

**KEY DETERMINANTS OF CITIZENS'
BEHAVIOURAL INTENTIONS TOWARDS
USING E-GOVERNMENT SERVICES' PORTAL
IN PALESTINE**

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IN PALESTINE**

by

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**PENENTU UTAMA HASRAT TINGKAH LAKU PENDUDUK DALAM
MENGUNAKAN PORTAL PERKHIDMATAN E-KERAJAAN DI
PALESTIN**

ABSTRAK

Dalam era Internet ini, banyak kerajaan menggunakan Teknologi Maklumat dan Komunikasi (ICT) untuk memenuhi jangkauan rakyat dengan menggunakan kaedah baru penyampaian perkhidmatan yang memecahkan sempadan organisasi dengan beralih arah ke kerajaan elektronik (e-kerajaan). Walau bagaimanapun, penerimaan rakyat terhadap perkhidmatan ini adalah pada kadar yang rendah di banyak negara. Baru-baru ini, kerajaan Palestin telah melancarkan portal perkhidmatan e-kerajaan. Tujuan kajian ini ialah mengkaji faktor-faktor yang mempengaruhi hasrat tingkah laku rakyat Palestin terhadap penggunaan portal perkhidmatan kerajaan. Ia menggabungkan Model Penyatuan lanjutan Penggunaan Kerajaan Elektronik, atau Unified Model of Electronic Government Adoption (UMEGA) di mana konstruk persepsi risiko pelbagai dimensi digunakan dengan kepercayaan (trust) dalam portal perkhidmatan kerajaan dan wadah-wadah sebelumnya, Keperluan keselamatan rakyat Palestin dan titik Akses Penyatuan berfungsi sebagai penentu berpotensi hasrat tingkah laku rakyat dalam menggunakan portal e-perkhidmatan kerajaan. Kajian ini bersifat kuantitatif, dengan teknik persampelan kuota dan bertujuan digunakan untuk mengumpul data dari rakyat Palestin yang tinggal di Tebing Barat dan pengguna berpotensi untuk menggunakan portal e-perkhidmatan kerajaan. 415 respon sahijah berjaya dikumpul dan dianalisis menggunakan PLS-SEM. Dapatan menunjukkan bahawa jangkauan prestasi, risiko kos peluang, kepercayaan terhadap e-perkhidmatan

kerajaan, keperluan keselamatan dan titik akses yang bersatu adalah determinan utama sikap rakyat. Sikap dan kepercayaan rakyat dalam portal e-perkhidmatan kerajaan adalah penentu (determinan) utama hasrat tingkah laku rakyat, dan keadaan-keadaan sekeliling mempengaruhi jangkauan usaha secara positif. Dapatan-dapatan kajian menyumbang kepada ilmu sedia ada tentang perkhidmatan e-kerajaan, khususnya kepada hasrat tingkah laku rakyat dalam menggunakan perkhidmatan e-kerajaan, dan menyumbang kepada amalan dengan membekalkan pemaju dengan wawasan berkenaan apa yang memotivasi rakyat dalam menggunakan teknologi berkenaan. Kajian ini juga mencadangkan beberapa saranan untuk pelbagai pihak yang terlibat dalam pembangunan e-perkhidmatan kerajaan.

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ABSTRACT

With the internet era, governments are using the Information and Communication Technologies (ICT) to meet their citizens' expectations by adopting new means for service delivery that break the organizational boundaries by transforming to electronic governments (e-governments). However, citizen's acceptance of these services is at a low rate in many countries. Recently, Palestinian government has launched its e-government services' portal. The aim of this study is to investigate the factors that influence Palestinians behavioral intention towards the use of e-government services' portal. It integrates an extended Unified Model of Electronic Government Adoption (UMEGA) in which a multidimensional perceived risk construct is used with trust in e-government services' portal and its antecedents, Safety needs of the Palestinians, and Unified-Access point as potential determinants of citizens' behavioral intention to use the e-government services' portal. The study is of a quantitative nature, a structured questionnaire with quota and purposive sampling technique was used to collect the data from the Palestinian citizens who live in West Bank and intend (potential users) to use the e-government services' portal were 415 valid responses were collected and analyzed using PLS-SEM. The findings revealed that performance expectancy, opportunity cost risk, trust in e-government services portal, safety needs, and unified access points are the main determinants of citizens' attitudes. Citizens' attitudes and trust in e-government services portal are the main

determinants of citizens' behavioral intentions, and facilitating conditions positively influence effort expectancy. The findings of this research contribute to the existing body of knowledge regarding e-government services, in particular the behavioral intentions of the citizens to use the e-government services and contribute to practise by providing developers with some insight into what motivates citizens to adopt such technologies. The study suggested some recommendations for the different parties involved in the e-government services portal development as well.

