JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

The ROLE OF ELECTRONIC GOVERNMENT IN SIMPLIFICATION OF MANAGEMENT PROCEDURES IN THE OMAN PUBLIC SECTOR

Badriya Moosa Khamis Al-Balushi

Public Policy and Public Administration,

University of International Business and Economics (UIBE), Beijing, China

Abstract : This study examines how e-government contributes to improving administrative processes in the Omani public sector, focusing on employees working in this sector in the Sultanate of Oman. A questionnaire was distributed to 300 employees to assess the benefits and challenges of implementing e-government programs. The report focuses on how these programs improve the efficiency of public administration and governance. The study uses a quantitative methodology that combines descriptive and inferential analysis to collect primary and secondary data from public sector employees through structured questionnaires. Initial findings reveal significant challenges, such as poor contract management, transparency concerns, and a lack of training on e-government tools. The research highlights the importance of ongoing training and strong oversight systems, while offering specific recommendations to increase the efficiency, integrity, and transparency of administrative procedures. By addressing these issues, the paper demonstrates how e-government can be a revolutionary tool for improving public sector performance and accelerating economic growth in Oman.

Index Terms - E-government; Public Sector; Administrative efficiency; Service delivery; Customer Satisfaction; Digital transformation.

I. INTRODUCTION

The Sultanate of Oman seeks to simplify e-government procedures for the public sector, driven by the growing need for efficient and accessible public services in the digital age. E-government programs aim to enhance communication between citizens and government agencies by improving procedures and reducing bureaucratic inefficiencies using information and communications technology. The Omani government has recognized the importance of establishing a citizen-centric approach to service delivery, focused on meeting the needs and expectations of the general public. According to multiple studies highlighting the importance of citizen participation in e-government activities, this approach is crucial to enhancing trust and interaction between citizens and their government (Gilmore and D'Souza, 2006; Ponson et al., 2012).

To create a more cohesive and effective public service system, e-government implementation in Oman has been characterized by initiatives to integrate services across multiple government agencies. According to Evans and Yen (2005), such integration is essential to enhancing access to services and ensuring that users receive prompt and accurate answers to their questions. Additionally, by providing a single point of entry for many services, one-stop shops improve the overall user experience and demonstrate the government's commitment to streamlining procedures (Trochidis et al., 2008). Despite these achievements, challenges remain, particularly in ensuring adequate technological infrastructure and overcoming disparities in citizens' digital literacy levels.

The government's ability to remove these barriers and create an environment conducive to the use of digital services will determine the success of e-government initiatives in Oman (Al-Azri et al., 2010). To improve public sector efficiency and service delivery, this study will examine the current status of e-government in Oman, identify areas for improvement, and propose strategies for streamlining processes.

1.2. RESEARCH OBJECT

1) To determine whether e-government impacts customer satisfaction.
2) To determine whether e-government improves procedures.

1.3. RESEARCH QUESTION

1) Does the implementation of e-government have an impact on customer satisfaction with public services?
2) Does the implementation of e-government have an impact on the efficiency of procedures in the public sector?

1.4. HYPOTHESES

(H1): The implementation of e-government positively impacts customer satisfaction with public services.

(H2): The implementation of e-government improves the efficiency of procedures in the public sector.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The potential of e-government to increase procedural efficiency and customer satisfaction highlights its importance in streamlining management practices in the Omani public sector. According to Gilmore and D'Souza (2006), e-government is a set of measures that facilitate individuals' interaction with government services, seeking to enhance productivity and reduce costs. Affordability, or the availability of necessary resources (Al-Zahrani, 2011), and effort expectations, or ease of use (Venkatesh et al., 2003), are important factors influencing the adoption of e-government services. Performance expectations, or the belief that e-government will improve service delivery and job performance, are also important (Al-Shafi, 2009). However, the lack of citizen engagement in e-government projects remains a significant obstacle, especially in developing countries such as Oman, where citizen engagement in the planning and implementation phases is critical to building trust and ensuring that services meet user needs (Bonson et al., 2012). Furthermore, the success of these programs depends on the government's role in encouraging the use of technology and providing adequate support (Al-Azri et al., 2010). E-government in Oman must begin with a comprehensive understanding of user needs, then allocate resources effectively and encourage active citizen participation to improve public service delivery and overall administrative efficiency.

Customer satisfaction and procedural efficiency are influenced by the significant streamlining of administrative processes in the public sector as a result of Oman's adoption of e-government. E-government activities enhance the connection between citizens and government services by providing easily accessible electronic services, reducing the time and effort required to access public services, leading to increased customer satisfaction (Al-Shafi, 2009). This supports the claim that e-government enhances consumer satisfaction. Furthermore, the integration of ICT improves procedural efficiency by streamlining public sector processes, reducing bureaucratic delays, and eliminating the need for in-person visits to government offices (IMF Staff Reports, 2025).

The notion that e-government increases procedural efficiency supports the view that it will enhance business performance and service delivery (Al-Shafi, 2009). However, effective outcomes are hampered by factors such as weak citizen participation in the development and deployment of e-government services. Building trust in government processes and ensuring that services meet citizens' needs depends largely on citizen participation (Bonson et al., 2012). To encourage citizens to use e-government services, the government must play a vital role in promoting technology adoption and providing adequate support (Azri et al., 2010). Therefore, using e-government to improve public service delivery and administrative efficiency in Oman requires focusing on user needs, allocating resources, and engaging citizens.

By enhancing procedural efficiency and customer satisfaction, e-government in Oman improves public sector management. Public satisfaction increases as a result of improved accessibility and use of e-government. Technology also speeds up processes, avoiding delays and the need for in-person visits. However, issues such as a lack of public participation in the design of these services can reduce their effectiveness. Engaging people is essential to building trust and ensuring that services meet their needs. Government support for technology adoption is also essential to boost usage. Overall, improving public service delivery and administrative effectiveness requires prioritizing user needs and citizen participation.

