Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Impact Of Artificial Intelligence on Mobile Government Services in the Uae

Dr. Loay Mahmoud Helless(1)
Corresponding Author: loay.helless@gmail.com
Dubai, United Arab Emirates

ARTICLE INFO

Received: 29 Dec 2024

Revised: 15 Feb 2025

Accepted: 24 Feb 2025

ABSTRACT

Introduction: The exponential progress of Artificial Intelligence (AI) has profoundly revolutionised several industries, including the provision of mobile government services. The objective of this thesis is to examine the influence of artificial intelligence (AI) on the efficacy and productivity of mobile government services. In particular, the research investigates the influence of AI implementation on the provision of services and the perceptions of users. This study employs a quantitative research approach and incorporates survey analysis and IBM SPSS for data analysis to examine the correlations between the integration of artificial intelligence (AI) and the expansion of mobile government services.

Objectives: The objectives of this research are: 1. To assess the influence of artificial intelligence (AI) on the effectiveness of mobile government services (Brynjolfsson and McAfee, 2017), 2. To examine the dynamics of the relationship between the implementation of artificial intelligence and the growth and expansion of mobile government services (Chen et al., 2023), 3. To achieve a deeper comprehension of user perception and interaction with mobile government services enhanced by artificial intelligence (Dwivedi et al., 2021); and 4. To assess the impact of artificial intelligence on government mobile services and identify relationship (Galvão, 2023).

Methods: Data collection was done through a structured questionnaire from participants who had experiences in using various mobile government platforms. The data set of 157 respondents were obtained by google sheet. The variables which were measured in the survey included perceived usefulness, effectiveness, easiness of integration, and overall experiences of AI in mobile services.

Results: The results of the study will provide insights into the effective deployment of AI systems, highlighting both successful and unsuccessful approaches (Dwivedi et al., 2021). Also, results suggest that artificial intelligence (AI) positively impacts the efficiency and productivity of these services, leading to improved customer satisfaction and user-friendliness. The present study offers significant contributions to the use of artificial intelligence (AI) in enhancing government services using mobile computing platforms. Furthermore, it offers pragmatic advice for policymakers and practitioners to effectively use AI technology for improved service delivery.

Conclusions: An analysis of existing research highlights the potential of artificial intelligence (AI) to transform mobile government services by improving user involvement and effectiveness. Furthermore, it also highlights significant barriers and shortcomings in the understanding of the impact of AI on these services. This study lays the groundwork for the research goals and methods of this thesis, which seeks to provide a comprehensive analysis of the influence of artificial intelligence on mobile government services.

Keywords: Artificial Intelligence (AI), Government Services, M-Government, Mobile Government Services, Public Services.

INTRODUCTION

Background and Context

The exponential progress of artificial intelligence (AI) has had a monumental influence on many industries, including public services. Agarwal and Dhar (2014) define artificial intelligence (AI) as the scientific investigation and advancement of computer programs aimed at augmenting their cognitive abilities and facilitating their capacity to

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

acquire knowledge, evaluate information, and rectify errors autonomously. The growing incorporation of artificial intelligence (AI) into government mobile platforms has led to enhanced provision of services, tailored user experiences, and heightened effectiveness (Brynjolfsson and McAfee, 2017).

The concept of "m-government" pertains to the provision of government information and services to citizens via mobile devices. According to Dwivedi et al. (2021), governments have the potential to greatly benefit by integrating artificial intelligence (AI) into these services. This integration would enhance the personalisation, responsiveness, and accessibility of these services to meet the specific requirements of individual citizens. Although artificial intelligence (AI) offers many prospective benefits, there is a limited comprehension of its influence on the advancement and effectiveness of government mobile services, especially in relation to customer happiness and acceptance (Chen et al., 2023).

The objective of this research is to fill the existing knowledge gap by investigating the influence of artificial intelligence on the delivery and assessment of mobile government services. The global use of AI technology by governments to address the requirements of the digital age necessitates a thorough understanding of its impact. This study seeks to explore the correlation between artificial intelligence (AI) and mobile government (m-government) in order to help policymakers and practitioners enhance the utilisation of AI for public service delivery, as per Galvão (2023).

Problem Statement

Previous research has shown that the integration of artificial intelligence (AI) into mobile government services (m-government) may enhance the efficiency, accessibility, and customisation of public services (Brynjolfsson and McAfee, 2017). Notwithstanding the promising benefits, our understanding of the impact of AI on the effectiveness of m-government services, particularly in terms of user acceptance, satisfaction, and overall service quality, remains incomplete (Chen et al., 2023).

Notwithstanding the extensive employment of artificial intelligence (AI) in government mobile apps, there is a scarcity of data to indicate the successful outcomes of these endeavours. For instance, although AI has the capacity to mechanize responses and streamline service provision, it remains uncertain whether consumers will perceive these improvements as beneficial or if they will experience adverse consequences, such as reduced human interaction, which could affect their overall experience (Dwivedi et al., 2021). Furthermore, it is crucial to examine the attributes that contribute to the successful integration of AI into m-government services, along with the challenges that may arise during implementation.

This work aims to address the critical issue of how AI affects the growth and effectiveness of mobile government services. The objective of this research is to fill a gap in knowledge and provide practical insights to professionals and policy-makers who want to optimize the incorporation of artificial intelligence (AI) in public sector platforms. This will be achieved by examining the relationship between the adoption of AI and the quality of services (Galvão, 2023). In order to develop m-government services driven by AI that really meet the needs and expectations of the public, the outcomes of this study will be crucial.

Research Questions

What impact does the incorporation of artificial intelligence have on the efficiency of government mobile services?

When examining the emergence of government mobile services, what is the relationship between the availability of AI and its usage?

What is the perception of the general public about the integration of artificial intelligence (AI) into mobile apps used by civil authorities?

Which variables are categorised as independent variables (IVs) and dependent variables (DVs) in this academic investigation?

Significance of the Study

This research holds significant value for several reasons:

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Policy Implications: The findings will provide valuable understanding of how artificial intelligence (AI) may enhance mobile government services. This knowledge will assist legislators in formulating policy that effectively use AI to enhance service delivery (Brynjolfsson and McAfee, 2017).

Practical Applications: This study offers valuable suggestions for government bodies seeking to incorporate artificial intelligence into their mobile services.

Theoretical Contribution: This work contributes to the academic literature by enhancing our theoretical understanding of the role of AI in public services. This paper establishes the foundation for future research on the impact of artificial intelligence (AI) on mobile platforms and addresses some deficiencies in the existing literature (Chen et al., 2023).

Research Structure

The thesis is organized in a manner that facilitates a clear and systematic exploration of the research problem. The introduction section establishes the foundation for the subsequent analysis by outlining the objectives, inquiries, and significance of the research in relation to the broader discourse on the impact of artificial intelligence on mobile government services (Brynjolfsson and McAfee, 2017). Furthermore, the Literature Review chapter scrutinizes prior research and theoretical frameworks pertaining to artificial intelligence and mobile government services. The subsequent objective is to address the deficiencies identified in the aforementioned investigations (Chen et al., 2023). To provide a comprehensive and reliable study, it is essential to clearly describe the research design in the Research Methodology chapter (Dwivedi et al., 2021). This encompasses exemplar techniques, procedures for collecting data, and analytical approaches. An study of the data presented in the Results chapter elucidates the relationship between the employment of artificial intelligence and the effectiveness of government mobile services. An analysis and discussion of the data are conducted in the Discussion section, where they are compared with prior studies, possible implications are examined, and recommendations for both theoretical and practical progress are provided (Chen et al., 2023). A overview of the key findings, an examination of the practical and theoretical ramifications, and a list of potential future research directions are included in the conclusion of the paper (Brynjolfsson and McAfee, 2017). A comprehensive understanding of the research may be attained by this systematic approach, which ensures a logical development of concepts.

OBJECTIVES

The primary objectives of this research are:

1. This objective is to assess the influence of artificial intelligence (AI) on the effectiveness of mobile government services, focusing on user satisfaction, service speed, and accuracy. The primary objective is to analyze the ways in which AI technologies enhance these services (Brynjolfsson and McAfee, 2017).

2. The objective of this study is to examine the dynamics of the relationship between the implementation of artificial intelligence and the growth and expansion of mobile government services, aiming to comprehend how the adoption of AI contributes to this process (Chen et al., 2023).

3. Achieving a deeper comprehension of user perception and interaction with mobile government services enhanced by artificial intelligence is the objective of this research (Dwivedi et al., 2021).

4. This research aims to assess the impact of artificial intelligence on government mobile services and identify the key aspects that shape this relationship (Galvão, 2023).