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Businesses in the private sector are constantly competing to be the first to market with new products and services that take advantage of the internet and other forms of information and communication technologies (ICTs) to streamline the delivery of these products and services to consumers. Likewise, numerous administrations globally are adopting these advancements to enhance their provision of services to their populace (Zeebaree et al., 2023; Xin et al., 2022). With the rise of mobile devices and cloud computing, information is more accessible than ever before, citizens now anticipate that their governments will exhibit a similar degree of promptness as businesses in the private industry (Li & Shang, 2020; Mohammed, 2019). This has helped to elevate the importance of the concept of electronic government (e-government). As the e-government services are being utilized for at least two decades, almost every country today maintains some web presence, whether for the express purpose of communicating with its population or for the distribution of government services to the public, company owners, and other nations (Xin et al., 2022; Rouibah et al., 2022). The government's participation in these digital channels paves the way for an increase in the efficacy of public sector services through an emphasis on and enhancement of transparency, and governance, which has helped to increase citizens' levels of empowerment through information access, enhance collaboration with businesses and industries, and create effective governance (Kanaan et al., 2023). E-transformation government's into an ICT-based service delivery channel has the potential to promote civic engagement and foster positive social and democratic change (Abu Shanab, 2017), the outcome or effectiveness of this initiative

relies on various factors, including the efficiency with which these investments are made, the breadth of the government's vision for how ICT will be used, and, most importantly, the rate at which individuals and businesses accept and intend to use the offered services (Abu Shanab, 2017). The implementation of e-government services portal is a relatively new in developing countries such as Palestine as it was launched in December 2022. Citizens in these scenarios may have had little prior exposure to such digital platforms, this leads to low rates of acceptance and intention to use the government-provided digital solutions among the citizens, which impedes the exerted efforts in concentrating on electronic governance in these countries to achieve sustainable development goals and associated targets (Xin et al, 2022). Hence, the need for examining citizens attitudes behavioral intentions toward using the e-government arises.

Revythi & Tselios (2019) defined technology acceptance as the willingness of a user to use the technology and tools which have been developed to support it. Based on this definition, in the context of embracing new digital platforms such as e-government services portals, acceptance of, and willingness to use a technology are considered synonymous. Both phrases show an individual's or entity's willingness to embrace and use technology for a variety of goals. Hereafter, the terms acceptance, and willingness to use will be used interchangeably to reflect the same meaning.

1.1.1 E-government definition and its benefits

E-government is the practice of using ICTs and web-based technological systems to enhance access to official government information and provide services to individuals, corporations, and government departments (UN Survey, 2020), as well as improving governmental services' efficiency (MacLean & Titah, 2022). Holistically,

e-government fulfils the following functions (1) virtual collaboration with government stakeholders, (2) upgrading ICT architectures and infrastructure efficiencies, (3) streamlining man and machine interfaces, (4) increasing those interested in participating on social platforms, and (5) fortifying administrative protocols (Al-Sartawi et al., 2021). Citizens' attitudes towards the use of e-government services are largely influenced by the expected benefits that come with using these services (Kanaan et al, 2023; Alryalat et al., 2023), particularly that the utilization of e-government services has impressive positive benefits at institutional, and individual (citizens) levels. At the institutional level, it aids in raising the efficiency and effectiveness of work at institutions (Fahm, 2023), raising the level of accountability, and reducing corruption (Adam, 2020), and eliminating paper-based operations could save the government money and reduce the environmental impact by reducing waste (Fahm, 2023). Which implies improved service access, lower costs for government administration, and more openness about government spending plans. At the citizens' level, who are the most obvious group to gain from digital government services (Fahm, 2023), functional and non-functional benefits are attained (Alghamdi, 2017); functional benefits are those that are connected to the advantages of the services or transaction itself, such as the ability to complete the transaction entirely online, streamlined processes, simpler accessibility via a centralized login system that allows citizens to access various types of services provided by various departments, compliance with regulations, and transaction speed (Alryalat et al., 2023; Alghamdi, 2017). Non-functional benefits, on the other hand, have nothing directly to do with the functionality of the e-services or transactions themselves, but rather with the convenience they provide to users by, for example, allowing them to access the services whenever and wherever they like, eliminating the need for physical attendance

at the government offices and agencies, improving record keeping and accounting through computerization (Alghamdi, 2017).

1.1.2 A brief overview of e-government development

Every two years, the United Nations publishes a report detailing the global state of e-government. The E-Government Development Index (EGDI) is compiled for the Member States in the most up-to-date survey published in 2022. With a possible range of 0-1 for the EGDI, the report categorizes the Member States into four groups: very high ranking (EGDI > 0.75), high ranking (0.5 < EGDI < 0.75), medium ranking (0.25 < EGDI < 0.5), and poor ranking (EGDI < 0.25) with the global average being 0.6201 (UN Survey, 2022). To further categorize and rank countries to gain a better understanding of their performance, the EGDI divides them into four equal quartile subgroups or rating classes. Figure 1.1 illustrates these rating classes.

Low EGDI				Middle EGDI				High EGDI				Very High EGDI			
L1	L2	L3	LM	M1	M2	M3	MH	H1	H2	H3	HV	V1	V2	V3	VH

Figure 1.1 Rating classes within EGDI group

Source: United Nation E-government Survey (2020)

The 2022 Survey emphasizes the continuous advancement of global e-government development trends, and the progress of countries in transitioning from lower to higher levels of EGDI. In comparison to 57 countries in 2020, 60 countries in this edition had EGDI values ranging from 0.75 to 1.00, reflecting a 5.3% increase in this category. 53 countries have intermediate EGDI values ranging from 0.25 to 0.50, while 73 have high EGDI values ranging from 0.50 to 0.75. Seven countries have low EGDI levels (0.00 to 0.25), one less than in 2020. The conclusion of the 2022 Survey justifies the continuation of e-government development on a global scale since

developing economies remain in the low or intermediate indices of e-government development (UN Survey, 2022). The UN survey suggests that income levels (as defined by GDP per capita) and EGDI values have a generally favorable association. EGDI levels are greater in better-income countries than in lower-income countries. Given technology developments in higher-income nations, this tendency is consistent with prior survey findings.