2.1. E-GOVERNMENT AND CUSTOMER SATISFACTION

E-government implementation significantly impacts customer satisfaction with public services, according to numerous studies. The "experience effect," where consumers compare their interactions with government services to their expectations, is commonly used to describe customer satisfaction. This emotional reaction influences citizens' continued use of e-government platforms and is essential for building long-term relationships with them (Hijran, Al-Dubi, et al., 2023). Furthermore, customer trust and willingness to accept new services are influenced by their satisfaction, especially when these services are accurate, efficient, and prompt (Al-Karaiji and Amin, 2021). Studies conducted in the United States have found that high-quality systems and services have a significant impact on overall customer satisfaction (Y. Li and Zhang, 2020; Mirkowski et al., 2023; Furamoto et al., 2018). While expectation confirmation theory argues that the difference between expected and actual service performance affects customer satisfaction, theoretical frameworks such as the Technology Acceptance Model (TAM) emphasize the importance of perceived usefulness and ease of use in user interactions (Berto et al., 2010; Jaeger and Thompson, 2003). However, issues such as reluctance to change and the digital divide remain, underscoring the need for further research to understand how enjoyment increases with technological advancement (Moon and Norris, 2005; Reddick, 2005). Consumer happiness and e-government adoption are often closely related in the literature, highlighting the need for further study on this topic. Enhancing public sector customer satisfaction requires the implementation of e-government services. In stark contrast to traditional approaches, which often involve lengthy procedures and in-person meetings, e-government uses digital technologies to provide citizens with convenient and efficient access to a wide range of services. According to studies, the quality of e-government services—including responsiveness, ease of use, and service reliability—has a significant impact on customer satisfaction. In addition to meeting user expectations, excellent e-government services also build loyalty and trust, promoting sustainable use of these platforms.

Theoretical frameworks such as the Technology Acceptance Model (TAM) highlight how perceived usefulness and ease of use impact customer satisfaction. However, issues such as the digital divide and disparities in digital literacy can reduce the effectiveness of e-government initiatives, particularly in developing countries. Recognizing the benefits of e-government and ensuring that all individuals have access to improved public services depends on addressing these issues. Overall, research shows a strong relationship between e-government adoption and higher levels of customer satisfaction, highlighting the importance of continuous development to meet the evolving needs of the population.

E-government services significantly increase customer satisfaction in the public sector by improving accessibility, convenience, and overall quality of service delivery. By eliminating in-person visits and shortening waiting times, e-government platforms enable individuals to access a wide range of government services online, improving accessibility, particularly for residents of remote areas or those with mobility challenges. The quality of these services is critical; reliable, efficient, and user-friendly e-government systems contribute to user satisfaction and positive user experiences. Research indicates that when government services meet or exceed citizen expectations, satisfaction levels improve significantly. Studies show that effective e-government systems in countries like the United States contribute to overall customer satisfaction.

Furthermore, trust in the public sector is closely linked to customer satisfaction. When citizens have a positive experience with e-government services, their trust increases, motivating them to use these platforms more. Theoretical frameworks, such as the Technology Acceptance Model (TAM), highlight the importance of perceived usefulness and ease of use in influencing users' interactions with e-government services. This model asserts that citizens are more likely to use services that are easy to use and meet their needs. However, factors such as the digital divide and aversion to change can hinder the performance of e-government programs, reducing overall customer satisfaction and preventing certain segments of the population from fully benefiting from digital services. To ensure universal access to and efficient use of e-government services, it is essential to address these issues through targeted awareness and education.

The study supports the hypothesis that the implementation of e-government services enhances public sector customer satisfaction. By prioritizing service quality and user experience and removing existing barriers, governments can increase citizen engagement and satisfaction with e-government platforms. In the public sector, customer satisfaction, particularly with regard to e-government services, is described as an emotional reaction resulting from individuals' evaluations of their experience with these services, highlighting the importance of building mutual trust and sustaining relationships. According to American studies, higher-quality systems are associated with higher levels of satisfaction. Expectation confirmation theory and the technology adoption model describe the importance of perceived ease of use, as well as the difference between expected and actual service performance. While e-government can enhance satisfaction, challenges such as resistance to change and the digital divide remain, meaning further research is needed to understand how satisfaction evolves with technological advancements. Therefore, we hypothesize:

H1: E-Government has a positive impact on citizen satisfaction.

2.2. E-GOVERNMENT AND IMPROVED PROCEDURES

The use of e-government to streamline administrative processes in the Omani public sector has been a major focus of recent research. The research question, “How e-government adoption impacts the effectiveness of public sector operations,” is closely related to these studies. According to the theory, “e-government implementation improves the efficiency of procedures in the public sector.”

E-government transforms administrative processes by leveraging digital technologies to enhance public administration and service delivery. A significant study highlights the need for user-centric e-government project design, which emphasizes user engagement to ensure services efficiently meet their needs. In addition to increasing citizen satisfaction, this user-centric approach enhances public trust in government services (Berto et al., 2016).

The integration of mobile technology also enhances ease and interactivity by enabling citizens to access government services via smartphones (Al-Azab et al., 2021). By reducing fraud and enhancing the integrity of public transactions, blockchain technology improves the transparency and security of administrative processes (Chang et al., 2019). Additionally, big data analytics supports government institutions in making informed, data-driven decisions, enhancing service delivery and resource allocation in response to citizen demands (Jansen et al., 2020).

To protect sensitive data and maintain public trust, cybersecurity challenges arising from the expansion of e-government services must be addressed (Kankanhalli et al., 2021). Overall, research indicates that while e-government offers numerous opportunities to improve administrative performance, its successful implementation depends on addressing challenges such as cybersecurity.

Several studies have demonstrated how e-government significantly enhances administrative processes in the Omani public sector. According to Berto et al. (2016), user-centered design is essential to ensure that services meet the needs of the public and enhance trust in government operations. The use of mobile technology increases interactivity and accessibility of services by facilitating citizens' communication with government agencies via smartphones (Alazab et al., 2021). Additionally, the implementation of block chain technology reduces fraud and ensures the integrity of public transactions by increasing the transparency and security of administrative processes (Zhang et al., 2019).

Using big data analytics, government agencies can make data-driven decisions that improve resource allocation and enhance service delivery while taking into account public needs (Janssen et al., 2020). However, with the expansion of e-government services, cybersecurity concerns arise, necessitating strict safeguards to protect private information and maintain public trust (Kankanhalli et al., 2021). Taken together, these factors demonstrate how e-government can significantly improve procedural efficiency while emphasizing the importance of addressing related challenges.

E-government can be defined as the use of digital technologies to improve service delivery and public administration, significantly transforming administrative processes. Significant research highlights the need for user-centric design and calls for citizen engagement to ensure services meet their needs, which increases satisfaction and trust in government. Through the use of mobile technologies, citizens can use their mobile phones to communicate with government agencies. Additionally, big data analytics enables businesses to make data-driven decisions, while block chain technology enhances transparency and security in administrative procedures. Despite these developments, cybersecurity remains a critical issue that requires effective solutions to protect private data and maintain public trust. Overall, e-government has significant growth potential, but its success depends on addressing cybersecurity.