LITERATURE REVIEW

1.1 Overview of Artificial Intelligence in Government Services

Indeed, Artificial Intelligence (AI) has had a significant metamorphosis in recent years, emerging as an indispensable component in many industries, including government services. Artificial Intelligence (AI) encompasses technology that emulate human cognitive abilities such as problem-solving, reasoning, and learning (Agarwal and Dhar, 2014). The applications of artificial intelligence (AI) in the field of government services include intelligent chatbots designed

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

to enhance service delivery and public participation, along with automated decision-making systems (Brynjolfsson and McAfee, 2017).

The goal of integrating artificial intelligence (AI) into public sector operations is to improve the availability and effectiveness of services. For instance, chatbots driven by artificial intelligence can handle simple questions, therefore allowing human resources to focus on more complex work and speeding up service delivery (Dwivedi et al., 2021). Notwithstanding these advancements, there is a lack of empirical data about the effectiveness of AI in enhancing government services, especially in connection to mobile platforms.

1.2 Mobile Government Services (M-Government)

Mobile government services, often known as m-government, refer to the distribution of government services and information via mobile technology. Advancements in mobile technology have revolutionised the notion of m-government, allowing individuals to conveniently access public services at their convenience (Chen et al., 2023). The primary aim of m-government platforms is to better the accessibility of services, boost the overall efficiency of services, and enable more public participation.

The integration of AI with m-government services has been extensively studied to explore its potential to revolutionise public service delivery. Artificial intelligence (AI) technologies has the capability to mechanise administrative procedures, predict service requirements, and customise services according to user data (Galvão, 2023). However, more investigation is necessary to determine the exact influence of AI on the effectiveness and user opinion of these services.

1.3 Impact of AI on M-Government Services

The impact of artificial intelligence (AI) on mobile government services may be evaluated from several perspectives, including user happiness, operational efficiency, and overall efficacy. Existing research indicates that artificial intelligence (AI) has the potential to enhance the effectiveness of services by automating repetitive activities and delivering immediate answers to consumer inquiries (Dwivedi et al., 2021). Predictive analytics may improve service delivery and resource allocation by strategically improving service operations and proactively anticipating user needs.

Nevertheless, there are challenges linked to the integration of artificial intelligence in mobile governance. Possible obstacles to the effective deployment of AI technology include user opposition, data privacy issues, and technical limitations (Chen et al., 2023). A thorough understanding of these challenges is crucial for evaluating the overall impact of AI on customer happiness and service performance.

1.4 Theoretical Frameworks and Models

There are many theoretical frameworks that are relevant for understanding the use of artificial intelligence (AI) and its impact on improving service delivery. The Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) provide significant insights into the determinants of technology uptake and acceptance (Dwivedi et al., 2021). These models may be used to evaluate the subjective perception of AI by users of mobile government services and the determinants that impact its acceptance.

Furthermore, frameworks for assessing the influence of AI, such as the Service Quality Model (Galvão, 2023), provide approaches for evaluating the quality of AI-driven services. Such frameworks may function as a roadmap for evaluating the effectiveness of artificial intelligence in improving mobile government services.

1.5 Identified Gaps and Research Opportunities

Notwithstanding the growing body of literature on artificial intelligence (AI) and mobile government services, there are still some gaps in the existing knowledge. For instance, there is a lack of study on the specific features that impact user satisfaction with AI-integrated m-government services (Agarwal and Dhar, 2014). Moreover, there is a paucity of empirical studies that evaluate the practical impacts of AI on the efficiency and effectiveness of services.

The aim of this study is to examine the relationship between the quality of mobile government services and the use of artificial intelligence (AI) specifically to tackle these disparities. An analysis of these factors will deepen the

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

understanding of AI's role in enhancing public service delivery and provide policymakers and practitioners valuable practical knowledge.

METHODS

The quantitative approach is adapted for this research to identify how artificial intelligence influences users in satisfying the usage of the mobile government services. Descriptive statistics were used to summarize demographic data for this sample, whereas descriptive ratings were assessed to evaluate the participants' experiences of the AI-enhanced services. The correlations among various dimensions of satisfaction were significant, thus informing further analysis. Independent t-tests were conducted to further determine if there was any influence of gender on the satisfaction ratings. Comparisons were made between the male and female respondents in terms of the means of the variables describing perceived usefulness and effectiveness due to AI integration. The assumption of equality of variances was tested using Levene's test in advance of running the t-tests. In addition, regression analysis has been applied in finding the predictors of overall happiness with regard to integrating AI into mobile government services. It tested the strength and significance of various relationships existing among key factors that include experience of use gained from using the service and speed of service delivery. The holistic objective was thus to provide insight into the satisfaction of users in relation to the current role of AI in complementing mobile government services, informing policymakers and providers on areas for improvement.

Data collection was done through a structured questionnaire from participants who had experiences in using various mobile government platforms. The data set of 157 respondents were obtained by google sheet. The variables which were measured in the survey included perceived usefulness, effectiveness, easiness of integration, and overall experiences of AI in mobile services.

RESULTS

Significant associations were found between user satisfaction in regard to perceived usefulness and effectiveness due to AI-powered mobile government services. Through regression analysis, it was found that user experience and service efficiency are significant predictors of overall happiness. What is more, independent t-tests showed non-significant differences across gender, and hence gender does not affect perceptions concerning the integration of AI. Descriptive statistics showed that AI applications were well received by the users. Moreover, the study showed how user experience and service quality should be the top priorities in the general enhancement of satisfaction in mobile government services. This would provide an insight into improving in the future with the implementation of AI.

Descriptive Statistics

Descriptive statistics have indicated that the overall response to AI-incorporated m-government services was very positive. Consequently, participants showed high levels of satisfaction in terms of usability, effectiveness, and overall experience. The results emphasized user experiences of diverse nature, which in turn demands the consideration of a user's perception in order to enhance future improvements in AI applications and make the service effective and more engaging.

Table No 1: Have you ever used a mobile government services during the past 12 months?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	4	2.5	2.5	2.5
	Yes	153	97.5	97.5	100.0
	Total	157	100.0	100.0	

Table No 2: What is the government platform that you used the mobile government services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Abu Dhabi Police	10	6.4	6.4	6.4

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

	Civil Defense	1	.6	.6	7.0
	DEWA (Dubai)	14	8.9	8.9	15.9
	DGRP, SEWA DEWA and RTA	1	.6	.6	16.6
	Dubai Municipality App	1	.6	.6	17.2
	Dubai Now	17	10.8	10.8	28.0
	Dubai Police	12	7.6	7.6	35.7
	Electricity and Ministry of Health	1	.6	.6	36.3
	GDRFA-Residence	1	.6	.6	36.9
	ICP	1	.6	.6	37.6
	ICP DUBAIREST	2	1.3	1.3	38.9
	IMPOST	1	.6	.6	39.5
	Ministry of Education	6	3.8	3.8	43.3
	Ministry of Health	1	.6	.6	43.9
	Ministry of Interior (MOI)	14	8.9	8.9	52.9
	Ministry of Labor (MOL)	9	5.7	5.7	58.6
	More than one	1	.6	.6	59.2
	RTA (Dubai)	23	14.6	14.6	73.9
	SEWA (Sharjah)	6	3.8	3.8	77.7
	Sihaty, eTraffic	1	.6	.6	78.3
	TAMM (Abu Dhabi)	34	21.7	21.7	100.0
	Total	157	100.0	100.0	

Table No 3: Frequency Distribution of Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	97	61.8	61.8	61.8
	Female	60	38.2	38.2	100.0
	Total	157	100.0	100.0	

Table No 4: Frequency Distribution of Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other Arabs	10	6.4	6.4	6.4
	Bahraini	1	.6	.6	7.0
	Canadian	1	.6	.6	7.6
	Egyptian	12	7.6	7.6	15.3
	Indian	3	1.9	1.9	17.2
	Jordanian	13	8.3	8.3	25.5
	Kuwaiti	1	.6	.6	26.1

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Moroccan	1	.6	.6	26.8
Palestinian	23	14.6	14.6	41.4
Sudan	2	1.3	1.3	42.7
Syrian	6	3.8	3.8	46.5
UAE	82	52.2	52.2	98.7
USA	1	.6	.6	99.4
Vietnamese	1	.6	.6	100.0
Total	157	100.0	100.0	