Unfortunately, no data about Palestine's rating in relation to other members is available in the United Nations survey (2022). However, regionally, regarding Arab Countries' surveys in 2021, The United Nations - Economic Commission for Western Asia (Government Electronic and Mobile Services (GEMS) Maturity Index - 2021, n.d) applied the GEMS Maturity index in 13 Arab countries including Palestine. This measure is based on three key factors: the availability and expansion of services, the utilization and satisfaction of services, and the delivery of services to the community (outreach). The study's stated objective is to evaluate the level of development of electronic services offered in Arab countries via electronic portals and mobile applications. The range of services and groups under consideration expanded dramatically in this assessment compared to the 2020 iteration. The overall GEMS scores for the 13 participating nations are displayed in Figure 1.2 (Government Electronic and Mobile Services (GEMS) Maturity Index - 2021, n.d). There was a large variation in the values (9.32%–82.58%), with the Arab region as a whole averaging 46.28%.

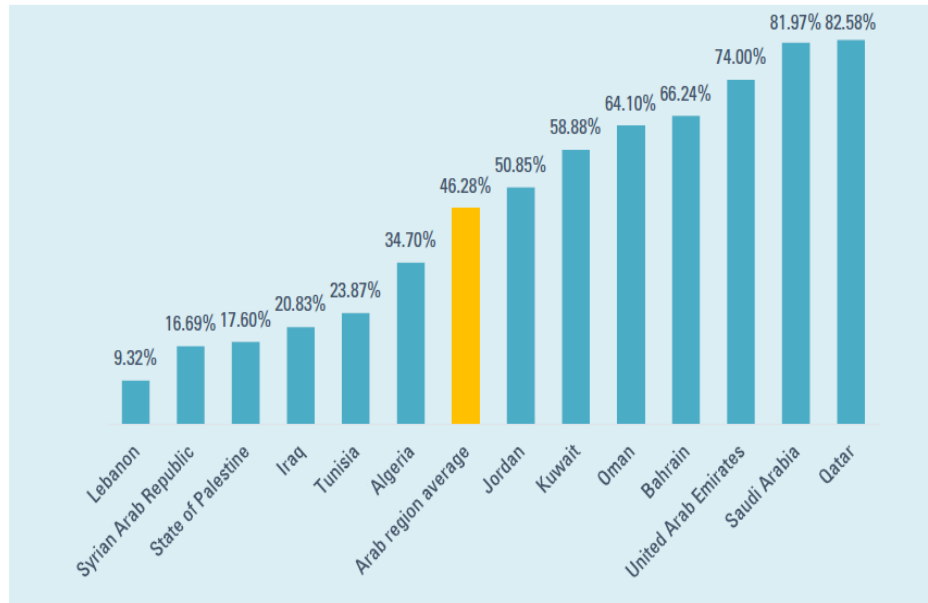


Figure 1.2 Overall Scores in GEMS values of the Arab Countries

Source: Government Electronic and Mobile Services (GEMS) Maturity Index - 2021, n.d calculations

Qatar leads the participating countries with a GEMS value of 82.58 %, followed by Saudi Arabia (81.79%), United Arab Emirates (74.0%), Bahrain (66.24%), Oman (64.1%), Kuwait (58.88%), and Jordan (50.85%). All these seven countries have a GMES value higher than the average of the Arab region. On the other hand, the remaining six countries have GEMS values lower than the average: Algeria (34.7%), Tunisia (23.87%), Iraq (20.83%), State of Palestine (17.60%), Syrian Arab Republic (16.69%), and Lebanon (9.32%). According to the report, the GEMS score of Palestine in 2020 was 13.9% and increased to 17.6% in 2021, despite of the increase, the two values are below the regional average values. The detailed three indices scores that comprise GEMS for Palestine were (service availability and development 12.3% in 2020 and increased to 17.32% in 2021, service use and satisfaction with it 13.3% and increased to 15.87% in 2021, and service delivery to citizens 18.7% in 2020 and increased to 21.6% in 2021). The modest scores of Palestine, especially when compared to other nations, underscore the pressing need for comprehensive studies

aimed at uncovering the underlying factors contributing to this disparity. These statistics not only serve as indicators of the current state of e-government acceptance but also emphasize the urgency of conducting thorough investigations to decipher the intricacies that hinder the broader utilization of these services among Palestinian citizens. In addition, as the Palestinian government consider the implementation and utilization of the e-government portal as a crucial objective in its primary policy papers and plans to enhance the effectiveness, efficiency, and functionality of its administrative system (Ibrahim et al., 2015) which will enhance the level of effectiveness and transparency of public sector institutions and consequently help in creating a basis for a knowledge-based and competitive economy, it is critical to ensure citizens' involvement in e-government activities, which necessitates determining what influences citizens' attitudes and behavioral intentions toward using the e-government services' portal. As a result, the current study is being carried out to investigate the determinants of citizens' attitudes and behavioral intentions to use the e-government services portal using a holistic approach to gain a better and broader understanding of the influencing factors from technical and non-technical perspectives.