According to current research, e-government implementation improves process efficiency and has a positive impact on administrative efficiency in the Omani public sector. E-government focuses on user-centered design to engage individuals and meet their needs, leading to increased satisfaction and trust.

Important developments include block chain technology, which enhances security and transparency by reducing fraud, and the integration of mobile technology, which facilitates access to services via smartphones. Furthermore, big data analytics facilitates informed decision-making by better allocating resources in response to citizen requests.

To protect sensitive data and maintain public trust, cybersecurity issues arising from the growth of e-government services must be addressed. Taking all aspects into account, e-government offers numerous opportunities for increased efficiency, but resolving these issues is essential for its successful implementation. Therefore, we hypothesize:

H2 : E-Government has a positive impact on Improved Procedures.

3 . THEORETICAL FRAMWORK

The study "The Role of E-Government in Simplifying Administrative Procedures in the Omani Public Sector" is theoretically based on several fundamental concepts that influence the adoption and effectiveness of e-government initiatives. This model is based on the concept of customer centricity, which emphasizes the importance of aligning government services with citizens' needs and preferences. This technique is crucial to ensuring the ease of use and accessibility of e-government services, which increases consumer satisfaction and engagement (Gilmore and D'Souza, 2006). According to Venkatesh et al. (2003), the framework also includes elements of enabling conditions, effort expectations, and performance expectations. Resources and support systems, such as government subsidies and technological infrastructure, that enable citizens to use e-government services efficiently are known as facilitating conditions (Al-Zahrani, 2011). Individuals' propensity to interact with e-government platforms is significantly influenced by the ease of use of these services, which is linked to effort expectations (Barua, 2012).

According to Al-Shafi et al. (2009), performance expectations are the belief that the implementation of e-government services will enhance business performance and efficiency, encouraging citizens to adopt these technologies. These themes combine to form a comprehensive framework that guides research into how e-government can help the Omani public sector streamline its administrative processes. It also incorporates a variety of evolving concepts that influence the adoption and effectiveness of e-government initiatives. This model is based on the concept of digital inclusion, which emphasizes the importance of providing equal access to e-government services for all people, regardless of their financial status, so they can participate in digital interactions with government (Hicks, 2006).

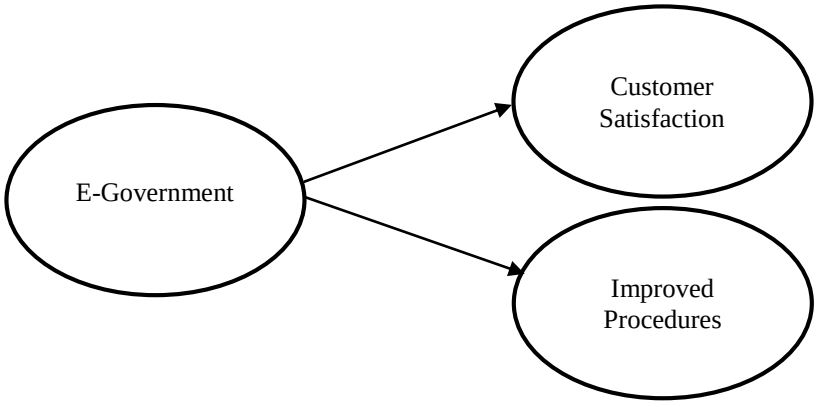
The concept of trust in technology, which emphasizes the need to enhance citizens' confidence in the reliability and security of e-government platforms, enhances this inclusion (Carter and Belanger, 2005). Additionally, the framework incorporates the concept of user experience (UX), which prioritizes the design and usability of e-government services to enhance user satisfaction and engagement (Hassenzahl, 2008). According to Mergil (2016), it can be said to incorporate the idea of continuous feedback loops, which calls for systematically gathering user input to support continuous improvements in e-government services. When combined, these ideas provide a new perspective on how e-government can contribute to streamlining administrative processes in the Omani public sector.

It also considers user experience (UX), which integrates a variety of modern concepts to enhance understanding of how people use technology. It is based on the concept of quality of experience (QoE), which focuses on subjective feelings and emotional reactions during product use, with an emphasis on the qualitative aspects of interaction (Hassenzahl, 2008). Assuming that user experiences are dynamic and change over time based on context and emotional states, this approach also recognizes dynamic interaction. To create meaningful interactions that meet more fundamental human needs, such as efficiency and autonomy, this model encourages a human-centered design approach by focusing on user desires and aspirations (Ryan and Deci, 2000). Additionally, the model incorporates contextual relevance, highlighting the need to understand the user's environment and social dynamics, which significantly impact ease of use and enjoyment (Venkatesh et al., 2012). It emphasizes the importance of feedback channels in enabling ongoing customer input to influence iterative design improvements and ensure that products meet user expectations (Mergell, 2016). When combined, these factors provide a comprehensive view of the user experience, aiming to create more engaging and satisfying experiences.

Considering all aspects, the theoretical foundations of the study include several important ideas that influence the adoption and effectiveness of e-government initiatives. This approach is based on customer-centricity, which aims to increase accessibility and satisfaction by aligning citizens' expectations with government services. It also includes features such as performance expectations (belief in increased work efficiency), effort expectations (convenience of use), and facilitation conditions (resources and citizen support).

Furthermore, it emphasizes digital inclusion to ensure equal access to e-government services for all individuals, as well as the importance of trust in technology in increasing user confidence. Another important focus area is user experience (UX), which integrates concepts such as dynamic interaction and quality of experience (QoE) to highlight the emotional aspects of technology use. To improve e-government services, the human-centered design approach prioritizes user needs, contextual relevance, and continuous feedback. When combined, these elements provide a comprehensive understanding of how e-government can contribute to facilitating administrative processes in Oman.

Figure 1, Theoretical framework The Role of E-Government on Customer Satisfaction and Productivity



4. RESEARCH METHODOLOGY AND DATA ANALYSIS

Focusing specifically on public sector employees, this study examines how e-government contributes to accelerating administrative processes in the Omani public sector. In line with the recommendations, the study's methodology combines descriptive and interpretive methods. Descriptive analysis is its primary focus, making it ideal for new research topics. To fully understand the topic, a quantitative approach was used.