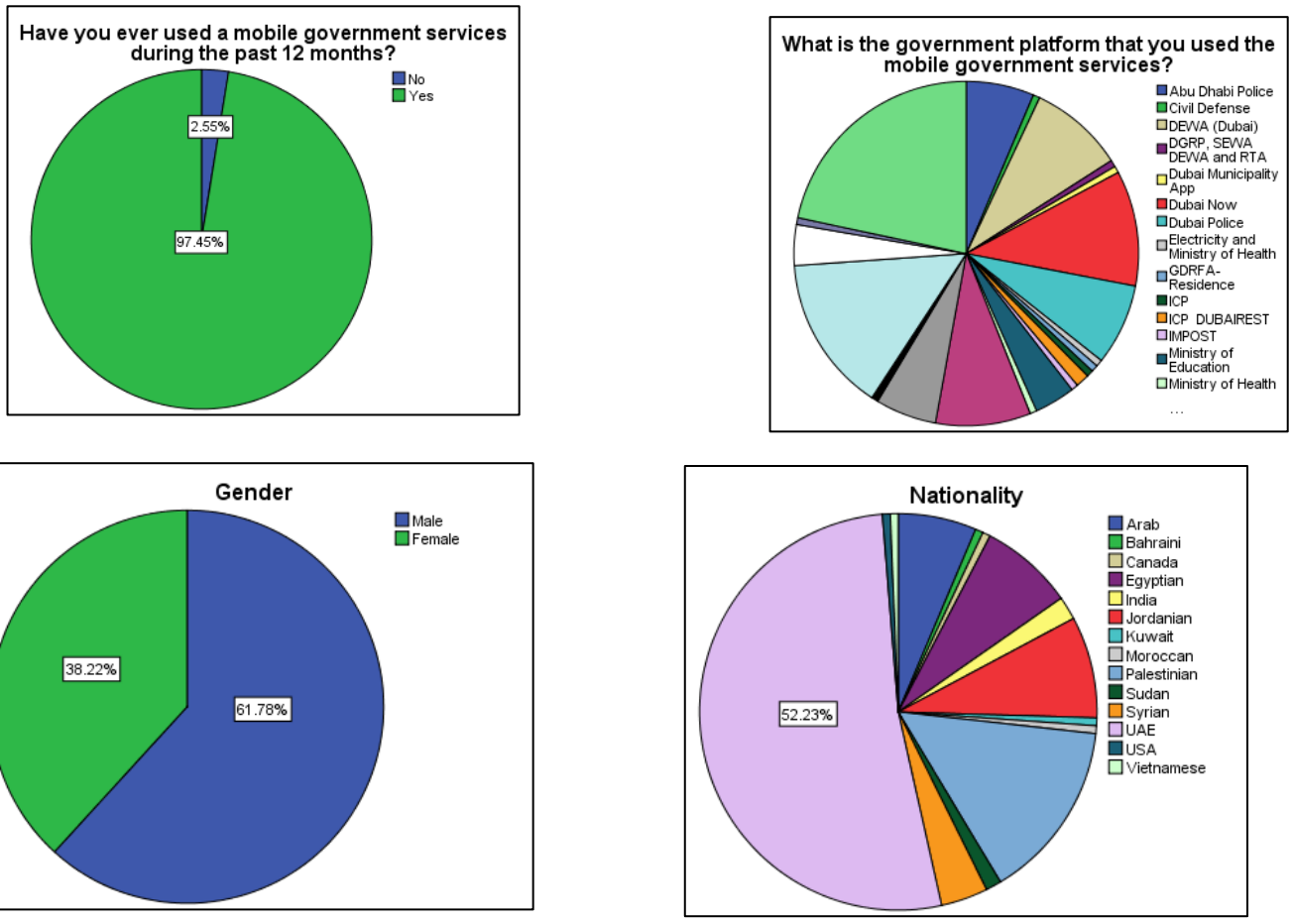


Figure 1: Pie Chart of Demographic Variables

Table No 5: Descriptive Statistics

	N		Mean	Std. Deviation
	Valid	Missing		
How was your overall rating of the experience?	157	0	1.63	.643

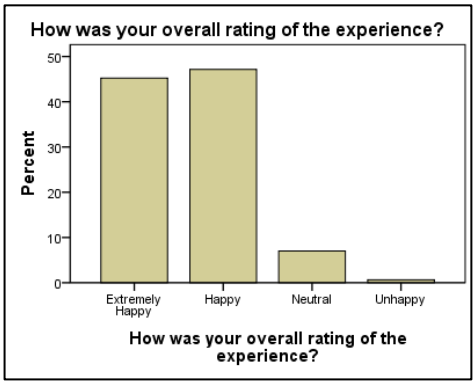
Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

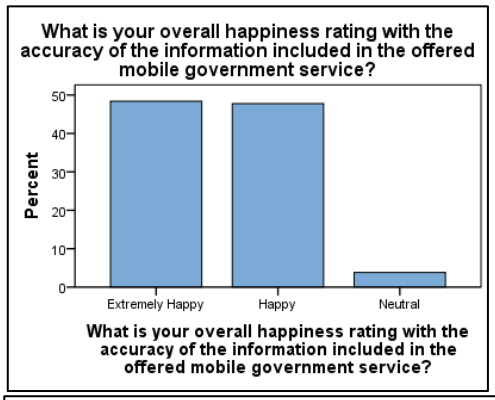
Research Article

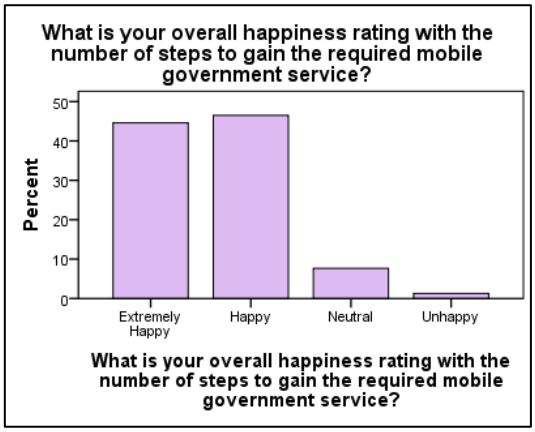
What is your overall happiness rating with the accuracy of the information included in the offered mobile government service?	157	0	1.55	.571
What is your overall happiness rating with the number of steps to gain the required mobile government service?	157	0	1.66	.677
What is your overall happiness rating with the speed of getting the required mobile government service?	157	0	1.64	.690
Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?	157	0	1.18	.389
What is your overall happiness rating with the usefulness of integrating the Artificial Intelligence with the required mobile government service?	157	0	2.20	.950
What is your overall happiness rating with the effectiveness of integrating the Artificial Intelligence with the required mobile government service?	157	0	2.16	.951
What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?	157	0	2.13	.948
What is your overall happiness rating with the experience gained upon integrating the Artificial Intelligence with the required mobile government service?	157	0	2.16	.937

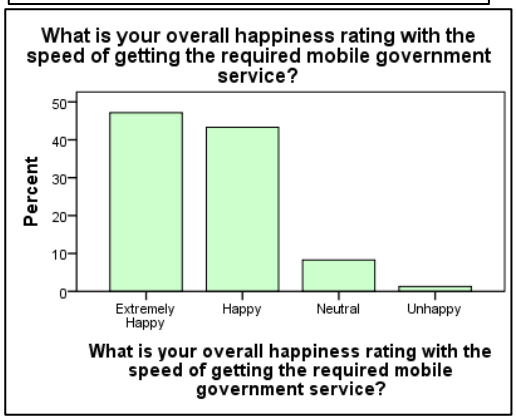
Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