1.1.3 E-government in some Arab countries

Many Arab countries in the region have launched their e-government services. Among these countries are Gulf countries, Egypt, and others. Next, a review of these systems is presented.

1.1.3(a) E-governments in Arab Gulf Countries

The Arab Gulf states comprise Oman, Kuwait, Saudi Arabia, Qatar, Bahrain, and the United Arab Emirates (Alkhusaili & Aljazzaf, 2020). These countries, reinforced by their relative wealth and the highly developed infrastructure compared

to the rest of the Arab countries, were among the first to rush early to adopt e-government projects and all these countries had implemented reforms and modernizations in governmental administration (Rarhoui, 2023). They've recently managed to occupy advanced positions globally, leading to the provision of mutual services to citizens of the Gulf Cooperation Council (GCC) countries, through a unified electronic portal: GCC eGovernment Portals. If a user wants to access the services offered in a specific member state, he or she can do so by clicking on that state's e-government program on this portal's homepage. Since the entire world was forced to take precautionary measures, including the general closure, such as imposing curfews, prohibiting gatherings, and reducing working hours, Gulf governments seized a golden opportunity to rely more on their electronic services as the emerging crisis of the Coronavirus unfolded. As a result, digital technologies are expanding inside the GCC countries, and governments are poised to revolutionize both the extent and quality of their service offerings (E-Government Services in the Middle East: An Economy Booster, 2023). They keep citizen-centered design at the heart of their e-government services and are upskilling their workforces to be ready for a dynamic future. As GCC governments and businesses mature, they will be more likely to invest in new capabilities and technology as part of a long-term, comprehensive framework. AI, 5G, cloud, and the Internet of Things (IoT) are among the top investment categories, with AI alone predicted to add more than \$300 billion to the Middle East's GDP by 2031 (E-Government Services in the Middle East: An Economy Booster, 2023). All six Gulf countries are ranked under the very high EGDI group except for Kuwait, which is ranked in the high EGDI class. The ranking as well as the EGDI values of 2020 and 2022 of each of these countries are listed in Table 1.1.

Table 1.1 E-government Development in the Gulf Countries

The Country	Rating Class	EGDI (2022)	EGDI (2020)
United Arab Emirates	VH	0.9010	0.8555
Bahrain	V1	0.7707	0.8213
Saudi Arabia	V2	0.8539	0.7991
Kuwait	HV	0.7484	0.7913
Oman	V1	0.7834	0.7749
Qatar	HV	0.7149	0.7173

Source: United Nation E-government Survey (2022).

1.1.3(b) E-government in Egypt

In January 2004, the Egyptian e-government portal was launched with the goal of introducing better governance to reduce government expenses and improve government efficiency (Wasef & Abou Seeda, 2022). In addition to that, e-government aimed to improve public service delivery, improve governance and participation, increase public resources management, as well as boost citizens' trust and confidence in the administration (Gohary, 2019). The Egyptian e-government implementation program was scheduled to take place in two phases, from 2001 to 2007, and then from 2007 to 2012, while the first stage focused on establishing the digitalization plans and legislative ecosystem, the second stage focused on the pilot implementation of nationwide projects. In the first stage, some progress was made such as including the development of pilot testing of some services on the portal, such as Telecom Egypt Company telephone and internet invoices, however, the program still faced by numerous challenges. Nonetheless, major socio-political, economic, and societal challenges, including the 2011 revolution, disrupted the second phase (Khamis, 2023).

When it was first launched in 2004, the e-government system provided a limited number of services including bill payment and the retrieval of official documents such as birth certificates and others (Wasef & Abou Seeda, 2022), in March 2018, the Egyptian government concluded the automation of the government's electronic portal,

which provides electronic access to all government services, including traffic, documentation, and monthly services (Wasef & Abou Seeda, 2022). According to the UN Survey (2022), Egypt is among the five countries in Africa (Nigeria, Rwanda, Angola, Egypt, and South Africa) that offer 20-21 public online services. In addition to the services, it has initiated the enactment of many laws and policies that contribute to the process of digital transformation and enabling e-government services.

Egypt rating class is H2 indicating high EGDI. Egypt EGDI has increased from 0.5527 in 2020 to 0.5895 in 2022, both values are still lower than the world average of 0.6201 (UN Survey, 2022). Despite of this high EGDI rank, Egypt has a low Social Progress Index (SPI) ranking in Tier 6, indicating a mismatch between e-government development and the wellbeing of its citizens. To improve the user experience of e-government services, governments must prioritize narrowing the technology-life quality gap, meeting citizens' needs, and focusing on social factors (Aldrees & Gračanin, 2023).

