enhance interactions between the government and the community to create innovative and relevant public services. Indonesia, with its large population and diverse socio-economic backgrounds, faces unique challenges in providing public services. The rapidly increasing urbanization rate puts additional pressure on city governments to deliver quality services. On the other hand, the development of information technology in Indonesia has shown significant growth, creating substantial opportunities to improve public services through digital innovation. However, it is important to acknowledge that the implementation of technology in the public sector does not always proceed smoothly. Challenges such as limited access to technology for some segments of the population, data security concerns, and immature policies can hinder the successful implementation of E-PUBLIC Engagement models. Therefore, this research will attempt to fill knowledge gaps by delving deeper into these aspects and seeking solutions adaptable by city governments in Indonesia. By understanding the unique conditions in Indonesia and exploring E-Public Engagement models in the context of Smart Cities, this research is expected to provide valuable insights for policymakers, practitioners, and academics. Focusing on innovation in public services, this study has the potential to offer fresh perspectives on improving the quality of urban life in Indonesia while contributing to the development of Smart City governance theories and practices globally. here are four succinct and clear problem statements based on the provided background:

- 1. How can the implementation of Electronic Public Engagement models enhance innovation in public service delivery in Smart Cities, particularly in Indonesia?
- 2. How is the relationship between E-Public Engagement and E-Governance based on questionnaire results and statistical calculations?
- 3. How can Electronic Public Engagement models strengthen interactions between government and citizens to create more responsive and inclusive public services?
- 4. What contribution does this research make in providing new insights into the development of Smart City governance in Indonesia and globally, especially in the context of improving urban quality of life?

1.1 Innovations on Smart City.

Smart City has become a prominent concept, drawing attention for its role in advancing sustainable urban development and leveraging technology to enhance the well-being of urban residents. Caragliu, Del Bo, and Nijkamp (2009) define a Smart City as one that employs digital technologies and information and communication technologies (ICT) to improve performance, reduce costs, engage more effectively with citizens, and enhance overall quality of life [1]. contribute to this definition by characterizing Smart Cities across six dimensions: Smart Economy, Smart Governance, Smart Mobility, Smart Environment, Smart People, and Smart Living, covering diverse aspects of urban life from economic activities to environmental sustainability [2], [3], [4].

Within the realm of Smart City innovations, underscore the pivotal role of innovation in fostering sustainable urban environments. They posit that Smart City innovations involve the integration of digital technologies with the goal of enhancing urban services, infrastructure, and overall quality of life for citizens. Extends this discourse by introducing the concept of "Innovation Ecosystems" within Smart Cities, emphasizing the interconnectedness of stakeholders-government, businesses, academia, and citizens-in driving and benefiting from urban innovations. stress the citizencentric nature of Smart City innovations, asserting that prioritizing citizen engagement through technology is essential for the success of Smart City initiatives, leading to more responsive and inclusive urban governance [2], [5]. further expands this perspective by introducing the notion of "intelligent governance," highlighting the use of information and communication technologies to empower citizens in actively participating in decision-making processes. In summary, Smart City innovations encapsulate a wide range of technological advancements aimed at improving urban living, with a strong emphasis on citizen engagement, sustainability, and the integration of various dimensions for truly innovative and inclusive urban spaces.

1.2 Technology-Driven Governance Concept.

Concept of technology-driven governance, many experts acknowledge the significance of implementing information technology to enhance the quality of public services and government efficiency., e-government or electronic governance is the utilization of information and communication technology (ICT) to improve government efficiency, effectiveness, transparency, and accountability. Fountain also emphasizes that the implementation of e-government can enhance the relationship between the government and the public, open access to information, and expedite decision-making processes [6], [7], [8].

1.3 E-Behaviour

The Theory of Planned Behavior (TPB) provides a relevant conceptual framework for understanding E-Behavior in the context of e-government. According to TPB, individual behavior in adopting electronic government services is predicted by their intention, which is influenced by three main factors: attitude toward the behavior, subjective norm or individual perceptions of expectations from significant others, and perceived behavioral control. In the context of e-government, a positive attitude toward the use of electronic services, positive influence from social groups or family, and an individual's perception of the ease of use and usefulness of such services can strengthen the intention to adopt E-Behavior [9], [10]. The integration of TPB can offer significant insights into designing more effective strategies to encourage and understand user behavior in adopting electronic government services. Reference: Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes.

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1.4 Model E-Public Engagement.

In the context of the E-Public Engagement model, West introduces the concept of "e-participation" as a form of community involvement through digital platforms. E-participation encompasses the use of technology to facilitate citizen participation in decisionmaking processes and policy planning [11], [12]. West emphasizes that e-participation goes beyond providing information to the public; it also creates a two-way channel for dialogue and input. Thus, E-Public Engagement can be seen as an evolution of the more interactive and inclusive concept of e-government.