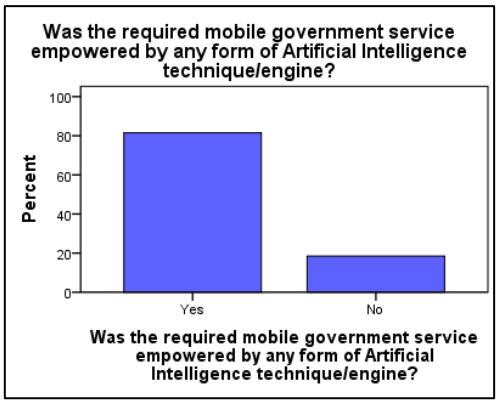
Research Article

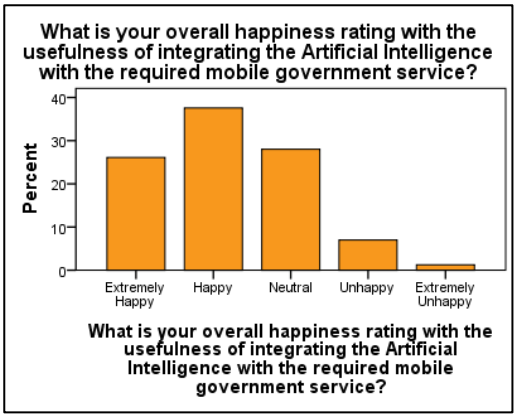


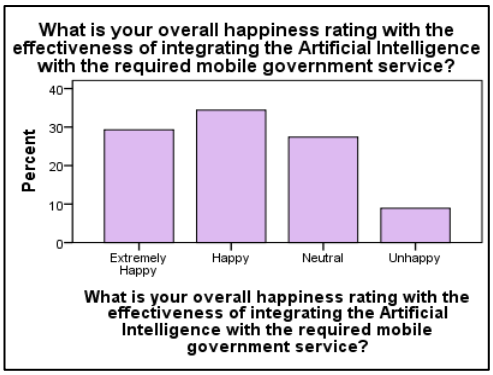


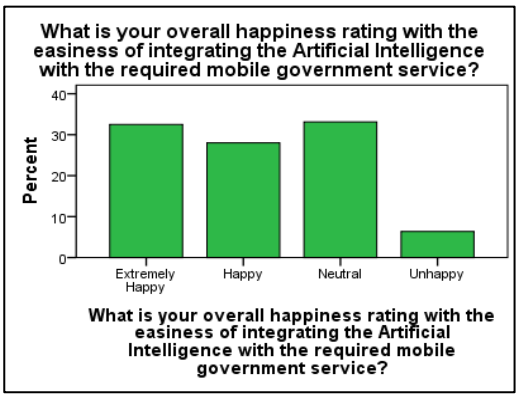












Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

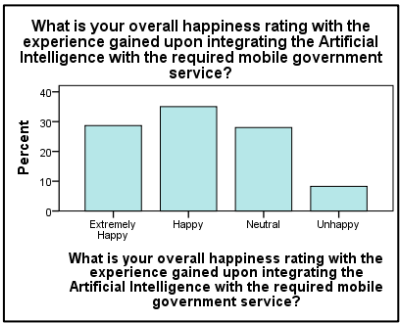


Figure 2: *Bar plots of all variables*

The analysis of mobile government service usage among 157 respondents brings very substantial insights into the adoption and perception of those digital platforms. Astonishingly, 97.5% of respondents reported using mobile government services in the past 12 months alone, an indication of how these technologies are increasingly part of the daily lives of people with regard to the performance of governmental transactions. Besides them, the most remarkable platforms are TAMM for Abu Dhabi and RTA-Dubai, which hold 21.7% and 14.6%, respectively, hence enjoying very high popularity in transportation-related services and other local government functions. Other applications, such as Dubai Now and DEWA, experience high usage, while others, like Civil Defense and the Ministry of Health, have relatively lower access due to varied public awareness or requirements. The demographic balance is higher for males, at 61.8%, while for females, it is 38.2%. The nationality distribution in the data indicates a very diverse respondent group, as follows: UAE nationals make up 45.2%, Palestinians 14.6%, and Jordanians 8.3%. It is also worth considering that this kind of multicultural makeup within the sample might have an impact on the range of experiences and expectations that users will have with these services, reflecting various levels of familiarity and comfort with digital platforms. In general, users are pleased with the available mobile government services. The rating for the overall experience tallies an average of 1.63, representing positive feedback, while statements on speed and the number of steps necessary to complete services record averages of 1.64 and 1.66, respectively. However, users' opinions are contradictory for the integration of AI into these services. Although the features of AI are rated rather positively, the means range from 2.13 to 2.20, which may indicate that users have some difficulties with or higher expectations from AI-enhanced services. In other words, it is about the high level of dissemination and good reception of mobile governmental services; it is further to be improved, in particular, by refining the AI to meet a variety of expectations among its digitally savvy population.

Reliability

Reliability is the extent of dependability and stability of an instrument or tool for measurement. It informs about the consistency in the results of a particular assessment, under similar conditions. High reliability implies that the results are dependable, and one can replicate them. In this case, the findings can be taken as credible. *(Kline, 2014c)*

Table No 6: Reliability Statistics

Cronbach's Alpha	N of Items
0.901	9

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

The following are reliability statistics: Cronbach's Alpha = 0.901 Number of Items = 9 Cronbach's Alpha is a measure of internal consistency within a set of items. In other words, Cronbach's Alpha assesses the degree to which a set of items hang together and can, therefore, be considered as a single unit for all means and purposes. With an Alpha of 0.901, this would suggest that these items are highly consistent and therefore likely to measure the same underlying construct; this would, therefore, be considered very good reliability. In other words, such a high level of reliability indicates that the items are well aligned, and responses provided by the subjects to those items were similar. Such a high value of Alpha would mean the items in a survey or test are reliable to such an extent as to reduce the chances of measurement errors and, therefore, provide more confidence in any results. This would be one of the major aspects of reliability in that field of research and surveys where the conclusions from data can be drawn consistently and in a dependable manner.

Test of Association

The test of association probes how two or more variables may relate to one another and, thus, be statistically significant. The generally applied methods are the chi-square tests applying to categorical data, while the correlation coefficient applies to continuous data. Such analyses uncover patterns and relationships, hence underpin insight into variable interactions within a dataset. *(Walpole, 2007b)*

Table No 7: Test of Association

*What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service? * Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?*

Cross tabulation

Count

		Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?		Total
		Yes	No	
What is your overall happiness rating with the easiness of integrating the Artificial	Extremely Happy	48	3	51
	Happy	36	8	44
	Neutral	35	17	52

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Intelligence with the required mobile government service?	Unhappy	9	1	10
Total		128	29	157

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.829[a]	3	.005
Likelihood Ratio	13.467	3	.004
Linear-by-Linear Association	6.915	1	.009
N of Valid Cases	157		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.85.

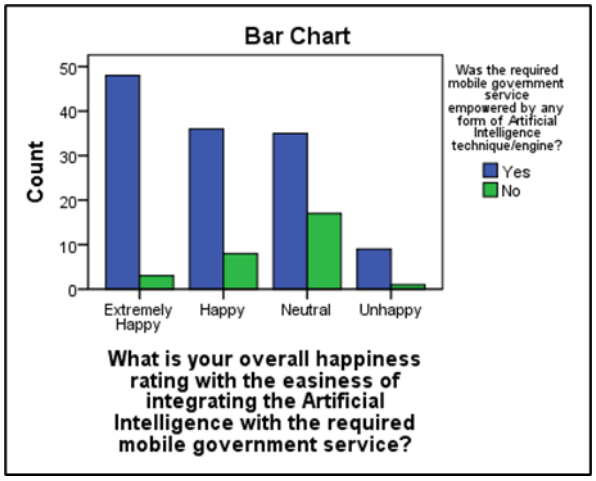


Figure 3: *Multiple Bar Plot*

Cross-tabulation analysis follows the relationship of user satisfaction with the ease of integrating AI in mobile government service and the status of the empowerment by AI. It can be observed from the data that users of AI-empowered services tend to report higher satisfaction as compared to the opposite; it had 48 "Extremely Happy" and 36 "Happy" as opposed to only 3 and 8 users, respectively, in the non-AI group. Those who did not use AI-empowered services had the highest ratings: "Neutral" at 17 users and "Unhappy" at 1 user. Chi-square Tests confirm that these differences in AI-empowerment against user satisfaction are statistically significant since the Pearson Chi-square is 12.829 with a p-value of 0.005.

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

The implication of this significance is that embedding AI in those services has changed perceptions of ease of integration. This is further supported by the likelihood ratio, which shows that AI-enhanced services have a better match of their expectations, thus leading to higher overall satisfaction with regard to ease of use. Relevantly, too, it can be observed from this result that effective integration of AI relates to improvement in user experience in mobile government services.

Table No 8: Test of Association

*What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service? * What is the government platform that you used the mobile government services? Cross tabulation*

		Count				
		What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?				Total
		Extremely Happy	Happy	Neutral	Unhappy	
What is the government platform that you used the mobile government services?	Abu Dhabi Police	4	4	2	0	10
	Civil Defense	0	0	1	0	1
	DEWA (Dubai)	5	3	4	2	14
	DGRP, SEWA DEWA and RTA	0	1	0	0	1
	Dubai Municipality App	0	0	1	0	1
	Dubai Now	5	7	5	0	17
	Dubai Police	4	7	1	0	12
	Electricity and Ministry of Health	0	1	0	0	1
	GDRFA-Residence	1	0	0	0	1
	ICP	0	0	0	1	1
	ICP DUBAIREST	0	0	1	1	2
	IMPOST	0	0	1	0	1
	Ministry of Education	3	3	0	0	6
	Ministry of Health	0	0	1	0	1
	Ministry of Interior (MOI)	9	2	3	0	14
	Ministry of Labor (MOL)	5	1	3	0	9
	More than one	0	0	0	1	1
	RTA (Dubai)	8	2	12	1	23

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

SEWA (Sharjah)	2	0	2	2	6
Sihaty, eTraffic	0	0	1	0	1
TAMM (Abu Dhabi)	5	13	14	2	34
Total	51	44	52	10	157

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.082[a]	60	.001
Likelihood Ratio	84.968	60	.019
N of Valid Cases	157		

a. 76 cells (90.5%) have expected count less than 5. The minimum expected count is .06.