1.1.4 E-government in Palestine

The Palestinian government, like many others in the Middle East, has begun digitizing a sizable amount of its public services to facilitate more effective communication between government agencies and between those agencies and private sector firms, and their respective citizens (Obaid, 2021). In 2004, President Abbas authorized the PA's ministerial council to organize a national committee to develop the "National Strategy for Telecommunications and Information Technology," which was eventually adopted in June 2007 (da Silva Boski, 2017). The Ministry of Telecommunications and Information Technology (MTIT) was designated as the primary state entity in charge of implementing the strategy in collaboration with stakeholders such as higher education institutions and the private sector. However, the

primary impediment is the geopolitical context, that has its own consequences on the e-transformation of Palestine (Pimenidis, 2013). The Palestinians are currently experiencing one of their darkest periods due to the split that resulted in the establishment of two political and executive bodies in the summer of 2007. After Hamas's victory in parliamentary elections at the start of 2006, and the subsequent emergence of a political crisis due to hurdles to the peaceful transfer of power, the West Bank and Gaza Strip each came under the control of a different political party. Because of this split, the West Bank, and the Gaza Strip each have their own e-government office.

The West Bank e-government department launched the government network in March 2010 (da Silva Boski, 2017), despite the region's political crisis and the obstacles imposed by the Israeli government on the development ambitions of the Palestinians. It serves as a central network that links the various government departments and agencies together. Ten "G2G" (government-to-government) services have already been exchanged, and more are in the works so that all institutions can benefit from the greater transparency and enhanced government performance that comes from using an integrated electronic government. When it comes to Government to Business (G2B) and Government to Citizen (G2C) services, the e-government division has recently launched them to the public at the end of December 2022 (Palestinecabinet, 2022). The launched services "Hukumati" in Arabic which mean "My government" represents the primary platform for serving Palestinian citizens in the new Digital Services Vision in Palestine and across the globe. Eight ministries are offering e-services to the citizens including the Ministries of Interior, Finance, Transportation, Health, Labor, and Justice. In addition to Palestinian Land Authority and High Judicial Council. The provided services by each of these ministries to the

individuals as appearing on the portal website (sso.palestine.ps/Account/Login) are listed in Table 1.2.

Table 1.2 The offered services at the e-government portal

The Ministry/Authority/Council	The offered services	level
Ministry of Health	Health Insurance Fees	Individual Level
	Covid-19 Test Result	Individual Level
	Inquire about replacement fees for lost health insurance	Individual Level
Ministry of Interior	Passport Status	Individual Level
	Newborn Registration	Individual Level
	Change Address Request Status	Individual Level
Ministry of Finance	Property Tax Payment through Tax Payer Number	Individual Level
	Property Tax Payment by Property Details	Individual Level
	Clearance Certificate for Property Tax For Transfer Ownership Purposes	Individual Level
	Clearance Certificate for Property Tax for Municipal Purposes	Individual Level
	Inquire about the professional license file Number	Individual Level
	Tax Paying Number	Individual Level
	Financial Purposes Clearance Certificate	Individual Level
	Inquire about professional license bills	Individual Level
	Ministry of Transportation	Driving License Renewal
Drive Test Result		Individual Level
Theoretical Test Result		Individual Level
Palestinian Land Authority	Koshan (Land)	Individual Level
	Koshan (apartment)	Individual Level
	Land- Apartment Application Status	Individual Level
	Property Purchase Application Status	Individual Level
Ministry of Labor	Work Permission inside 48 lands	Individual Level
Ministry of Justice	Non-Conviction Certificate	Individual Level
High Judicial Council	Pay Traffic Violations	Individual Level

The Gaza Strip e-government department, however, continued to operate independently from West Bank authorities and introduced e-services in that territory. These are available to residents of the Gaza Strip via the e-portal, an online portal through which residents can gain access to and learn more about the various government services available to them. Services are offered in the G2C, G2G, and G2B models. These services give the user all the information they need to apply for the service, including links to download the necessary paperwork, but they are not yet transactional because the application process cannot be completed entirely online. Three stages—"Publish," "Interact," and "Transact"—make up the e-government process, as defined by the Centre of Democracy and Technology (2002). According to this system, Gaza Strip's e-government services are still in the second phase and have not yet progressed to the third. Although the government in the Gaza Strip is making some moves toward e-Government by publishing documents and answering residents' questions online, the uptake of these services has not been particularly widespread. A central database "Takamul" is one of the essential technical components required for the establishment of e-government which was provided by the Ministry of Communication in Gaza. The number of inquiries through the central government database "Takamul" has climbed from 178,292 in 2008 to 220,000,000 in 2017, while in 2016 the number of searches was 554,000,000 (MTIT, 2020). Many factors discourage people from utilizing e-government services, which could explain the cyclical nature of the user base.

Therefore, to avoid a similar issue of fluctuation in the usage rate in West Bank with the launching of the e-services, investigating the determinants of citizens' behavioral intentions toward e-government services is essential for the successful implementation of digital governance initiatives in Palestine as the world moves

toward digitization, especially that researching the factors that impact people' intents to use e-government portals can aid in the development of user-friendly platforms that expand access to government services, particularly for those living in distant or underserved locations. In addition, by uncovering the determinants of citizens' intentions to use e-government services, the study can contribute insights to design user-centric portals that align with the preferences and needs of the Palestinian population, and can contribute to future-proofing digital initiatives, ensuring that they remain relevant and effective as technology and user expectations evolve. Hence, a thorough study is required to explore these factors that may influence citizens behavioral intentions toward using the e-government services portal.