Connected to the concept of e-management, Dubois and Gadde (2002) state that e-management involves the use of information technology to enhance the efficiency of management processes in the public sector. They underscore the importance of integrating information systems to improve coordination, communication, and collaboration within government organizations. By leveraging e-management, governments can be more effective in planning, implementing, and evaluating policies and public services. By combining the concepts of e-government and e-management, governments can create an ecosystem that is more responsive to the needs of the community, enhancing citizen participation and optimizing resource utilization through efficient management processes [13], [14], [15]. Overall, the integration of e-government and e-management can form a solid foundation for technology-driven governance that achieves sustainable development goals.

2 METHODE

Display The research method that can be used to analyze the influence of E-Public Engagement characteristics on the existence of e-governance in the context of a Smart City is statistical regression analysis. The sample will be drawn from a relevant population, specifically residents of three cities in Indonesia designated as Smart Cities. A random sampling approach will be employed, and data will be collected through a questionnaire. To calculate the sample from a population of 17.2 million consisting of the residents of Jakarta, Semarang, and Bali, several things need to be considered. Thus, the sample calculation should take into account the population distribution of the three cities. The research stages:

- 1. Formulating the Research Problem: Determining the research objectives and formulate a specific research problem related to the influence of E-Public Engagement characteristics on the existence of e-governance in the context of a Smart City.
- 2. Literature Review: A literature review to understand existing knowledge about E-Public Engagement, e-governance, Smart City, and relevant analysis methods such as statistical regression.
- 3. **Designing the Research Framework**: Establish the conceptual framework of the research, the variables to be studied, and the relationships between variables. Develop research hypotheses for using regression analysis.
- 4. **Sampling Selection**: Calculate the required sample size to achieve the desired accuracy in the study. Apply a random sampling approach to select respondents from the target population, namely residents of Jakarta, Semarang, and Bali.

- 5. **Development of Research Instruments**: Design a questionnaire to collect data on E-Public Engagement characteristics and perceptions of e-governance from respondents. Ensure that the questionnaire has adequate validity and reliability.
- 6. **Data Collection**: Collect data from the selected respondents using the prepared questionnaire. Ensure that the data collection process is carried out carefully and follows the established procedures.
- 7. **Data Analysis**: Utilize statistical regression analysis to evaluate the relationship between E-Public Engagement characteristics and the existence of e-governance in the context of a Smart City. This analysis will help identify whether there is a significant influence of E-Public Engagement characteristics on e-governance.
- 8. **Interpretation of Results**: Interpret the results of the data analysis and assess the research hypotheses. Discuss the implications of the findings for theory and practice in the field of E-Public Engagement and e-governance.
- 9. **Preparation of Research Report**: Present the research findings in a systematic and clear report. The report should cover all research stages, methodology, results, and conclusions supported by data.

The objective is to obtain responses from 93 participants, following a research model as outlined below

1. Hypothesis on the Influence of E-Public Engagement on E-Governance:

- H0: There is no significant influence between the level of E-Public Engagement and the level of E-Governance in a Smart City.
- H1: There is a significant influence between the level of E-Public Engagement and the level of E-Governance in a Smart City.

2. Hypothesis on the Influence of E-Behavioral on E-Governance:

- H0: There is no significant influence between the level of E-Behavioral and the level of E-Governance in a Smart City.
- H1: There is a significant influence between the level of E-Behavioral and the level of E-Governance in a Smart City.
- 3. Hypothesis on the Influence of E-Governance on Smart City:
 - H0: There is no significant influence between the level of E-Governance and the status of being a Smart City.
 - H1: There is a significant influence between the level of E-Governance and the status of being a Smart City.

4. Hypothesis on the Influence of E-Public Engagement on Smart City (through E-Governance):

- H0: There is no significant influence between the level of E-Public Engagement and the status of being a Smart City, mediated by the influence of E-Governance.
- H1: There is a significant influence between the level of E-Public Engagement and the status of being a Smart City, mediated by the influence of E-Governance.

The testing for the hypotheses will be carried out through statistical tools. Statistical analysis, such as regression analysis, will be employed to examine the relationships and determine the significance of the variables. Utilizing these statistical tools will provide



Figure 1: Model depicts the relationship between the variables of E-Public Engagement, E-Behavioral, E-Governance, and Smart City

a robust method for assessing the proposed associations between E-Public Engagement, E-Behavioral, E-Governance, and the status of being a Smart City. The results obtained from these statistical tests will offer valuable insights into the strength and significance of the identified influences, contributing to a comprehensive understanding of the dynamics within the studied framework.

3 RESULTS AND DISCUSSION

The empirical findings provide a comprehensive analysis of the dynamic relationships among E-Public Engagement, E-Behavioral, E-Governance, and the status as a Smart City within the Indonesian context. This research employs statistical regression analysis with a sample of 93 randomly selected residents from three cities in Indonesia designated as Smart Cities. Hypotheses regarding the influence of E-Public Engagement and E-Behavioral on E-Governance, the impact of E-Governance on the status of being a Smart City, and the influence of E-Public Engagement on the Smart City status through E-Governance will be scrutinized. The complex depiction of these relationships is defined, providing a profound understanding of the key factors contributing to Smart City development and explaining the interactions among citizen engagement, behavioral patterns, governance effectiveness, and the overall concept of a Smart City.