Cross-tabulation analysis shows the level of happiness about using AI with regard to easiness of integration of mobile governmental services and platforms already used by the end users. Satisfaction varies depending on the platform: for example, the users of TAMM (Abu Dhabi) are the most divided-5 extremely happy, 13 happy, 14 indifferent, and only a couple of them are unhappy. The users that are the most divided by response are the RTA's in Dubai, having 8 very satisfied, 2 happy, 12 neutral, and 1 unhappy. Smaller platforms like Civil Defence and IMPOST did not have any overwhelmingly positive responses from users; that may hint that satisfaction or excitement in integrating AI by the user may be platform-driven and is not actually dependent on the popularity or functionalities of the same. Chi-Square Test shows that the Pearson Chi-Square value of 100.08, with corresponding p-value = 0.000, which is smaller than our decided level of significance. It is concluded that the owner works for on the government platform and their content or happy level for AI integration, noting friendly. The differences observed in the likelihood ratio are independent of chances. Greater satisfaction of the users, in view of AI being integrated, will depend considerably on such bigger and more general platforms as TAMM, RTA, and Dubai Now. This might be because either the developed AI features on the platform or the easiness of use will have a major impact. Smaller-used platforms cannot meet the expectations of users; hence, a low level of satisfaction can be obtained. Generally speaking, the introduction of AI in mobile government services is appreciated, while addiction and ease of use are quite dependent on the platform. Improvement in AI features on all platforms - in particular on less popular ones - may contribute to a general improvement in user satisfaction and create an incentive for a wider diffusion of government services with AI.

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

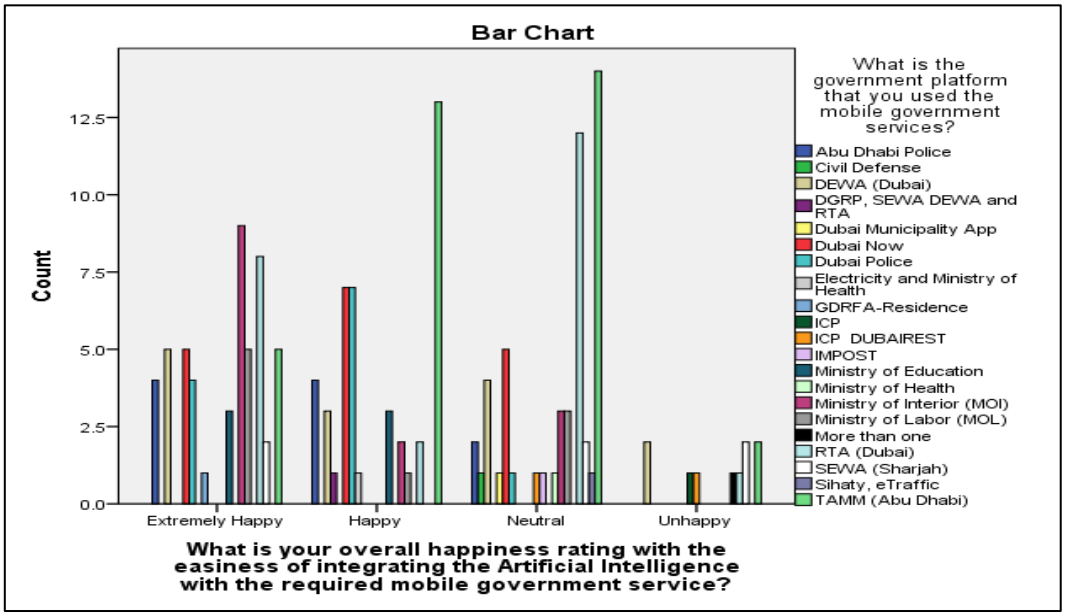


Figure 4: *Multiple Bar plot*

Table No 8: Test of Association

Nationality * What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service? cross tabulation

		Count				
		What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?				Total
		Extremely Happy	Happy	Neutral	Unhappy	
Nationality	Other(Arab)	8	1	0	1	10
	Bahraini	0	0	1	0	1
	Canadian	0	0	1	0	1
	Egyptian	1	6	2	3	12
	Indian	0	2	1	0	3
	Jordanian	5	2	6	0	13
	Kuwaiti	1	0	0	0	1
	Moroccan	0	1	0	0	1
	Palestinian	19	2	2	0	23
	Sudan	1	0	1	0	2
	Syrian	1	3	2	0	6
	UAE	15	27	34	6	82
	USA	0	0	1	0	1
	Vietnamese	0	0	1	0	1
Total		51	44	52	10	157

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.254[a]	39	.000
Likelihood Ratio	81.033	39	.000
N of Valid Cases	157		

a. 49 cells (87.5%) have expected count less than 5. The minimum expected count is .06.

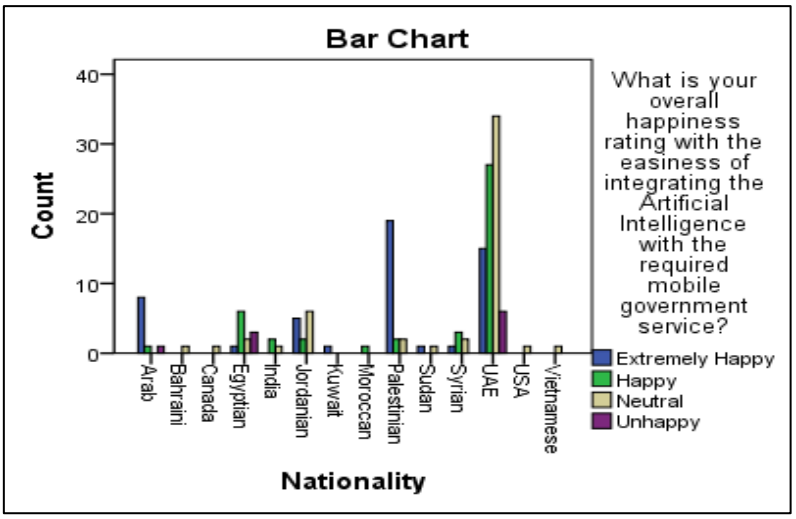


Figure 5: *Multiple Bar Chart*

The cross-tabulation analysis examines the relations between user satisfaction with the ease of integrating Artificial Intelligence in using mobile government services and the nationality of the respondents. One can spot from the data a significant variations in satisfaction between different nationalities. For example, among the UAE nationals, who were the majority in the sample, there was a wide distribution: 15 were "Extremely Happy," 27 "Happy," 34 "Neutral," and 6 "Unhappy." The Palestinian respondents were also highly satisfied, with 19 "Extremely Happy" and 2 "Happy"; but there were no "Unhappy" Palestinian responses. Egyptian reactions were mixed, with 6 "Happy" but 3 "Unhappy." Chi-square tests indicate that nationality and satisfaction with the integration of AI are significantly related, as shown by a Pearson Chi-Square of 78.254 and a p-value of 0.000. This would, therefore, be an indication that the differences in satisfaction are not mere chance; they are due to their nationality. This fact can also be very well supported by the likelihood ratio, enhancing the cultural or regional factors which influence user experiences and expectations. Nevertheless, it should be considered that the cells of 87.5% are expected to count less than 5, which may affect the reliability of the Chi-Square test due to small sample sizes of some nationalities. This limitation suggests caution regarding the interpretation of the results, as the given significant association can be influenced by the unequal

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

distribution of respondents in each nationality. Results indicate that nationalities vary in their satisfaction with the integration of AI in mobile government services, which may be explained by cultural background, expectations, and experience with technology. In general, UAE Nationals and Palestinians reported higher satisfaction probably because of higher expectations or more experiences, while other nationalities, such as Egyptians, gave mixed responses probably because of diverse experiences or expectations. In a nutshell, AI in mobile government services has generally been well-accepted; efficiency and ease of use seemingly come from the nationality of the user. The more these cultural subtleties are known, the more this may contribute to an improvement in the design and implementation of AI-enriched services, possibly having a greater positive impact on satisfaction levels from different types of users. Further research using larger, better-balanced samples may shed more light on findings.

Regression

The term regression is referred to as a function which represent the dependence of one variable upon other variable(s). If one variable is involved as independent variable the regression said to be simple while two or more variables are involved the regression will be multiple. *(D. N. Gujarati, 1995)*. In this section we are going to run multiple linear regression taking overall happiness taking as response variable.