A standardized questionnaire will be distributed to 300 public sector employees to collect primary data. This questionnaire will include both closed and open questions to enable both quantitative analysis and qualitative insights into complex situations not fully covered by closed questions. This study utilizes a variety of data collection methodologies to ensure the validity and reliability of the findings, and that they accurately reflect the practical applications of e-government and accelerating administrative processes in the public sector.

4.1. POPULATION AND SAMPLE

The study "The Role of E-Government in Simplifying Administrative Procedures in the Omani Public Sector" is a suitable study for a sample of 300 Omani public sector employees. First, these employees closely align with the study's objectives of examining how e-government impacts customer satisfaction and process improvement, given their active participation in implementing and benefiting from e-government programs. By ensuring that participants have relevant experience in public sector activities, the purposive sampling method enhances the reliability of the collected data. The sample also included a wide range of administrative staff, IT specialists, and management specialists, each with a distinct perspective on e-government procedures and how they impact management practices.

Although the sample size is small compared to larger studies, the 300-person sample size allows for a comprehensive assessment of participants' experiences by providing targeted qualitative insights and in-depth analysis. The study aims to provide reliable results that reflect the broader impact of e-government on operational efficiency and service delivery in the public sector, focusing on those directly involved in public sector activities. This will allow for a comprehensive study of its impact.

4.2. SOURCES OF DATA AND DATA ANALYSIS METHODS

This study examines how e-government contributes to streamlining administrative processes in the public sector in the Sultanate of Oman, focusing on public sector employees. We used primary and secondary data sources to collect comprehensive information in line with the study objectives. Questionnaires were distributed to 300 public sector employees to collect primary data. This approach facilitated comprehensive input from employees at all levels. The questionnaires also provided a systematic way to obtain quantitative data from a larger number of participants. Our understanding of routine processes and interactions in the Omani public sector has improved as a result of the observational data.

This comprehensive data collection strategy increased the reliability of the study by thoroughly investigating how e-government contributes to the expansion of the public sector in the Sultanate of Oman. Several procedures were used to examine the collected data, including processing questionnaire responses using the Statistical Package for the Social Sciences (SPSS) and presenting the results with descriptive statistics. To facilitate analysis, values were replaced with a five-point Likert scale. This analysis revealed important trends and patterns related to this issue.

4.3. Reliability Test

Table 1. Reliability Test of questionnaire.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.734	.738	9

Source: SPSS output from questionnaire respondent

The study, "The Role of E-Government in Simplifying Administrative Procedures in the Public Sector in the Sultanate of Oman," used a questionnaire with a Cronbach's alpha coefficient of 0.734, indicating acceptable internal consistency for its items according to reliability statistics. This consistency is confirmed by a slightly higher Cronbach's alpha of 0.738, based on standardized items. While increasing the number of items may increase reliability and provide more comprehensive insights, these results demonstrate that the two questionnaire items successfully measure the same underlying concept. Overall, these results support the study's objective of determining how e-government initiatives impact the simplification of procedures in the public sector, as the questionnaire is expected to yield consistent results among the 300 Omani public sector employees surveyed.

4.4. Results of Descriptive Statics of Study Variables

Table 2. Descriptive Measures of responses

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Using the Internet	300	1	5	3.82	1.205
Customers Satisfaction	300	1	3	2.54	.768
Improve Procedures	300	1	3	2.58	.667
Creation of a Unified System	300	4	5	4.56	.497
Facilities of EG	300	1	3	2.42	.752

Table Source: SPSS output from scale questionnaire respondent

The data reveals significant variation in perceptions of various elements. While participants had a favorable attitude toward internet use (mean score 3.82), there is a clear need to improve customer satisfaction and procedures (mean scores 2.54 and 2.58, respectively). On the other hand, a high mean score of 4.56 indicates that participants strongly support the concept of a unified system, meaning they all agree on its importance. Furthermore, the lowest mean score, 2.42, highlights the urgent need for reform by indicating a high level of dissatisfaction with services. The public sector should implement a unified support system and prioritize facilities and customer satisfaction to maximize the experience.

4.5. Demographic Characteristics of Respondent

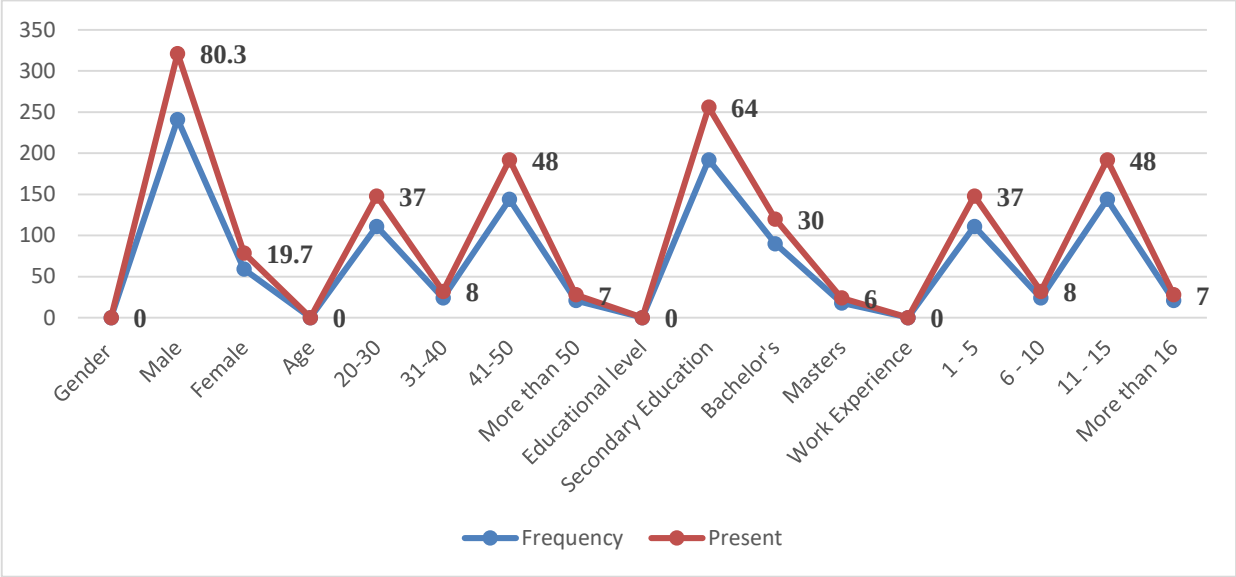
Table 3. Demography of respondents

No	Characteristics	Frequency	Present
1	Gender		
	Male	241	80.3
	Female	59	19.7
	Total	300	100
2	Age		
	20-30	111	37
	31-40	24	8
	41-50	144	48
	More than 50	21	7
	Total	300	100
3	Educational level		
	Secondary Education	192	64
	Bachelor's	90	30
	Masters	18	6
	Total	300	100
4	Work Experience		
	1-5	111	37
	6-10	24	8
	11-15	144	48
	More than 16	21	7
	Total	300	100