1.1.5 Citizens' intentions to use e-government services.

The SDGs indicator and target 16.7, which calls for "responsive, inclusive, participatory, and representative decision-making at all levels" underlines the significance of public participation in government. Despite the advantages of e-government services and the explosive growth of the ICT market, individuals' utilization of e-government services is low (Zeebaree et al., 2023; Zahid et al., 2022; Xin et al, 2022; Rabaa'i, 2017; ElKheshin, 2016; Rana and Dwivedi, 2015).

This low turnout can be attributed to several factors, including citizens' loss of confidence in e-government due to policy failures like a lack of transparency and political and administrative corruption (AlAwadhi, 2019), citizens' mistrust of the internet as a technical intermediary system for delivering services, and citizens' mistrust of the government itself (Carter et al., 2016). Literature confirms trust's role in technology acceptance and as a potential determinant of e-government use (Khan et al., 2021; Gultom, 2020; AlAwadhi, 2019; Zahid & Haji Din, 2019). This is strengthened by the findings of a recent study by Hooda et al. (2022), the researchers

incorporated e-government trust into the research model and empirically analyzed the results of 90 previous studies on e-government by means of meta-analytic structural equation modeling (MASEM) techniques. The findings show that users' trust is an important factor in whether they will use e-government services. According to Tan et al. (2008), while interacting with an e-government website, citizens apply the same level of trustworthiness standards that they would to a person. The trust of citizens in their government is bolstered when they can rely on high-quality e-government services. Hence developing a portal for qualified e-government services that shows functional efficiencies and helps to build citizens' trust in governmental e-services, particularly since the extent to which citizens are pleased with those services is an important metric in determining whether it will be adopted (Kanaan et al., 2023). Several potential antecedents of trust have been investigated in the literature on IT adoption, and their beneficial influences on trust have been validated. Some of these are information quality (Khan et al., 2021; Ranaweera, 2016; Abu-Shanab, 2014); perceived security (Khan et al., 2021; Zhu et al., 2021; Ejdys, et al., 2019); and perceived privacy (Khan et al., 2021; Ramos et al., 2018).

Another issue that reduced citizens' enthusiasm for using e-government services was their concern of potential risks (Zhu et al., 2021; Mensah et al., 2020; Ejdys et al., 2019). E-government projects can be categorized as large, multi-faceted, and complicated projects that share some risk similarities with e-business and e-commerce projects due to the electronic environment's infrastructure, limitless organizations, and business change. Citizens' perceptions of their own environmental, behavioral, and managerial control are diminished when they consider the risks associated with engaging in online transactions (Park & Tussyadiah, 2017). While some aspects of perceived risk are consistent across all e-contexts, others differed depending on the

specifics of the situation. When it comes to the e-commerce business, where most products on offer are physical goods, some types of risk, such as those related to the product's origins, transport, quality, and after-sale support, take on more significance (Ariffin et al., 2018; Ashoer & Said, 2016). In the realm of e-services, however, some of these considerations may be superfluous, while others, such as financial, time-loss, Opportunity cost, privacy/security, and technology risk, may take their place (Trinh et al., 2020; Park & Tussyadiah, 2017; Kassim & Ramayah, 2015).

Additional variables that are believed to impact individuals' use of e-government services consist of their anticipations and perceptions of the effectiveness and productivity of the systems (Kirat Rai et al., 2020; Gupta et al., 2016; Mellouli et al., 2016), as well as the availability and accessibility of the given services, and the conducive conditions for using these services (Mensah et al., 2020; Susanto et al., 2013; Alomari et al., 2012). Citizens' computer self-efficacy is also thought to influence their use of these services (Mellouli et al., 2016; Alomari et al., 2012), as well as the ease of use of these systems (Kamarudin et al., 2021; Khan et al., 2021; Almaiah & Nasereddin, 2020; Abu Shanab, 2019) and security and privacy concerns (Teymournejad et al., 2019; Abu Shanab, 2019).

Few studies have been undertaken in Palestine to analyze or investigate the underlying causes that prevent residents from engaging in e-government services. Ayyash et al. (2013) conducted a study to explore potential determinants of users' trust in e-government projects; Obaid et al. (2020) identified three factors (personal factors, reliability factors, and technical factors) as potential predictors of e-government service adoption with no empirical testing. Alkhateeb and Abdalla (2021) examined the antecedents of trust in e-government services provided to the Palestinian citizens by the different ministries and governmental departments separately. The study

investigated four potential constructs (technical factors, governmental factors, risk factors, and propensity to trust). None of these studies used any of the technological acceptance models available in the literature that could be used in the e-government environment, nor did they consider any critical elements in the Palestinian context. Some context-related factors should be considered in the implementation and use of each scenario of e-government systems. In the Palestinian context, the researcher suggests that using an e-government services portal yields two key benefits that are expected to positively influence individuals' behavioral intentions toward the usage of these services; these two benefits are functional and non-functional. Providing a unified access point to the various e-government services could be considered a functional benefit because it provides an easy, convenient, and free means of accessing e-government services through an online portal that integrates all the offered services from the various government departments. This platform allows citizens to get the necessary services while also lowering their travel demands because they do not need to visit administrative departments. The non-functional benefit that is essential in the Palestinian context, on the other hand, is achieving a higher level of safety for civilians by limiting their exposure to Israeli checkpoints and barriers. When Palestinian citizens need to go from one location to another, they must pass through Israeli barriers, which are military checkpoints put up by the Israeli army where Palestinian citizens are subjected to harassment, searches, insults, arrests, and, in some cases, cold-blooded field executions. The total number of checkpoints is estimated to exceed 600, cutting through the West Bank and interrupting the flow of Palestinian life (PCBS, 2020). Ninety-six of these checkpoints are permanent (fixed), while the others are mobile or, as they are commonly known, "flying checkpoints" that are unknown when, how, or why they are set up in the streets of the West Bank, as their number varies