Table No 9: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.848[a]	0.718	.709	.511

a. Predictors: (Constant), What is your overall happiness rating with the experience gained upon integrating the Artificial Intelligence with the required mobile government service?, Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?, What is your overall happiness rating with the speed of getting the required mobile government service?, What is your overall happiness rating with the usefulness of integrating the Artificial Intelligence with the required mobile government service?, What is your overall happiness rating with the effectiveness of integrating the Artificial Intelligence with the required mobile government service?

b. Dependent Variable: What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Table No 10: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100.722	5	20.144	77.068	0.000[b]
	Residual	39.469	151	.261		
	Total	140.191	156			

a. Dependent Variable: What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?

b. Predictors: (Constant), What is your overall happiness rating with the experience gained upon integrating the Artificial Intelligence with the required mobile government service?, Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?, What is your overall happiness rating with the speed of getting the required mobile government service?, What is your overall happiness rating with the usefulness of integrating the Artificial Intelligence with the required mobile government service?, What is your overall happiness rating with the effectiveness of integrating the Artificial Intelligence with the required mobile government service?

Table No 11: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.100	.156		.640	.523
	What is your overall happiness rating with the speed of getting the required mobile government service?	.245	.073	.179	3.374	.001
	Was the required mobile government service empowered by any form of Artificial Intelligence technique/engine?	-.068	.114	-.028	-.596	.552

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

What is your overall happiness rating with the usefulness of integrating the Artificial Intelligence with the required mobile government service?	.028	.068	.028	.411	.681
What is your overall happiness rating with the effectiveness of integrating the Artificial Intelligence with the required mobile government service?	.333	.080	.334	4.157	.000
What is your overall happiness rating with the experience gained upon integrating the Artificial Intelligence with the required mobile government service?	.432	.079	.427	5.483	.000

a. Dependent Variable: What is your overall happiness rating with the easiness of integrating the Artificial Intelligence with the required mobile government service?

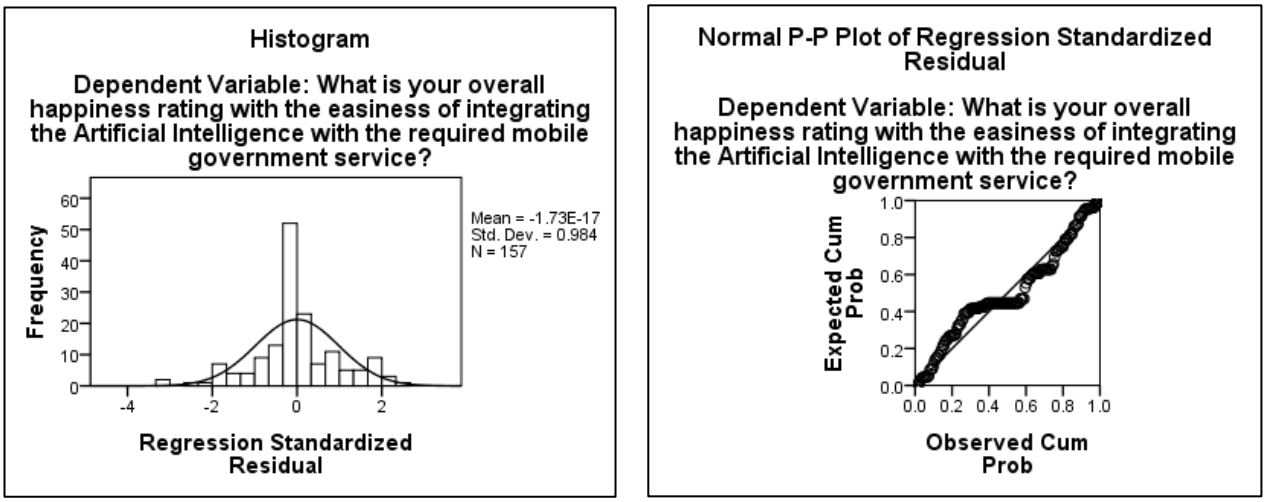


Figure 6: *Diagnostic plots*

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

The regression analysis conducted on the overall users' happiness about the ease with which Artificial Intelligence can be integrated into mobile government services has revealed some key drivers of user satisfaction. The summary of the model shows a very strong fitness of the data, as evidenced by an R value of 0.848, showing a high correlation between predictors and the dependent variable. In this case, the R Square value of 0.718 shows that about 71.8% of the users' happiness may be explained by the predictors in this model. This is further emphasized by an adjusted R Square of 0.709 to account for the number of predictors in order for the reliability of the model to be valid. The standard error of the estimate is 0.511 which means, on average, the observed values fell .511 from the regression line. These help validate the accuracy of the model. The significance of the model is further asserted by the ANOVA table. The null hypothesis can be rejected since the regression sum of squares gives a far greater weight than the residual sum of squares, meaning that this model accounts for a lot of variation within the dependent variable. Furthermore, the F-statistic of 77.068, with an associated p-value of 0.000, therefore suggests that the regression model is statistically significant for the joint predictors' effect on users' happiness with ease of integration. Looking now into the coefficients, the analysis offers insight regarding respective contributions of each predictor variable. The unstandardized coefficients give a quantity of change that takes place in the dependent variable in case of one unit of change in each of the predictors; standardized coefficients allow for a comparison between the importance of each predictor. Amongst the various predictors, "overall happiness rating with the speed of getting the required mobile government service" had a coefficient of 0.245, indicating a significant positive relationship. That is, users who are satisfied with speed of service are likely to show higher happiness in using the ease of integration with AI, underlining efficient service delivery as important in improving user satisfaction. The interesting thing is that the predictor, which showed whether the required mobile government service was empowered by AI techniques, has given a coefficient of -0.068. From this result, it can be found that it is not statistically significant, having a p-value of 0.552, which implies that the mere presence of AI does not directly lead to any impact on users' happiness. This means that as this variable appears, it is not as influential as other factors would be, such as those touching on effectiveness and experience in relation to AI integration. The same argument goes for the variable which measured happiness in terms of the perceived usefulness of AI integration, with its coefficient estimate being 0.028, hence it was not significant at p = 0.681, further cementing the fact that perceived usefulness on its own cannot be relied upon to stir user satisfaction with AI integration. The opposite is the case with the effectiveness of AI integration and experience gained thereof in predicting the integration of AI. The coefficient for "overall happiness rating w/ the effectiveness of integrating AI" was 0.333, and the p-value of 0.000 shows that a user who perceives AI to be effective will mostly be satisfied with its ease of integration. This points to a very important need: government services need not only to adopt AI solutions, but these solutions also have to live up to the expectations of users. The predictor "overall happiness rating with the experience gained upon integrating AI" therefore produced the highest coefficient, 0.432, with a t-value of 5.483 and a p-value of 0.000. Therefore, this result implies that overall user experience is the most critical factor that determines the happiness of the integration of AI. This shows the importance of having good user experiences in order to facilitate successful adoption of AI technologies by the end-users of mobile government services. In other words, the results of the regression analysis give some insights into what could be the substantive determinants of user satisfaction with the integration of AI into mobile government services. It has shown that the critical determinant of user happiness is the effectiveness of AI and the general experience from its integration, while such elements as the mere presence of AI or perceived usefulness are not important. These results suggest that, in the future,

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

government agencies should pay more attention to the efficiency of AI implementations and user experiences in order to raise both adoption rates and satisfaction. Only then can policymakers and developers ensure these AI technologies meet expectations and can usefully enhance the quality of public services. The distillation of the analyses brings out the critical role that the processes of user-centered design and improvement of AI capabilities play in realizing useful user experiences in the realization of effective integration of AI into mobile government services.

Correlation Analysis

Correlation is defined as the degree of linear relationship between two variables denoted by "r", the correlation coefficient close to one indicates strong correlation. *(Heiman, 2000)*. In this section we discuss correlation matrix of all related variables.