Source: own data SPSS output

The table highlights the characteristics of a sample of 300 respondents from the Omani public sector, using descriptive statistics such as frequency distributions and percentage calculations. This strategy is effective because it provides a concise summary of demographic data, making it easier to identify trends and patterns without drawing conclusions. The age group analysis shows a significant concentration in the 41-50 age group (48%), underscoring the importance of this demographic, while the gender distribution shows a significant male majority (80.3%), indicating that the majority of Omani public sector employees are male. Additionally, the majority of respondents (64%), by educational level, have only a secondary education, indicating a need for further training or education. Finally, a significant proportion of respondents (48%) reported having between 11 and 15 years of work experience, indicating a workforce with a respectable level of expertise. Considering all aspects, these descriptive statistics enhance the validity and clarity of the results, and provide a solid foundation for further study.

Figure 2, Demographic Characteristics of Respondent



Source: own data, SPSS output

4.6. Correlation Test

Table 4. Correlation among variables

		Customers Satisfaction	Improve Procedures	Facilities of EG
Customers Satisfaction	Pearson Correlation	1	.370**	.356**
	Sig. (2-tailed)		.000	.000
	N	300	300	300
Improve Procedures	Pearson Correlation	.370**	1	.458**
	Sig. (2-tailed)	.000		.000
	N	300	300	300
Facilities of EG	Pearson Correlation	.356**	.458**	1
	Sig. (2-tailed)	.000	.000	
	N	300	300	300

**. Correlation is significant at the 0.01 level (2-tailed).
Source: own data, SPSS output

The table illustrates a correlation analysis using Pearson's correlation coefficient to examine the relationship between EG's facilities, process improvement, and customer satisfaction. When comparing one variable to the others, statistically significant positive correlations are found. Customer satisfaction is strongly related to EG's facilities ($r = 0.356$, $p < 0.001$) and process improvement ($r = 0.370$, $p < 0.001$). In addition, there is a strong correlation ($r = 0.458$, $p < 0.001$) between EG's facilities and process improvement.

Because these statistical methods enable researchers to assess the direction and degree of associations between variables on a continuous scale, they are ideal. Given the large sample size of 300 participants, Pearson's correlation coefficient is particularly useful in this case because it assesses linear associations and indicates that the data are normally distributed. The validity of the results is further enhanced by the significance levels (probability values), which indicate that the observed associations are unlikely to be due to chance.

Using correlation analysis, the study successfully identified key areas for improving customer satisfaction. These significant correlations indicate that process and infrastructure improvements are likely to have a positive impact on customer satisfaction, providing useful information for public sector strategies. This analytical technique improves the robustness of the results and enables stakeholders to base their decisions on reliable statistical evidence.

4.7. Regression

To evaluate the hypotheses related to the positive impact of e-government on customer satisfaction and enhanced productivity among Omani public sector employees, a regression model was developed. This model included three independent variables: the impact of their evaluation of e-government, improved productivity, and customer satisfaction. E-government, measured by changes in customer satisfaction and profitability, was reflected in the dependent variable. The main independent variables were customer satisfaction and the effectiveness of e-government services in increasing employee productivity. This study used regression analysis to predict how these independent variables interact with the dependent variable, confirming the importance of e-government in improving management practices and increasing overall public sector productivity.

Table 5. Coefficient Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.500a	.250	.245	.653	.250	49.577	2	297	.000

a. Predictors: (Constant), Improve Procedures , customers satisfaction
b. Dependent Variable: Facilities of EG

Multiple regression techniques, which are excellent for examining relationships between a single dependent variable and multiple independent variables, are used in the statistical study presented in the table. While an R-squared value of 0.250 indicates that the independent variables in the model may account for 25% of the variance in the dependent variable, a model R-squared value of 0.500 indicates a moderate correlation between the predicted and observed values. The number of predictors is taken into account through the adjusted R-squared of 0.245, which produces a more accurate measure of model fit. When assessing the model's predictive power, the standard error of estimate (0.653), which shows the average separation between the actual values and the regression line, is crucial. With a corresponding p-value of less than 0.001 and a significant F-value of change (49.577), the change statistics demonstrate that including the independent variables significantly improves the explanatory power of the model. This statistical significance indicates the validity and robustness of the model, strengthening the validity of the analysis' conclusions. In general, these strategies provide a precise framework for understanding subtle relationships in the data, ensuring that the results are reliable and relevant to the study context.

Table 6 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.319	2	21.159	49.577	.000b
	Residual	126.761	297	.427		
	Total	169.080	299			

a. Dependent Variable: Facilities of EG
b. Predictors: (Constant), Improve Procedures , Customers Satisfaction

Table 7 Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.226	.271		-.833	.406					
	Customers Satisfaction	.328	.082	.216	4.002	.000	.356	.226	.201	.863	1.158
	Improve Procedures	.607	.087	.378	6.993	.000	.458	.376	.351	.863	1.158

a. Dependent Variable: Facilities of EG

The table shows the results of a multiple regression analysis that examined how customer satisfaction and process improvement affect the dependent variable, EG facilities. Unstandardized coefficients indicate that a one-unit increase in customer satisfaction corresponds to a 0.328-unit increase in EG facilities, but process improvement has a stronger effect at 0.607 units. Standardized coefficients show that process improvement (beta = 0.378) has a larger effect than customer satisfaction (beta = 0.216). Both predictors are statistically significant ($p < 0.001$) and have t-values of 4.002 and 6.993, indicating reliable contributions to the

model. Correlation analysis shows modest positive correlations, with zero-degree correlations of 0.356 and 0.458, respectively. The validity of the results is supported by linear correlation statistics (tolerance = 0.863, VIF = 1.158), which demonstrate no multicollinearity issues. Considering all aspects, these statistical methods provide a solid foundation for understanding how these aspects affect facilities by accurately identifying the relationships between variables.

This type of statistical analysis uses multiple regression approaches to study the relationship between the independent variables, namely process improvement and customer satisfaction, and the dependent variable, EG facilities. While the unstandardized coefficients (B) show the change in the dependent variable per unit change in the independent variables, the standardized coefficients (Beta) provide a comparison of the relative importance of each predictor. T values and their associated p values (Sig.) highlight the importance of these predictors, with both independent variables showing significant statistical significance ($p < 0.001$).