With a regression coefficient value between E-Public Engagement and E-Governance of 1.27, and a t-table value at a significance level of 0.05 of 1.96 (assumed for a significance level of 5% with relevant degrees of freedom), we can interpret the results as follows: The regression coefficient (1.27) is greater than the t-table value (1.96) at a significance level of 0.05, then the relationship between E-Public Engagement and E-Governance is considered statistically significant. This indicates that there is a significant relationship between E-Public Engagement and E-Governance at a significance level of 0.05. In conclude that changes in the E-Public Engagement variable significantly contribute to changes in the E-Governance variable. In other words, the level of public involvement in electronic governance processes (e-governance) has a significant impact on Smart City advancement in the observed context. Therefore, if the regression coefficient value (1.27) is greater than the t-table value (1.96) at a significance level of 0.05, the interpretation is that the relationship between E-Public Engagement and E-Governance is statistically significant.

Indicating a strong positive relationship between the two variables. The correlation ranges from -1 to 1, where 1 signifies a perfect positive relationship, 0 indicates no relationship, and -1 denotes a perfect negative relationship. In this case, the value of 0.67 suggests that as the level of E-Public Engagement increases, the level of E-Governance also tends to increase, and vice versa. In conclusion, with the acceptance of all alternative hypotheses (H1), it can be concluded that there is a significant positive influence between the level of public engagement (E-Public Engagement) and electronic behavior (E-Behavioral) with electronic governance (E-Governance) in the context of a Smart City. The higher the level of public engagement and electronic behavior, the better the electronic governance of the smart city. Furthermore, the analysis also indicates that effective electronic governance significantly contributes to a city's status as a Smart City. Thus, public engagement and electronic behavior can be considered key factors driving progress towards the Smart City concept, with electronic governance as a crucial mediator in this relationship. In the context of this research, the focus is on the relationship between digitized public engagement behavior (E-Public Engagement) and the presence of e-governance. Therefore, this linear regression value indicates that when digitized public engagement behavior increases by one unit, the presence of e-governance is estimated to increase by approximately 4.25 units, assuming that the relationship is linear and statistically significant

Furthermore, the correlation coefficient between E-Behavioral and E-Governance is 0.54, indicating a positive relationship between the two variables, though with a moderate strength. A correlation of 0.54 implies that as the level of E-Behavioral increases, the level of E-Governance also tends to increase, but the correlation is not as strong as the relationship between E-Public Engagement and E-Governance. In other words, a positive correlation is observed. This table 1. Provides an overview of the percentage of community readiness in using E-Public facilities and infrastructure, with a sample size of 94 respondents for each category. With this sample size, it can be observed that approximately 70% of respondents in the E-Public category show readiness to adopt electronic government services. On the other hand, the Anti-E-Public category has a lower readiness percentage, approximately 33.3%. This interpretation is based on the responses from the samples taken from each category.

Community participation in decision-making processes and government services through electronic or online platforms can reflect the level of readiness or acceptance of technological innovation. The E-Public category (70%) with a high readiness percentage can be interpreted as an indication that the majority of respondents in this category have the readiness and willingness to adopt electronic government services, related to the Technology Adoption Theory. "Future-Forward Governance: Catalyzing Public Excellence via E-Public Engagement in Smart City Innovations"

No.	Category	Sample Size	E-Public Percentage
1	E-Public	93	70%
2	Anti-E-Public	93	33.3%





Figure 2: The important aspects of implementation for enhancing public engagement.

This theory supports the understanding that technology adoption depends on factors such as perceived benefits, ease of use, and trust.

On the other hand, the Anti-E-Public category (33.3%) with a lower readiness percentage may indicate barriers or dissent to the use of electronic government services. Similar to the Resistance to Change Theory, this lower readiness percentage suggests that some respondents may experience discomfort or concerns about the changes brought about by the adoption of new technology [16], [17], [18]. Understanding the community's response to electronic government services allows authorities to identify areas for improvement or more effective approaches to enhance technology adoption among the public. Alignment with relevant theories provides a deeper insight into the factors influencing readiness and technology adoption within society.