Table No 12: Correlation Matrix

		Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Q3	Pearson Correlation	1	.736**	.560**	.606**	.095	.571**	.537**	.597**	.566**
	Sig. (2-tailed)		.000	.000	.000	.236	.000	.000	.000	.000
	N	157	157	157	157	157	157	157	157	157
Q4	Pearson Correlation	.736**	1	.580**	.579**	.113	.530**	.463**	.549**	.457**
	Sig. (2-tailed)	.000		.000	.000	.157	.000	.000	.000	.000
	N	157	157	157	157	157	157	157	157	157
Q5	Pearson Correlation	.560**	.580**	1	.431**	.072	.405**	.424**	.462**	.420**
	Sig. (2-tailed)	.000	.000		.000	.368	.000	.000	.000	.000
	N	157	157	157	157	157	157	157	157	157
Q6	Pearson Correlation	.606**	.579**	.431**	1	.156	.540**	.519**	.574**	.496**
	Sig. (2-tailed)	.000	.000	.000		.051	.000	.000	.000	.000
	N	157	157	157	157	157	157	157	157	157
Q7	Pearson Correlation	.095	.113	.072	.156	1	.369**	.232**	.211**	.288**
	Sig. (2-tailed)	.236	.157	.368	.051		.000	.003	.008	.000
	N	157	157	157	157	157	157	157	157	157
Q8	Pearson Correlation	.571**	.530**	.405**	.540**	.369**	1	.710**	.646**	.691**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	157	157	157	157	157	157	157	157	157
Q9	Pearson Correlation	.537**	.463**	.424**	.519**	.232**	.710**	1	.787**	.813**

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

	Sig. (2-tailed)	.000	.000	.000	.000	.003	.000		.000	.000
	N	157	157	157	157	157	157	157	157	157
Q10	Pearson Correlation	.597**	.549**	.462**	.574**	.211**	.646**	.787**	1	.798**
	Sig. (2-tailed)	.000	.000	.000	.000	.008	.000	.000		.000
	N	157	157	157	157	157	157	157	157	157
Q11	Pearson Correlation	.566**	.457**	.420**	.496**	.288**	.691**	.813**	.798**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	157	157	157	157	157	157	157	157	157

**. Correlation is significant at the 0.01 level (2-tailed).

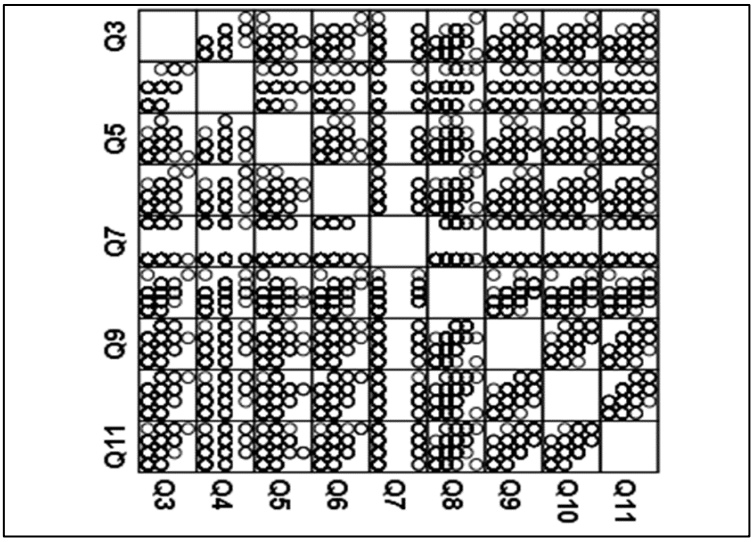


Figure 7: *Scatter Plot Matrix*

The correlation analysis does show few meaningful relationships about user satisfaction in respect to the services of mobile government. First, it reflects that the overall experience and accuracy of information provided are positively and strongly related. This infers that those users who perceive the information as more accurate perceive the overall experience as better. Precise information instills confidence in the service among users. There is also a very strong relation between overall happiness and speed towards the delivery of service provided to the user. Quicker the response, the more satisfied the users are. These days, with everything running at such a fast pace, timely services are expected, or else frustration would build up. A strong positive correlation can also be seen between overall happiness and perceived usefulness of integrating AI. This helps those people who are quite satisfied with the AI features because effective AI, in turn, increases the level of efficiency and personal support. Overall, happiness and how effective the integration of AI has been are strongly related in a positive relationship; this means people who

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

consider AI to be effective are bound to be satisfied. On the other hand, the correlation of overall happiness with empowering AI is very weak; hence, having AI integrated into the system does not really promise satisfaction. People may not like AI unless it improves in their experience. Finally, ease of integration is strongly related to the effectiveness of AI: effective tools are usually easy for the user since they can manipulate them easily and find what they are looking for. On the whole, this analysis underlines that, with a view to increasing satisfaction and making users trust the use of mobile government services, AI integrations must be available, effective, accurate, speedy, and truly useful.

Independent t-test

In this section, we test significance difference among overall happiness rating among gender (Male and Female), and for this purpose we run independent t-test.

Table No 13: Independent t-test by gender

		Levene's Test for Equality of Variances		Independent t-test		
		F	Sig.	t	df	Sig. (2-tailed)
What is your overall happiness rating with the usefulness of integrating the Artificial Intelligence with the required mobile government service?	Equal variances assumed	.084	.772	.318	155	.751
	Equal variances not assumed			.313	118.427	.755
What is your overall happiness rating with the effectiveness of integrating the Artificial Intelligence with the required mobile government service?	Equal variances assumed	1.304	.255	-.767	155	.444
	Equal variances not assumed			-.753	117.705	.453
What is your overall happiness rating with	Equal variances assumed	1.335	.250	-.687	155	.493

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

the easiness of integrating the Artificial Intelligence with the required mobile government service?	Equal variances not assumed			-.672	116.106	.503
What is your overall happiness rating with the experience gained upon integrating the Artificial Intelligence with the required mobile government service?	Equal variances assumed	.127	.722	.446	155	.656
	Equal variances not assumed			.446	124.997	.656

The independent t-test results regarding the happiness ratings about the integration of Artificial Intelligence in mobile government services indicate that there is no significant difference by gender in regard to various dimensions of user satisfaction. The usefulness of the integration of AI: Based on Levene's test for equality of variances: F = 0.084 and p = 0.772, and based on the t-test: t = 0.318, df = 155, p = 0.751. That means male and female users share the same perception about the usefulness of integrating AI, meaning they understand the value that AI adds to service delivery. On this basis, significant differences in AI effectiveness have not appeared, as confirmed by the Levene's test showing F = 1.304, p = 0.255 and a t-test which shows t = -0.767 df = 155, p = 0.444. This suggests that both genders have similar perceptions regarding AI's usefulness in mobile government services. Further, the test results also reveal there is no significant difference on the easiness of integrating AI: Levene's test and t-test showing t = -0.687; df = 155 and p = 0.493, and therefore both genders similarly perceive the manageability of the integration of AI. Finally, with regard to the general experience obtained from the integration of AI, from the Levene's test, F = 0.127, p = 0.722 to the t-test: t = 0.446, df = 155, p = 0.656, both signals are that user satisfaction with the experience is shared equally among genders. Put differently, these findings suggest that, in fact, gender does not have a significant impact on user satisfaction with regard to perceived usefulness, effectiveness, easiness, or overall experience of integrating AI into mobile government services, thereby meaning both genders perceive AI as one which equally would impact improvements in those services.

DISCUSSION

A study of mobile government services, based on answers from 157 people, shows that these services are very popular, with 97.5% of users having used them in the past year. Common platforms include TAMM (Abu Dhabi) and RTA-Dubai. Users are mostly satisfied with their experience, giving high scores for how fast and easy it is to complete tasks. However, people have different opinions about using AI. While AI features are generally liked, with average ratings between 2.13 and 2.20, users think AI could do more. Further analysis shows that users of AI-enhanced services report much higher satisfaction, a finding supported by statistical evidence (p = 0.005). Regression analysis emphasizes the importance of AI effectiveness and overall user experience in determining satisfaction. Factors such as service speed and the effectiveness of AI play crucial roles in this satisfaction. These results suggest that, in the future, government agencies should pay more attention to the efficiency of AI implementations and user experiences in order to raise both adoption rates and satisfaction. Only then can policymakers and developers ensure these AI technologies meet expectations and can usefully enhance the quality of public services. The distillation of the analyses brings out the critical role that the processes of user-centered design and improvement of AI capabilities play in realizing useful user experiences in the realization of effective integration of AI into mobile government services. The t-test suggest that, in fact, gender does not have a significant impact on user satisfaction with regard to perceived usefulness, effectiveness, easiness, or overall experience of integrating AI into mobile government services, thereby meaning both genders perceive AI as one which equally would impact improvements in those services. The

correlation of overall happiness with empowering AI is very weak; hence, having AI integrated into the system does not really promise satisfaction. People may not like AI unless it improves in their experience. Finally, ease of integration is strongly related to the effectiveness of AI: effective tools are usually easy for the user since they can manipulate them easily and find what they are looking for. On the whole, this analysis underlines that, with a view to increasing satisfaction and making users trust the use of mobile government services, AI integrations must be available, effective, accurate, speedy, and truly useful.