The correlations section highlights the strength of the relationships with the dependent variable, which range from moderate to strong. Multicollinearity is not a concern, as the values fall within acceptable limits, according to multicollinearity statistics, such as tolerance and variance inflation factor (VIF). These strategies are appropriate because they improve the explanatory power of the model by assessing the impact of multiple variables on a single outcome. These statistical tools contribute to the validity of the results by verifying the significance and strength of the relationships, ensuring the reliability of the results and their ability to inform improvement decisions.

In conclusion, the results highlight the fundamental need for procedural changes to improve e-government services. However, they also indicate that customer satisfaction, while important, is not as important in this case. Omani public sector professionals can use this data to develop future plans to improve e-government services.

The regression study focuses on the factors affecting e-government facilities in the Omani public sector. It emphasizes the importance of process modifications in enhancing these facilities, while customer satisfaction yields less gains. The research paper emphasizes the importance of process improvements in improving e-government services and provides insight into future strategies for Omani public sector employees.

Figure 3, Regression Test

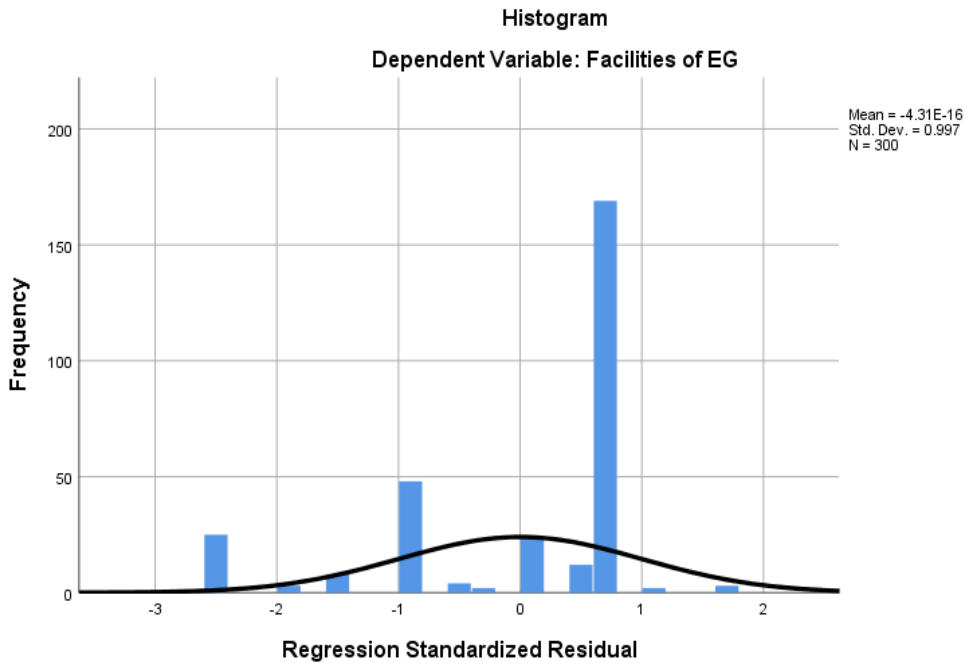


Figure 4, Normal P-P Plot of Regression

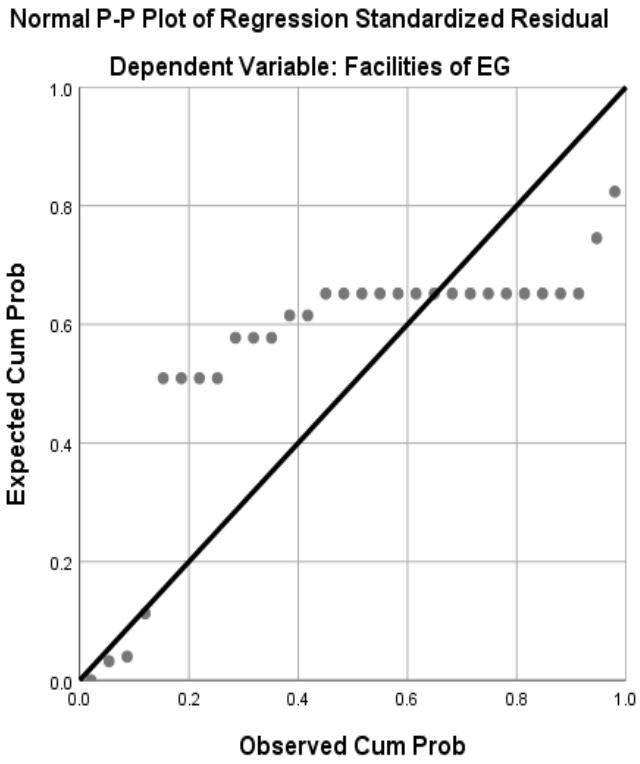
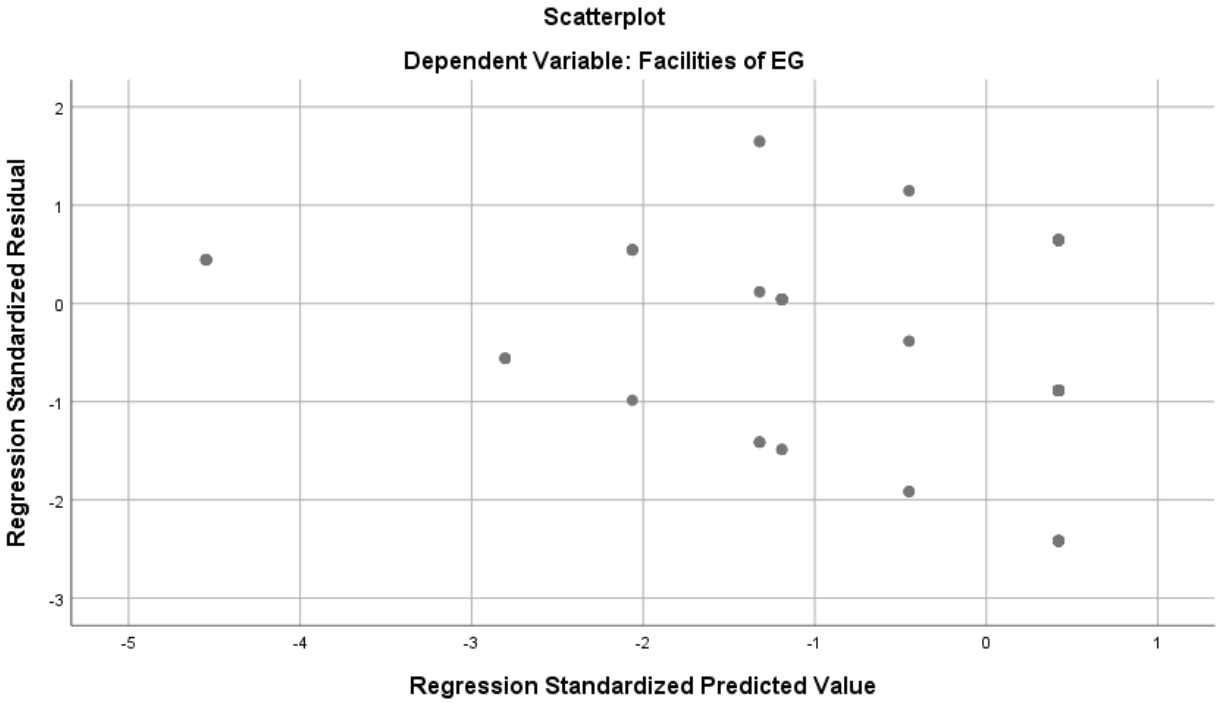