In three major cities, aligning E-Public Engagement with E-Governance poses significant challenges that require attention and innovative solutions. Firstly, while there is a growing trend towards implementing technology for enhancing public services in Smart Cities, ensuring seamless integration between E-Public Engagement and E-Governance remains a formidable task. The diverse socioeconomic backgrounds and rapid urbanization in these cities exacerbate the complexity of this challenge, as city governments must cater to the needs of a large and heterogeneous population while striving for inclusivity and responsiveness in governance. Secondly, Indonesia's unique context presents additional hurdles in achieving harmony between E-Public Engagement and E-Governance. Despite the substantial growth in information technology, there are persistent issues such as limited access to technology among certain segments of the population and concerns regarding data security. Moreover, immature policies and regulations further complicate the implementation of E-Public Engagement models. These challenges underscore the necessity for innovative approaches tailored to the specific circumstances of each city, emphasizing the importance of comprehensive research and collaboration between policymakers, practitioners, and academics to address them effectively.

To implement this research, strong policies and regulations are required to manage human behavior within a Smart City that prioritizes an emotional approach. This approach aims to enhance public engagement with e-government facilities.

Firstly, policies considering psychological and emotional aspects in the design and development of e-government facilities are needed. This involves providing user-friendly services that accommodate users' emotional needs, thus facilitating interaction and community engagement.

Secondly, clear regulations need to be established to ensure that personal data and sensitive information of the public are processed and stored securely and ethically. This is crucial for building public trust in the e-government system, making them feel comfortable and secure in interacting with the platform.

Furthermore, policies supporting the development of adequate information and communication technology (ICT) infrastructure are necessary to facilitate community access and connectivity to e-government facilities. This may include providing widespread and quality internet access as well as digital skills training for the public to effectively use e-government services. Additionally, efforts should be made to raise public awareness about the benefits and importance of participating in e-government services. This can be achieved through awareness campaigns and educational initiatives that emphasize an emotional approach to building emotional bonds and community engagement with e-government facilities.

The policies and regulations implemented should align with ethical values and principles of justice, while also considering individual rights in the use of technology and e-government services. Thus, a well-rounded e-government system can be created that is not only technically efficient but also considers humane and emotional aspects in the interaction between government and society in the context of a Smart City. IC4E 2024, March 18-21, 2024, Fukuoka-shi, Japan

4 CONCLUSSION

From the data analysis, it is evident that the level of community readiness for electronic government services (E-Public Engagement) in Indonesia, particularly in smart cities, varies. While the E-Public category shows a high readiness level (70%), the Anti-E-Public category exhibits a lower readiness level (33.3%). Factors such as perceived benefits, ease of use, and trust in technology can influence the adoption of electronic government services.

To improve E-Public Engagement, here are several recommendations: Firstly, there is a need to raise awareness among the public through informative campaigns. Communicate the benefits of electronic government services and enhance public understanding of the advantages, user-friendliness, and transparency offered. Secondly, efforts should be made to enhance the technological skills of the public. Provide training and technical support so that the community can become more proficient in utilizing electronic government services. Furthermore, ensure that electronic government services are easily accessible to all layers of society, including those who may have limited technology access. Enhance the security and privacy features of electronic government services as a step towards building public trust in technology usage. Additionally, collaboration with the private sector can be an effective strategy for developing innovative technological solutions that support the needs of the community. Conduct periodic monitoring and evaluation of the adoption of electronic government services. Evaluation results can be used for continuous improvement and enhancement. Lastly, involve the community in the development process of electronic government services to ensure that the services align with their needs and expectations. By implementing these recommendations, it is anticipated that E-Public Engagement in Indonesia, particularly in smart cities, will increase, fostering a more responsive ecosystem to community needs.

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The 2024 15th International Conference on E-Education, E-Business, E-Management and E-Learning (IC4E 2024)

Fukuoka, Japan | March 18-21, 2024

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(For Publication and Presentation)

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Wednesday, February 21, 2024

To Neng Susi Susilawati Sugiana, Ratih Hurriyati, Puspo Dewi Dirgantari, Bertha Musty, Andy Victor Pakpahan, Deden Sofyan Hamdani and Muhtarudin Muhtarudin, Universitas Pendidikan Indonesia, Indonesia;

Dear Neng Susi Susilawati Sugiana, Ratih Hurriyati, Puspo Dewi Dirgantari, Bertha Musty, Andy Victor Pakpahan, Deden Sofyan Hamdani and Muhtarudin Muhtarudin,

Thanks for your submission to the The 2024 15th International Conference on E-Education, E-Business,

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"Future-Forward Governance: Catalyzing Public Excellence via E-Public Engagement in Smart City Innovations"

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This research aims to investigate the impact and effectiveness of implementing the E-PUBLIC Engagement model in designing innovations in public services within the context of a Smart City. The research employs a quantitative approach, collecting data through online surveys involving participants such as city residents, government officials, and relevant stakeholders. The obtained data will be statistically analyzed to measure the levels of engagement, satisfaction, and the positive impact of implemented public service innovations. The uniqueness of this research lies in its holistic approach to E-PUBLIC Engagement implementation, which not only reasure the levels of engagement. The study is expected to provide in-depth insights into the dynamics of interactions between the government and the community is expected to provide in-depth insights into the dynamics of interactions between the government and the community and the community of an allow services through the utilization of E-Public Engagement technology. The findings can also serve as a foundation for governments and other stak is des in designing more efficient and innovation-oriented community engagement strategies in the future. Thus, this research has the potential to make a significant contribution to the development of adaptive and responsive governance models in the era of Smart Cities. evels but a line study

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Keywords: E-Public Engagement, Governance Innovation, Public Services, Smart City.