depending on the political and security situation. Surveillance cameras, military towers, iron gates, manholes, waiting spaces, and specific lanes for examining Palestinian cars and civilians are installed at most of these checkpoints. The need for safety, stress-free travel, and security are important factors in determining individuals' behavioral intentions (Reisinger & Mavondo, 2005). When citizens use the e-government services portal instead of traveling to the various departments, their need to pass through these checkpoints will be reduced, as will their contact with the soldiers at these checkpoints, reducing their exposure to harm or discrimination. As they provide an alternative to unsafe travel, this will help to create a positive attitude toward the e-government services portal, which is likely to positively affect their intent to use these services.

As a result, using a comprehensive framework that considers both functional and non-functional components, the current study seeks to evaluate the factors that may influence the attitudes and behavioral intentions of Palestinian residents towards willingness to use the e-government services portal. This is achieved by combining multiple perspectives which presents a compelling argument for capturing the whole picture regarding the motivators of Palestinian citizens attitudes and behavioral intentions. Namely, an extended version of The Unified Model of Electronic Government Adoption (UMEGA) proposed by Dwivedi et al. (2017) is included and integrated with trust in e-government services and its antecedents, as well as the Unified Access Point variable that caters to individual preferences and aspirations, potentially enhancing users' engagement and intention to use e-government services to capture the technical aspects of the system. In addition, for capturing a psychological aspect of citizens' behavioral intentions, the safety needs component of Maslow's Theory of Motivation is being integrated.

1.2 Problem Statement

While there is evidence to suggest that e-government implementation and use are more successful in developed countries than in most developing countries (UN survey, 2022), low levels of citizen adoption of these services are seen in both developed and developing countries (Xin et al, 2022; Li, 2021; Obaid, 2021). The issues surrounding e-government's use, implementation, and low acceptance rates among the general population pose significant challenges for developing countries (Obaid, 2021; Alghamdi, 2017; Rabaa'i, 2017). Many e-government projects have failed to materialize in less developed countries, leading to substantial setbacks (Kanaan et al., 2023; Hooda et al., 2022), and widening the gap between the developed and developing countries, which creates real research problem (Obaid, 2021; Bojang, 2019). Consequently, it is conceivable that the primary factors encouraging the citizens towards willingness to use the offered technologies in Arab nations may differ from those in industrialized Western nations (Obaid, 2021) that needs further investigation to comprehend.

Anthopoulos et al. (2016) have divided e-government project failures into two broad categories: those that arise during implementation and those that do so soon afterwards. In the first category are the cases where the project is abandoned in the middle of its execution, leading to suboptimal outcomes. The second category includes post-implementation occurrences in which project outputs are rejected by stakeholders or fail to satisfy the expectations of beneficiaries. The latter case is especially problematic since it might cost the organizations delivering e-government services time, money, and credibility. Low citizen acceptance rates have been cited as a major barrier to the successful implementation of large-scale e-government programs in underdeveloped countries (Yavwa & Twinomurinzi, 2018; Rodrigues et al., 2016;

Rana & Dwivedi, 2015). For instance, despite the government of Zambia's efforts to create electronic filing and payment systems, only a small fraction of taxpayers are willing to use them, pointing to adoption barriers (Yavwa & Twinomurinzi, 2018). Over 85% of Jordanians have never utilized any e-government tools (Al-Hujran et al., 2015), and the country suffers a similar problem with low acceptability of e-government services among residents.

With the recent inauguration of the e-government services portal in the West Bank of Palestine, which can be seen as a critical facilitator for societal growth by providing improved services to the public at lower costs, obstacles connected to citizen acceptability may arise. This concern is supported by the previously reported statistics from the Gaza Strip, which indicated variable rates of use among citizens. To avoid failure in the implementation of the e-government project, the Palestinian government will be unable to take strategic initiatives to increase the use of e-government services unless they understand what motivates people to accept these services and formulate the intention to use them (ElKheshin, 2016).