Figure 5, Scatterplot



5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. SUMMARY

This study summarizes the impact of e-government in accelerating public sector activities, increasing communication, and raising employee and customer satisfaction. With a high percentage of employees expressing satisfaction with its implementation, the results demonstrate that e-government benefits both employees and individuals. Although male employees outnumber female employees, statistics indicate that both genders use e-government platforms.

With the spread of e-government around the world, the data presented in the tables and graphs demonstrate its effectiveness and impact. The highest users of e-government are often experienced employees who process transactions quickly, demonstrating how technology can build relationships between the public and the public sector. According to the study, the quality, timeliness, and accessibility of services—available 24/7 for all socioeconomic sectors—are critical factors in e-government acceptance.

Employees' confidence in using e-government has increased, contributing to a positive opinion of the services provided. This study highlights the importance of effective and efficient e-platforms in delivering secure and accurate services, while engaging stakeholders to achieve optimal results. A significant proportion of experienced employees advocate for a rapid transition to e-government procedures, despite strong opposition to traditional paper-based systems due to concerns about e-government.

According to the report, e-government improves customer satisfaction and efficiency in the Sultanate of Oman and among public sector employees. Standardized questionnaires were used to collect data from stakeholders and public sector employees using descriptive and inferential statistics.

The analysis revealed significant shortcomings that hinder productivity in the e-government adoption process, particularly in planning and documentation. Public sector employees reported challenges in navigating the complexities of electronic documents, primarily due to a lack of training. This highlights the importance of implementing capacity building programs to equip employees with the necessary capabilities to deliver high-quality services.

Given that the majority of employees view e-government as a positive development, recognizing its contribution to enhancing trust and transparency, concerns were raised regarding the clarity and accessibility of digital processes, suggesting that improving e-government procedures would enhance employee and citizen trust and engagement. According to the study, there is a strong relationship between e-government adoption and increased productivity among public sector employees, which is influenced by implementation methods. Difficulties in implementing e-government have been found to hamper productivity and efficiency. Recent studies support the idea that successful e-government initiatives are essential to fostering public sector expansion. To address the complexities of e-government, employees must receive ongoing training and development. Finally, maximizing the potential of e-government to improve public sector performance in Oman requires enhancing digital implementation, accelerating electronic processes, and ensuring effective e-government management.

5.2. CONCLUSION

Highlighting significant implementation challenges, research on e-government among Omani public sector employees shows that it improves customer satisfaction and productivity. A comprehensive implementation plan is required to enhance accountability and transparency, as significant findings indicate that current e-government regulations are ambiguous in terms of timing, methodologies, and tasks. Furthermore, the complexity of e-government hinders service delivery due to diverse educational backgrounds, underscoring the importance of comprehensive training programs to equip employees with essential skills.

The rapid integration of digital tools is critical, as current traditional methods of interacting with the public are insufficient and can cause delays. Furthermore, poor management practices hinder growth, highlighting the importance of streamlining procedures to achieve efficiency. Public sector organizations must continue to develop and receive the necessary support to fully leverage e-government. Future research should focus on innovative ways to overcome current obstacles and assess how e-government initiatives impact public administration in the long term.

The study also highlights how digital initiatives can transform public sector operations, particularly in terms of productivity and customer satisfaction. However, this study highlights significant challenges that must be overcome to fully realize these benefits.

A key finding is that current e-government implementation strategies lack clarity regarding timing, methodology, and stakeholder commitments. Finally, uncertainty can limit project effectiveness by causing inefficiencies and misunderstandings. To address this, a comprehensive implementation strategy is needed that clearly defines roles and responsibilities, ensuring openness and accountability for all stakeholders.

The complexity of e-government technologies, which can hinder effective service delivery, is another major concern. Employees typically have different educational backgrounds, resulting in varying levels of knowledge and skills in using various digital tools. To address this, comprehensive training initiatives should be given top priority to equip employees with the necessary capabilities and knowledge to effectively manage and implement e-government solutions.

The study also demonstrates the ineffectiveness of traditional public engagement methods. These outdated procedures can limit the availability of new services and cause delays in government transactions. Consequently, to improve service delivery and reduce citizen waiting times, it is essential to accelerate the integration of digital technologies and streamline processes. Poor management practices are a major obstacle to effective e-government implementation. Implementing effective management solutions that improve workflow and operational efficiency is critical, as inefficient processes can hinder growth and development.

Public sector organizations require ongoing development and support to ensure the long-term sustainability of e-government initiatives. This includes fostering a culture of innovation and flexibility within organizations so they can effectively meet ever-evolving technological demands.

Finally, future research should focus on developing innovative solutions to overcome current barriers to e-government adoption. Assessing the long-term consequences of these projects on public administration will provide valuable information for improving public service delivery in Oman and promoting continuous improvement. By addressing these concerns, stakeholders can leverage the potential of e-government to increase citizen satisfaction and engagement.