1 INTRODUCTION

Cities worldwide are increasingly interno ting technology to enhance the quality of life for their residents and optimize public services. The implementation of the Smart City concept has become a growing trend, where information and communication technology is utilized to improve efficiency, sustainability, and community engagement in various aspects of urban life. In this context, 29 Public Engagement, or public engagement through electronic platforms, becomes a crucial pillar for creating inclusive and responsive governance to meet the needs of the community. Although numerous studies have explored the concepts of Smart Cities and public engagement, there is still limited research specifically focusing on innovation in public services through the utilization of E-PUBLIC Engagement models. Indonesia, as a developing country experiencing rapid urbanization, faces unique challenges in providing effective and responsive public services. Therefore, an innovative approach is needed to ensure that public services can meet the highest quality standards.

Currently, there is a knowledge gap that needs to be addressed regarding the implementation of Public Engagement models in innovative public service delivery in Smart Cities, particularly in Indonesia. Some previous studies have highlighted the application of technology in public services or community engagement strategies but have been limited in fully exploring the potential of E-Public Engagement models. A deeper understanding is required of how this model can effectively enhance interactions between the government and the community to create innovative and relevant public services. Indonesia, with its large population and diverse socio-economic backgrounds, faces unique challenges in providing public services. The rapidly increasing urbanization rate puts additional pressure on city governments to deliver guality services. On the other hand, the development of information technology in Indonesia has shown signifizant growth, creating substantial opportunities to improve public services through digital innovation. However, it is important to acknowledge that the implementation of technology in the public sector does not always proceed smoothly. Challenges such as limited access to technology for some segments of the population, data security concerns, and immature policies can hinder the successful implementation of E-PUBLIC Engagement models. Therefore, this research will attempt to fill knowledge gaps by delving deeper into these aspects and seeking solutions adaptable by city governments in Indonesia. By understanding the unique conditions in Indonesia and exploring E-Public Engagement models in the context of Smart Cities, this research is expected to provide valuable insights for policymakers, practitioners Focusing on innovation in public services, this study has the potential to offer fresh perspectives on improving the quality of urban life in Indonesia while contributing to the development of Smart City governance theories and practices globally. here are four succinct and clear problem statements based on the provided background:

- How can the implementation of Electronic Public Engagement models enhance innovation in public service delivery in Smart Cities, particularly in Indonesia?
- How is the relationship between E-Public Engagement and E-Governance based on questionnaire results and statistical calculations?
- 3. How can Electronic Public Engagement models strengthen interactions between government and citizens to create more responsive and inclusive public services?
- 4. What contribution does this research 122 e in providing new insights into the development of Smart City governance in Indonesia and globally, especially in the context of improving urban quality of life?

1.1 Innovations on Smart City.

Smart City has become a prominent concept, drawing attention for its role in advancing sustainable urban development and leveraging technology to enhance the well-being of urban registers. Caragliu, Del Bo, and Nijkamp (2009) define a Smart City as one that employs digital technologies and information and communication technologies (ICT) to improve performance, reduce costs, engage more effectively with citizens, and engage overall quality of life[1]. contribute to this definition by characterizing Smart Cities across six dimensions: Smart Economy, Smart Governance, Smart Mobility, Smart Environment, Smart People, and Smart Living, covering diverse aspects of urban life from economic activities to environmental sustainability[2], [3], [4].

Within the realm of Smart City innovations, underscore the pivotal role of innovation in fostering sustainable contempose that Smart City innovations involve the integration of digital technologies with the goal of enhancing urban services, infrastructure, and overall quality of life for citizens. Extends this discourse by introducing the concept of "Innovation Ecosystems" within Smart Cities, emphasizing the interconnectedness of stakeholders—government, businesses, academia, and citizens—in driving and benefiting from urban innovations. stress the citizen-centric nature of Smart City innovations, asserting that prioritizing citizen engagement through technology is essential for the success of Smart City initiatives, leading to more responsive and inclusive urban govergence[2], [5]. further expands this perspective by introducing the notion of "intelligent governance," highlighting the use of information and communication technologies to empower citizens in actively participating in decision-making processes. In summary, Smart City innovations encapsulate a wide range of technological advancements aimed at improving urban living, with a strong emphasis on citizen engagement, sustainability, and the integration of various dimensions for truly innovative and inclusive urban spaces.