Acceptance and willingness to embrace e-government occur in a variety of socio-political contexts. As a result, it demands careful consideration not only from a technological standpoint, but also from a social and political standpoint because individuals' attitudes and behavioral intents are influenced and formed in response to their surroundings. Unfortunately, most studies on the potential elements that impact individuals' attitudes and intentions to use e-government services have been undertaken in Western countries and few politically stable Arab countries. There are insufficient empirical studies that include not only the technology components of e-government acceptability, but also other factors that may influence attitudes and behavioral intentions of the citizens in conflict regions such as Palestine. Each case of

e-government implementation is distinct in that the actual users' perceptions and needs must be considered in the offered technology, as their adoption of technological innovations is subjective to their attitudes in an organization or country, and these are influenced by economic and social characteristics such as trust, educational level, and networks (Waheduzzaman & Miah, 2015), which may differ across countries. As a result, the ability to leverage acceptance levels is dependent on the compatibility of technical advances with the pre-existing cultural, social, and economic milieu of the society under consideration (Kransberg & Davenport, 1972). If the offered technology helps to provide the study population with a superior quality of life while not adding to their economic burden, and it corresponds to their customs and culture, it enhances the possibility that they will accept it and adopt a good attitude towards using it. As a result, using a comprehensive framework that addresses both technical and nontechnical needs that are important from the study population's point of view and affect their daily lives, it is necessary to identify the potential factors that may affect Palestinians' behavioral intention toward the e-government services' portal. The examination of these characteristics, as well as their influence on citizens' behavioral intentions, would be extremely beneficial and aid in boosting people's acceptance of the supplied services.

1.3 Research Questions

The current study addresses the following seven main research questions:

1. What are the factors that influence citizens' behavioral intention toward using e-government services' portal?
2. What is the influence of UMEGA model variables (performance expectancy, effort expectancy, and social influence) on citizens' attitudes toward using the e-government services' portal?

3. What is the influence of facilitating conditions on effort expectancy?
4. What are the factors that affect citizens' trust in e-government services' portal?
5. Does trust in the e-government portal affect citizens' attitudes and behavioral intentions toward using the e-government services' portal?
6. What is the influence of perceived risk dimensions (financial risk, time loss risk, opportunity cost risk, and technology/device risk) on citizens' attitudes toward using the e-government services' portal?
7. Do the safety needs of the citizens influence their attitudes toward using the e-government services' portal?
8. Does the unified access point influence citizens' attitudes toward using the e-government services' portal?

1.4 Research Objectives

The main objective of this research is to explore and analyze the most important factors that motivate citizens to adopt e-government services. Which will help the authorities in identifying the factors that may enhance or impede the adoption process. To achieve this main objective, the following sub-objectives are formulated:

1. Examining the factors that influence citizens' behavioral intention toward using the e-government services' portal.
2. Investigating the influence of UMEGA model's variables (performance expectancy, effort expectancy, and social influence) on citizens' attitudes toward using the e-government services' portal.
3. Investigating the influence of facilitating conditions of effort expectancy.
4. Investigating the factors influencing citizens' trust in the e-government services' portal.

5. Examining the influence of trust in e-government on citizens' attitudes and behavioral intention toward using e-government services' portal.
6. Examining the influence of perceived risk dimensions (financial risk, time loss risk, opportunity cost risk, and technology/device risk) on citizens' attitudes toward using the e-government services' portal.
7. Investigating the influence of safety needs of the citizens on their attitudes toward using the e-government services' portal.
8. Investigating the influence of the unified access point on citizens' attitudes toward using the e-government services' portal.

1.5 Scope of the study

E-government literature is divided into two main streams of perspectives: interaction and implementation (Moatshe, 2014). Based on the interviews with e-government department officials, the interaction perspective is favored to be investigated because the implementation phase in Palestine is nearly complete, and further examination is unnecessary. Therefore, the present study emphasizes the interactive aspect of e-government, where governments engage with their stakeholders via the internet by utilizing the e-government services portal.

The stakeholders of the e-government include different categories such as business sectors, government departments, citizens, and groups; hence, various e-government domains are available such as G2G, G2B, G2E, G2C and others (Rouibah et al., 2022). Each of these domains utilize and exploit ICT technologies to deliver their services online. The G2G domain facilitates the communication and interaction between government organizations and departments by integrating the internal procedures and systems to establish a central system that is necessary for implementing

successful e-government (Alghamdi, 2017). The Government to Business (G2B) model enables the business to interact with government agencies and conduct complete transactions (E-SPIN, 2017). The Government to Employees (G2E) model enables the government to interact with its employees online by keeping track of employee and personal data. Moreover, it encompasses e-learning and e-payroll, which enable individuals to access educational materials and view/pay their bills, pay stubs, and tax information through online portals (E-SPIN, 201.). And Government to Citizens (G2C) model allows governments to interact with their citizens and providing them with the e-services that can be conducted completely online (Rouibah et al., 2022).

The current research focuses on the G2C domain where the provided e-services are dedicated to the Palestinian citizens living in the West Bank who represent the beneficiaries of these services and the main targeted audience of implementing and utilizing such national-wide systems. The selection of the G2C domain is based on the outcomes of the interviews that the researcher conducted with the employees in the e-government department and government officials, who expressed their interest in analyzing the factors affecting the intentions of citizens in the first place because they have recently launched the services to the citizens, hence, examining the factors that influence citizens behavioral intentions would be beneficial at this stage. By conducting this research, the provider of e-government services can enhance their comprehension of the elements that impact citizens' attitudes and, therefore, their inclination to utilize these services. Particularly in citizens-centric projects such as G2C services, the readiness for e-government services acceptance and ultimately adoption is not limited to technology management, but the actual users' perspectives should be considered for a successful and functional e-government system (Sharma & Panigrahi, 2015). Citizens' opinions, beliefs, and attitudes about these projects are