5.3. RECOMMENDATIONS

In light of the study's findings on the role of e-government in streamlining administrative processes in the Sultanate of Oman, public sector employees and other entities should develop a comprehensive training framework to increase customer satisfaction and efficiency. To address the skills shortage, this strategy should begin by identifying stakeholders and accurately identifying training needs. Diverse training options should be provided, including flexible online training modules, knowledge transfer mentorship programs, e-government system certification programs, and practical workshops and seminars. Building on successful e-government projects in Estonia, public awareness campaigns should be launched to educate people about the benefits of e-government. Furthermore, sufficient budget allocations should be allocated to ensure access to critical e-government capabilities and strengthen support systems. Training should include cybersecurity and digital literacy to prepare all participants to use e-government systems safely. The effectiveness of these programs will be enhanced by implementing preventative measures for electronic transactions and incorporating global best practices from countries such as Finland and South Korea. Implementing this logical approach will help the Sultanate of Oman enhance citizen engagement and satisfaction with public services while streamlining administrative processes.

3. ACKNOWLEDGMENT

I thank God Almighty for enabling me to write this paper and facilitating all my efforts.

4. DISCLOSURE STATEMENT

I declare that I have no financial or other interest in the direct applications of this study.

REFERENCES

[1] Al Salmi, M., & Hasnan, N. (2016). E-government analysis: Sultanate of Oman case. *Open Journal of Social Sciences, 4*(3), 1-10.

[2] Alazab, M., Alhassan, I., & Alzahrani, A. (2021). M-Government: A new era of e-government. *Journal of Systems and Information Technology*, 23(1), 1-15.

[3] Al-Bulushi, Y. (2017). The effects of leadership roles on e-government performance in Oman (Doctoral dissertation, University of Phoenix). *ProQuest Dissertations & Theses*, 3 (20).

[4] Al-Busaidy, M., & Weerakkody, V. (2010). The e-government implementation directions in Oman: A preliminary investigation. In *Proceedings of the European and Mediterranean Conference on Information Systems 2010 (EMCIS2010)* (pp. 1-12). Abu Dhabi, UAE.

[5] Bertot, C., Jaeger, T., & Grimes, M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for society. *Government Information Quarterly*, 27(3), 264-271.

[6] Bertot, C., Jaeger, T., & Grimes, M. (2016). The impact of policies and technologies on citizen engagement: A study of e-government initiatives. *Government Information Quarterly*, 33(1), 94-102.

[7] Carter, L., & Belanger, F. (2005). The Influence of Perceived Characteristics of Innovating on e-Government Adoption. *Electronic Journal of e-Government*, 3(4), 221-2300.

[8] Çetin, S., De Wolf, C., & Bocken, N. (2021). Circular digital built environment: An emerging framework. Sustainability, *MDPI Open Access Journals* 13(11).

[9] Gil-Garcia, R., & Pardo, A. (2005). E-government success: A case study comparison of the USA and Spain. *Government Information Quarterly*, 22(3), 109-124.

[10] Hassenzahl, M. (2008). User experience (UX): Towards an experiential perspective on product quality. In Monk, B. Carpendale, & P. M. D. (Eds.), The experience of interaction: The role of user experience in the design process (pp. 11-24). Springer.

[11] Heeks, R. (2006). Implementing and managing eGovernment: An international text. *Sage Publications*.

[12] Jaeger, T., & Thompson, M. (2003). E-government, a special issue of government information quarterly. Government Information Quarterly, 20(4), 325-328.

[13] Janssen, M., Charalabidis, Y., & Zuiderwijk, A. (2017). Benefits, barriers, and success factors of open data and open government: A systematic literature review. *Government Information Quarterly*, 34(3), 437-448.

[14] Janssen, M., van der Voort, H., & de Lange, R. (2020). Data-driven public administration: A systematic literature review. *Government Information Quarterly*, 37(4), 101499.

[15] Jusman, S., Asang, B., and Allorante, A., (2018) Electronic governance model in public service: A study case of investment and integrated one-stop service office in Makassar City. European Journal of Research and Reflection in Management Sciences, ISSN: 2056-5992, 6(4), P 67.

[16] Kala, D., Chaubey, S., Meet, K., & Al-Adwan, S. (2024). Impact of user satisfaction with e-government services on continuance use intention and citizen trust using TAM-ISSM framework. Interdisciplinary Journal of Information, Knowledge, and Management, 19, Article 1.

[17] Kankanhalli, A., Tan, Y., & Kwok-Kee, W. (2021). Cybersecurity in e-government: A review of the literature. *Government Information Quarterly*, 38(3), 101580.

[18] Kettunen, P., & Kallio, J. (2018). Digitalization of the public sector: A systematic literature review. *International Journal of Public Administration*, 41(9), 747-759.

[19] Latupeirissa, P., Dewi,Y., Prayana, R., Srikandi, B., Ramadiansyah, A., & Pramana, Y. (2024). Transforming public service delivery: A comprehensive review of digitization initiatives. Sustainability, *MDPI Open Access Journals*, 16(7).

[20] Liang, X., Zhao, J., Chen, Y., Bandara, E., & Shetty, S. (2023). Architectural design of a blockchain-enabled, federated learning platform for algorithmic fairness in predictive health care: Design science study. *Journal of Medical Internet Research*, *25*, e46547.

[21] Luo, C., Hasan, M., & Zamri, M. (2024). Exploring satisfaction and trust as key drivers of e-government continuance intention: Evidence from China for sustainable digital governance. Sustainability, *MDPI Open Access Journals*, 16(24).

[22] Mergel, I. (2016). Open innovation in the public sector: Key findings. *Public Management Review*, 18(5), 687-698.

[23] Moon, J., & Norris, F. (2005). Does e-government promote accountability? A comparative analysis of e-government and public accountability. Public Administration Review, 65(3), 3009-322.

[24] Pham, L., Limbu, B., Le, T., & Nguyen, L. (2023). E-government service quality, perceived value, satisfaction, and loyalty: Evidence from a newly emerging country. Journal of Public Policy. Published online October 6, 2023.

[25] Reddick, G. (2005). Citizen interaction with e-government: A survey of the digital divide. *Government Information Quarterly*, 22(1), 1-24.

[26] Ryan, M., & Deci, L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.

[27] Social Sciences, 4(3), 1-8.

[28] Twizeyimana. J., Andersson, A., The Public Value of E-Government – A Literature Review, Government Information Quarterly, 2019, V.36, I.,2, P 167- 178.

[29] Venkatesh, V., Thong, L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. MIS Quarterly, 36(1), 157-178.

[30] West, M. (2020). Digital government: Technology and public sector performance. *Brookings Institution Press*.

[31] Zhang, P., Wang, H., & Ma, X. (2019). Block chain technology in e-government: A systematic review. Government Information Quarterly, 36(3).