1.2 Technology-Driven Governance Concept.

Concept of technology-driven governance, many experts acknowledge the significance of implementing informatio to chology to enhance the quality of public services and government efficiency., e-government or electronic governance is the utilization of information and communication technology (ICT) to improve government efficiency, effectiveness, traggarency, and accountability. Fountain also emphasizes that the implementation of e-government can enhance the relationship between the government and the public, open access to information, and expedite decision-making processes[6], [7], [8].

1.3 E-Behaviour

The Theory of Planned Behavior (TPB) provides a relevant conceptual framework for understanding E-Behavior in the context of e-government. Accepting to TPB, individual behavior in adopting electronic government services is predicted by their intention, which is influenced by three main factors: attitude toward the behavior, subjective norm or individual perceptions of expectations from significant others, and perceived behavioral control. In the context of e-government a positive attitude toward the use of electronic services, positive influence from social groups or family, and an individual's perception of the ease of use and usefulness of such services an strengthen the intention to adopt E-Behavior[9]. [10]. The integration of TPB can offer significant insights into designing more effective strategies to encourage and understand user behavior in adopting electronic government services. Reference: Ajzen, I. (1991). The Theory of Planned Behavior.*Organizational Behavior and Human Decision Processes*.

1.4 Model E-Public Engagement.

In the context of the E-Public Engagement mode, West introduces the concept of "e-participation" as a form of community involvement through digital platforms. E-participation encompasses the use of technology to facilitate citizen participation in decision-making processes and policy planning[11], [12]. West emphasizes that eparticipation goes beyond providing information to the public; it also creates a two-way channel for dialogue and input. Thus, E-Public Engagement can be seen as an evolution of the more interactive and inclusive concept of egovernment.

Connected to the concept of e-management, Dubois and Gadde (2002) state that e-management involves the use of information technology to enhance the efficiency of management processes in the public sector. They underscore the importance of integrating information systems to improve coordination, communication, and collaboration within government organizations. By leveraging e-management, governments can be more effective in planning, implementing, and evaluating policies and public services. By combining the concepts of e-government and e-management, governments can create an ecosystem that is more responsive to the needs of the community, enhancing citizen participation and optimizing resource utilization through efficient management processes[13], [14], [15]. Overall, the integration of e-government and e-management can form a solid foundation for technologydriven governance that achieves sustainable development goals.

2 METHODE

Display The research method that can be used to analyze the influence of E-Public Engagement characteristics on the existence of e-governance in the context of a Smart City is statistical regression analysis. The sample will be drawn from a relevant population, specifically residents of three cities in Indonesia designated as Smart Cityes. A random sampling approach will be employed, and data will be collected through a questionnaire. To calculate the sample from a population of 17.2 million consisting of the residents of Jakarta, Semarang, and Bali, several things need to be considered. Thus, the sample calculation should take into account the population distribution of the three cities. The research stages:

- Formulating the Research Problem: Determining the research objectives and formulate a specific research problem related to the influence of E-Public Engagement characteristics on the existence of egovernance in the context of a Smart City.
- Literature Review: A literature review to understand existing knowledge about E-Public Engagement, egovernance, Smart City, and relevant analysis methods such as statistical regression.

- 3. Designing the Research Framework: Establish the conceptual framework of the research, the variables to be studied, and the relationships between variables. Develop research hypotheses for using regression analysis.
- 4. Sampling Selection: Calculate the required sample size to achieve the desired accuracy in the study. Apply a random sampling approach to select respondents from the target population, namely residents of Jakarta, Semarang, and Bali.
- Development of Research Instruments: Design a questionnaire to collect data on E-Public Engagement characteristics and perceptions of e-governance from respondents. Ensure that the questionnaire has grequate validity and reliability.
- Data Collection: Collect data from the selected respondents using the prepared questionnaire. Ensure
 that the data collection process is carried out carefully and follows the established procedures.
- 7. Data Analysis: Utilize statistical regression analysis to evaluate the relationship between E-Public Engagement characteristics and the existence of e-governance in the context of a Smart City. This analysis will help identify whether there is a significant influence of E-Public Engagement characteristics on e-governance.
- Interpretation of Results: Interpret the results of the data analysis and assess the research hypotheses. Discuss the implications of the findings for theory and practice in the field of E-Public Engagement and egovernance.
- Preparation of Research Report: Present the research findings in a systematic and clear report. The report should cover all research stages, methodology, results, and conclusions supported by data.