CONCLUSION

The analysis of user satisfaction about the integration of Artificial Intelligence in mobile government services offers quite a number of interesting insights from the diverse group of respondents. In fact, out of the 157 participants surveyed, 97.5% responded that they had used mobile government services in the past year; this truly reflects how humanity has become increasingly dependent on technology to conduct transactions with the government. The most utilized platforms, such as TAMM in Abu Dhabi and RTA in Dubai, demonstrate high levels of activity across transport-related services, thereby proving very effective at meeting user demand. However, from a more particular perspective on AI in service delivery, while the usage rate is high, the overall rating is mixed. While users generally acknowledge the potential of AI to make service delivery more effective, ratings suggest that in real-world applications, these features often do not live up to expectations. For example, related to the AI features, satisfaction averages ranged from 2.13 to 2.20, reflecting difficulties with either the functioning of the feature or greater expectations about what AI can deliver. In fact, such a gap would serve as an urgent signal to government agencies to put in more effort towards perfecting the capability of AI for better handling of user demands. Another interesting topic is the demographic distribution of the sample. A significant number of the respondents were UAE nationals, followed by Palestinians and Jordanians. This provides a rich, multicultural backdrop for such data, suggesting that differences in user experience might be highly variable depending on the cultural context and the familiarity of the citizens with services on offer. The high ratings in satisfaction could point out, according to UAE Nationals and Palestinians, their high level of exposure and comfort with technology. On the contrary, mixed responses provided by other nationalities do indicate that the design of AI service may require a more tailored approach. The very robust reliability analysis returned a Cronbach's Alpha of 0.901, which means these measures are very consistent and reliable. These results indicated that the user satisfaction was significantly related to perceived effectiveness in AI, hence providing evidence that government agencies must invest resources and effort in developing such AI tools that actually add value to the user experience. Surprisingly, it did not show significant differences in satisfaction between male and female users, indicating that both perceive AI integration to be equally helpful for them. This result underlines the potential for solutions offered by AI to serve a wide audience without distortion. The general reactions to the integrations of AI into mobile government services are very positive; there is yet much room to improve. Government agencies, therefore, must work on refining the capabilities of AI in order to meet the diverse needs of the users in pursuit of better satisfaction and further dispersal. This gap needs to be addressed; afterwards, the integration of AI should be done properly in order to establish more trust and engagement on the part of users in terms of the quality and efficiency of public services. Thus, the analysis provides a very tangible basis for future improvements in the field of AI-driven mobile government services.

REFRENCES

[1] Agarwal, R. and Dhar, V., 2014. Big data, data science, and analytics: The opportunity and challenge for IS research. Information systems research, 25(3), pp.443-448.
[2] Brynjolfsson, E. and McAfee, A.N.D.R.E.W., 2017. Artificial intelligence, for real. Harvard business review, 1, pp.1-31.
[3] Chen, Y.C., Ahn, M.J. and Wang, Y.F., 2023. Artificial intelligence and public values: value impacts and governance in the public sector. Sustainability, 15(6), p.4796.
[4] Dwivedi, Y.K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A. and Galanos, V., 2021. Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice, and policy. International journal of information management, 57, p.101994.

[5] Galvão, C.A.T., 2023. OECD'S and Unesco's recommendations on artificial intelligence in the 2020s: exploring approaches in the context of multilateralism and the world order.
[6] Green, S. B., & Salkind, N. J., 2016. Using SPSS for Windows and Macintosh, Books a la Carte (8th Edition). Pearson eBooks. Retrieved from https://dl.acm.org/citation.cfm?id=3066228
[7] Gujarati, D. N., 1995. Basic Econometrics. McGraw-Hill Companies.
[8] Gustafsson, J., 2017. Single case studies vs. multiple case studies: A comparative study.
[9] Heiman, G. W., 2000. Basic statistics for the Behavioral sciences. Retrieved from https://ci.nii.ac.jp/ncid/BA28755321
[10] Kline, P., 2014. An easy guide to factor analysis. Routledge eBooks. https://doi.org/10.4324/9781315788135
[11] Lu, H., Li, Y., Chen, M., Kim, H. and Serikawa, S., 2018. Brain intelligence: go beyond artificial intelligence. Mobile Networks and Applications, 23, pp.368-375.
[12] Myers, J. L., Well, A. D., & Lorch, R. F., Jr., 2013. Research design and statistical analysis. Routledge eBooks. https://doi.org/10.4324/9780203726631
[13] Walpole, R. E., 2007. Probability & Statistics for engineers & scientists. Prentice Hall.
[14] Yerlikaya, S. and Erzurumlu, Y.Ö., 2021. Artificial intelligence in the public sector: a framework to address opportunities and challenges. The Fourth Industrial Revolution: Implementation of Artificial Intelligence for Growing Business Success, pp.201-216.
[15] Arora, A., & Rahman, Z., 2016. Information technology investment and government performance: A research framework. Public Administration Review, 76(2), pp.185-196.
[16] Brown, M. and Osborne, S.P., 2013. Risk and innovation: Towards a framework for risk governance in public services. Public Management Review, 15(2), pp.186-208.
[17] Chen, D.Q., Preston, D.S. and Swink, M., 2015. How the use of big data analytics affects value creation in supply chain management. Journal of Management Information Systems, 32(4), pp.4-39.
[18] Cordella, A., & Tempini, N., 2015. E-government and organizational change: Reappraising the role of ICT and bureaucracy in public service delivery. Government Information Quarterly, 32(3), pp.279-286.
[19] Dwivedi, Y.K., Rana, N.P., Janssen, M., Lal, B., Williams, M.D. and Clement, M., 2017. An empirical validation of a unified model of electronic government adoption (UMEGA). Government Information Quarterly, 34(2), pp.211-230.
[20] Estevez, E. and Janowski, T., 2013. Electronic governance for sustainable development—conceptual framework and state of research. Government Information Quarterly, 30, pp.94-109.
[21] Gil-Garcia, J.R., Helbig, N. and Ojo, A., 2014. Being smart: Emerging technologies and innovation in the public sector. Government Information Quarterly, 31, pp.15-22.
[22] Janssen, M., Charalabidis, Y., & Zuiderwijk, A., 2012. Benefits, adoption barriers and myths of open data and open government. Information Systems Management, 29(4), pp.258-268.
[23] Kraemer, K.L., King, J.L., Dunkle, D.E. and Lane, J.P., 2013. Information technology and administrative reform: Will e-government be different?. International Journal of Electronic Government Research, 9(2), pp.1-20.
[24] Lee, J. and Kwak, Y.H., 2012. An open government maturity model for social media-based public engagement. Government Information Quarterly, 29(4), pp.492-503.
[25] Luna-Reyes, L.F., Gil-Garcia, J.R., & Cruz, C.B., 2007. Collaborative digital government in practice: Understanding the dynamics of boundary objects and their use in cross-agency collaborations. Government Information Quarterly, 24(4), pp.664-677.
[26] Luna-Reyes, L.F., Zhang, J., & Gil-Garcia, J.R., 2014. Digital government transformation and internet portals: The coevolution of technology, organizations, and institutions. Government Information Quarterly, 31(3), pp.545-556.
[27] Meijer, A., & Bolivar, M.P.R., 2016. Governing the smart city: A review of the literature on smart urban governance. International Review of Administrative Sciences, 82(2), pp.392-408.
[28] Mergel, I., 2013. Social media adoption and resulting tactics in the US federal government. Government Information Quarterly, 30(2), pp.123-130.
[29] Norris, D.F. and Reddick, C.G., 2013. E-government at the American grassroots: Not ready to abandon the traditional government information supply model. Government Information Quarterly, 30(3), pp.220-229.

Journal of Information Systems Engineering and Management
2025, 10(58s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

[30] Osman, I.H., Anouze, A.L., Irani, Z., Lee, H., Balci, A., Medeni, T. and Weerakkody, V., 2014. COBRA framework to evaluate e-government services: A citizen-centric perspective. Government Information Quarterly, 31(2), pp.243-256.
[31] Rana, N.P., Dwivedi, Y.K., Williams, M.D. and Weerakkody, V., 2015. Investigating success of an e-government initiative: Validation of an integrated IS success model. Information Systems Frontiers, 17(1), pp.127-142.
[32] Reddick, C.G., 2011. Citizen interaction and e-government: Evidence for the managerial, consultative, and participatory models. Transforming Government: People, Process and Policy, 5(2), pp.167-184.
[33] Scholl, H.J., & Luna-Reyes, L.F., 2011. Uncovering dynamics of e-government integration: The case of criminal justice information systems in the US. Government Information Quarterly, 28(1), pp.23-32.
[34] Shareef, M.A., Dwivedi, Y.K., Stamati, T. and Williams, M.D., 2014. SQ mGov: A comprehensive service-quality paradigm for mobile government. Information Systems Management, 31(2), pp.126-142.