The objective is to obtain responses from 93 participants, following a research model as outlined below



Figure 1: Model depicts the relationship between the variables of E-Public Engagement, E-Behavioral, E-Governance, and Smart City

- 1. Hypothesis m the Influence of E-Public Engagement on E-Governance:
 - H0: There is no significant influence between the level of E-Public Engagement and the level of E-Geremance in a Smart City.
 - H1: There is a significant influence between the level of E-Public Engagement and the level of E-Governance in a Smart City.
- 2. Hypothesis on the Influence of E-Behavioral on E-Governance:
 - H0: There is no significant influence between the level of E-Behavioral and the level of E-Governance in a Smart City.
 - H1: There is a significant influence between the level of E-Behavioral and the level of E-Governance in a Smart City.
- 3. Hypothesis en the Influence of E-Governance on Smart City:
 - H0: There is no significant influence between the level of E-Governance and the status of being a Smart City.
 - H1: There is a significant influence between the level of E-Governance and the status of being a Smart City.
- 4. Hypothesis on the Influence of E-Public Engagement on Smart City (through E-Governance):

- H0: There is no significant influence between the level of E-Public Engagement and the status of being a Smart City, mediated by the influence of E-Governance.
- H1: There is a significant influence between the level of E-Public Engagement and the status of being a Smart City, mediated by the influence of E-Governance.

being a Smart City, mediated by the influence of E-Governance. The testing for the hypotheses will be carried out through statistical tools. Statistical analysis, such as regression analysis, will be employed to examine the relationships and determine the significance of the variables. Utilizing these statistical tools will provide a robust method for assessing the proposed associations between E-Public Engagement, E-Behaviorge - Governance, and the status of being a Smart City. The results obtained from these statistical tests will offer valuable insights into the strength and significance of the identified influences, contributing to a comprehensive understanding of the dynamics within the studied framework.

3 RESULTS AND DISCUSSION

The empirical findings provide a comprehensive analysis of the dynamic relationships among E-Public Engagement, E-Behavioral, E-Governance, and the status as a Smart City within the Indonesian context. This research employs statistical regression analysis with a sample of 93 randomly selected residents from three cities in Indonesia designated as Smart Cities. Hypotheses regarding the influence of E-Public Engagement and E-Behavioral on E-Governance, the impact of E-Governance on the status of being a Smart City, and the influence of E-Public Engagement on the Smart City status through E-Governance will be scrutinized. The complex depiction of these relationships is defined, providing a profound understanding of the key factors contributing to Smart City development and explaining the interactions among citizen engagement, behavioral patterns, governance effectiveness, and the overall concept of a Smart City.

With a regression coefficient value between E-Public Engagement and E-Governance of 1.27, and a table value at a significance level of 0.05 of 1.96 (assumed for a significance level of 5% with relevant degrees of freedom), we can interpret the results as follows: The regression coefficient (1.27) is greater than the t-table value (1.96) at a significance level of 0.05, then greater than the t-table value (1.96) at a significance level of 0.05, then greater than the t-table value (1.96) at a significance level of 0.05. In conclude that changes in the E-Public Engagement and E-Governance at a significance level of 0.05. In conclude that changes in the E-Public Engagement variable significantly contribute to changes in the E-Governance variable. In other words, the level of public involvement in electronic governance processes (e-governance) has a significant impact on Smarg City advancement in the observed context. Therefore, if the regression coefficient value (1.27) is greater than the table value (1.96) at a significance level of 0.05, the interpretation is that the relationship between E-Public Engagement and E-Governance is statistically significant. B Indicating a strong positive relationship between the two variables. The correlation ranges from -1 to 1,

Indicating a strong positive relationship between the two variables. The correlation ranges from -1 to 1, where 1 signifies a perfect positive relationship, 0 indicates no relationship, and -1 denotes a perfect negative relationship. In this case, the value 0 f 0.67 suggests that as the level of E-Public Engagement increases, the level of E-Governance the tends to increase, and vice versa. In conclusion, with the acceptance of all alternative hypotheses (H1), it can be concluded that there is a significant positive influence between the level of public engagement for Public Engagement) and electronic behavior (E-Behavioral) with electronic governance (E-Governance) in the fragext of a Smart City. The higher the level of public engagement and electronic behavior, the better the electronic governance of the smart city. Furthermore, the analysis also indicates that effective electronic governance significantly contributes to a city's status as a Smart City. Thus, public engagement and electronic behavior can be considered key factors driving progress towards the Smart City concept, with electronic governance as a crist I mediator in this relationship. In the context of this research, the focus is on the relationship between digitized public engagement behavior (E-Public Engagement) and the presence of e-governance. Therefore, this linear regression value indicates that when digitized public engagement behavior increases by one unit, the presence of e-governance is estimated to increase by approximately 4.25 units, assuming that the relationship is linear and statistically significant

Furthermore, the correlation coefficient between E-Behavioral and E-Governance is 0.54, indicating a positive relationship between the two variables, though with a moderate strength. A correlation of 0.54 implies that as the level of E-Behavioral increases, the level of E-Governance also tends to increase, but the correlation is not

as strong as the relationship etween E-Public Engagement and E-Governance. In other words, a positive correlation is observed. This table 1. Progress an overview of the percentage of community readiness in using Etropic facilities and infrastructure, with a sample size of 94 respondents for each category. With this sample size, it can be observed that approximately 70% of respondents in the E-Public category show readiness to adopt electronic government services. On the other hand, the Anti-E-Public category has a lower readiness percentage, approximately 33.3%. This interpretation is based on the responses from the samples taken from each category.

Table 1. Overview Of The Percentage Of Community Readiness					
No.	Category	Sample Size	E-Public Percentage		
1	E-Public	93	70%		
2	Anti-E-Public	93	33.3%		

Community participation in decision-making processes and government services through electronic or online platforms can reflect the level of readiness or acceptance of technological innovation. The E-Public category (70%) with a high readiness percentage can be interpreted as an indication that the major of the providents in this category have the readiness and willingness to adopt electoric or government services, related to the Technology Adoption Theory. This theory supports the understanding that technology adoption depends on factors such as perceived benefits, ease of use, and trust.

On the other hand, the Anti-E-Public category (33.3%) with a lower readiness percentage may indicate barriers or dissent to the use of electronic government services. Similar to the Resistance to Change Theory, this lower readiness percentage suggests that some respondents may experience discomfort or concerns about the changes brought about by the adoption of new technology[16], [17], [18]. Understanding the community's response to electronic government services allows authorities to identify areas for improvement or more effective approaches to enhance technology adoption among the public. Alignment with relevant theories provides a deeper insight into the factors influencing readiness and technology adoption within society.

In three major cities, aligning E-Public Engagement with E-Governance poses significant challenges that require attention and innovative solutions. Firstly, while there is a growing trend towards implementing technology for enhancing public services in Smart Cities, ensuring seamless integration between E-Public Engagement and E-Governance remains a formidable task. The diverse socio-economic backgrounds and rapid urbanization in these cities exacerbate the complexity of this challenge, as city governments must cater to the needs of a large and heterogeneous population while striving for inclusivity and responsiveness in governance. Secondly, Indonesia's unique context presents additional hurdles in achieving harmony between E-Public Engagement and E-Governance. Despite the substantial growth in information technology, there are persistent issues such as limited access to technology among certain segments of the population and concerns regarding data security. Moreover, immature policies and regulations further complicate the implementation of E-Public Engagement models. These challenges underscore the necessity for innovative approaches tailored to the specific circumstances of each city, emphasizing the importance of comprehensive research and collaboration between policymakers, practitioners, and academics to address them effectively.

To implement this research, strong policies and regulations are required to manage human behavior within a Smart City that prioritizes an emotional approach. This approach aims to enhance public engagement with egovernment facilities.



Figure 2. The important aspects of implementation for enhancing public engagement.

Firstly, policies considering psychological and emotional aspects in the design and development of egovernment facilities are needed. This involves providing user-friendly services that accommodate users' emotional needs, thus facilitating interaction and community engagement.

Secondly, clear regulations need to be established to ensure that personal data and sensitive information of the public are processed and stored securely and ethically. This is crucial for building public trust in the egovernment system, making them feel comfore the and secure in interacting with the platform.

Furthermore, policies supporting the development of adequate information and communication technology (ICT) infrastructure are necessary to facilitate community access and connectivity to e-government facilities. This may include providing widespread and quality internet access as well as digital skills training for the public to effectively use e-government services. Additionally, efforts should be made to raise public awareness about the benefits and importance of participating in e-government services. This can be achieved through awareness campaigns and educational initiatives that emphasize an emotional approach to building emotional bonds and community engagement with e-government facilities.

The policies and regulations implemented should align with ethical values and principles of justice, while also considering individual rights in the use of technology and e-government services. Thus, a well-rounded egovernment system can be created that is not only technically efficient but also considers humane and emotional aspects in the interaction between government and society in the context of a Smart City.

4 CONCLUSSION

From the data analysis, it is evident that the level of community readiness for electronic government services (E-Public Engagement) in Indonesia, particularly in smart cities, varies. While the E-Public category shows a high readiness level (70%), the Anti-E-Public category exhibits a lower readiness level (33.3%). Factors such as perceived benefits, ease of use, and trust in technology can influence the adoption of electronic government services.

To improve E-Public Engagement, here are several recommendations: Firstly, there is a need to raise awareness among the public through informative campaigns. Communicate the benefits of electronic government services and enhance public understanding of the advantages, user-friendliness, and transparency offered. Secondly, efforts should be made to enhance the technological skills of the public. Provide training and technical support so that the community can become more proficient in utilizing electronic government services. Furthermore, ensure that electronic government services are easily accessible to all layers of society, including those who may have limited technology access. Enhance the security and privacy features of electronic government services as a step towards building public trust in technology usage. Additionally, collaboration with the private sector can be an effective strategy for developing innovative technological solutions that support the needs of the community. Conduct periodic monitoring and evaluation of the adoption of electronic government services. Evaluation results can be used for continuous improvement and enhancement. Lastly, involve the community in the development process of electronic government services to ensure that the services align with their needs and expectations. By implementing these recommendations, it is anticipated that E-Public Engagement in Indonesia, particularly in smart cities, will increase, fostering a more responsive ecosystem to community needs.

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