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E-PAYMENT MODEL FOR THE IRAQI PUBLIC SECTOR: A PASSPORT ISSUANCE E-SYSTEM

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Abstract

The fundamental property of reducing the spread of Coronavirus disease 2020 infection is the reduction of gatherings. Online services are one of the best solutions to assist in preventing this phenomenon. However, electronic payment (e-payment) is a significant problem to fully automate public electronic systems in Iraq and cause corruption and unsatisfied services. The Iraqi public sector has failed in adopting e-payment initiatives many times. This research presents an experimental investigation of consumer/citizen perspectives for common e-payment tools used in Iraq. Then, an application is developed to include the e-payment technique in the issuance system of the Iraqi passport. Data are collected from 470 customers in various passport bureaus in Baghdad. The survey results reveal that 79% of the participants are familiar with using e-voucher as a payment tool whilst disregarding public e-payment initiatives. The results give decision-makers a direction to find a suitable solution to encourage e-payment systems in the Iraqi public sector.

Keywords: Electronic payment, EPOS, e-voucher, Passport application system, Public sector.

1. Introduction

As the Coronavirus disease 2019 (COVID-19) pandemic has been increasingly recognised as a serious, worldwide public health concern, the world is converted towards electronic transformation faster than ever. Most people have started performing their work and carrying out transactions remotely using the Internet. E-commerce has played an essential role in maintaining public health during this unprecedented time [1]. However, the history of the development of e-economics, particularly e-payment, has shown that it is a critical factor in online shopping services [2].

E-payment can be defined as a financial transaction in the form of an online environment that equips tools. It is an electronic connection between banks and clients to manage and control their economic exchanges. It facilitates the transaction process in e-commerce\e-services for consumers [3]. Adopting the e-payment system has significant benefits for payers, payees, e-commerce, banks, organisations and governments. These benefits are illustrated and included by the efficiency and reliability of the e-payment system to enable faster pay-outs, better tracking, transparent transactions, reduced consumed time, cost savings and increased trust among dealers. The development and adoption of technology in the e-payment system tend to shape their perceptions and expectations [2]. E-payment can be performed in various forms: credit card transactions, electronic cash (e-cash), online stored value systems, electronic wallet (e-wallet), digital accumulating balance systems, and digital checking and wireless payment systems. These forms are the most commonly used tools to carry out e-payment [4, 5]. Studies have agreed to the belief that prosperous e-payment innovations concentrate on the apparatus and mechanisms for payment transactions [6].

Meanwhile, several researchers have stated the challenges of utilising e-payment, specifically in three categories: technological, managerial and business-related [7]. Many studies on e-payment system setbacks have mentioned that customer problem is one factor that leads to the unsuccessful employment of different e-payment systems [8]. However, research on adopting e-payment by governments or e-business entrepreneurs' innovations in the developing world is still limited [9]. Moreover, a significant problem with this kind of service in developing countries is business challenges represented as a classic problem in employing technology [9 ,10]. Business challenges refer to customer services, old habits of consumers, lack of understanding and literacy of the new technology service [10].

E-payment systems (EPS), which are utilised in the Middle East, encounter a lack of trust from customers and a low percentage of total transactions because of customer's habits [9-11]. Further empirical studies, which gather qualitative or quantitative data, are needed to evaluate the most popular payment methods for e-commerce transactions in the Arab region, including those who neither have e-payment tools nor bank accounts [12]. Further interest in e-payment has been recently observed in developing countries, as this transaction method can control and reduce the rate of corruption cycle and show transparency in government processes [8, 10].

As a developing country, Iraq lagged in adopting electronic services until 2003 (before the US invasion). From the year 2003 onward, public sector organisations have moved slowly in adopting new trend technologies. The Iraqi passport system is

growing with technology adoption, in which it is a governmental institute that belongs to the ministry of interior affairs. Issuing a passport is almost performed electronically, except for the payment process, which must be achieved by paying cash. Reports mentioned Iraq moving forward to e-payment. According to Ramadan and Aita [9], the average transaction of web payments for Iraq in 2014 was 1.81 USD. However, the government has recently adopted a plan to convert to an e-payment system to reduce handling money by the end of 2020; this plan is proposed mainly due to the infectious COVID-19 pandemic and based on previous strategies.

Moreover, using e-payment can raise some challenges for unfamiliar people with electronic services in Iraq. The literature review discloses that only a few studies have been conducted to identify the best e-payment method that the population can use. Therefore, in-depth studies about EPS customers and the perceived customers in Iraq must be achieved [13]. Investigating the main antecedents, which may facilitate e-payment utilisation, is highly needed in developing countries, such as Iraq. This research focuses on the e-payment of the Iraq public sector from consumer/citizen perspectives. Therefore, researchers in the present study raised a question on how e-payment can succeed in the Iraqi public sector.

This study has two primary aims. Firstly, investigating the best e-payment method based on the Iraq environment. The quantitative investigation results showed that the e-voucher is the most common e-payment tool in Iraq, and all the people who contributed to the survey are familiar with its use. E-voucher payment systems develop an existing check account to be used as a means of payment when shopping online.

One example of a digital check payment system designed by the Internet service PayBy Check [14]. When a consumer pays the merchant on a website, it can perform a digital form with the same form as a paper check sheet. The consumer is asked to fill out the check information. The system then validates and authorises payment by checking the customer account information, such as name, address and bank account status. Subsequently, the system provides the check to the merchant electronically to be used as a medium of exchange merchant with the issuing bank [15, 16]. Secondly, developing software for e-payment compatible with the most common e-payment methods in Iraq was selected through the survey as the first step to transforming e-payment in the public sector. The developed software provides a critical opportunity to advance the understanding of the Iraq environment from the point of view of e-payment, how injected the e-payment tools in Iraqi e-services life cycle.

This paper is divided as follows: Section 2 describes the challenges of adopting e-payment in developing countries. Section 3 specifies the deployment of electronic transactions in Iraq and the plan of the Iraqi government to utilise e-banking in public. Section 4 covers the description of the survey in this research. Section 5 depicts the research methodology. Section 6 shows the results. Section 7 highlights the discussion. Finally, section 8 presents the conclusion.

2. Literature Review

Consumers in the Middle East have not entirely understood the mechanism of e-payments [9]. E-payment is newly introduced in the region and Iraq in particular. It is still facing several challenges. Exploring the literature reveals many challenges in terms of consumer perspectives. Researchers need an accurate explanation for consumer behaviour regarding technology acceptance in this field [16, 17].

In contrast, other factors are considered influential on consumers, such as culture, resistance to change and perceived safety of technology use in the origin country. Therefore, examining consumer behaviour before adopting new technology is necessary [15]. Studies further underline those developing countries must focus on their institutional and social environment because technology in developed countries does not work in developing countries [9, 10].

Other studies have investigated the consumers experiences and expectations of the e-payment system, as it is one of the most influential factors of customer perceived trust; they may adopt different attitudes towards online transaction technology [16]. This situation is a reality even if e-payment systems provide assurances about all aspects of the technical requirements of consumers [18, 19].

Some studies have shown that consumers' perceptions of technology associated with e-payment dominate their decisions to use e-payment [20]. Other kinds of challenges of e-payment are concerned with customer services, old habits of consumers and lack of understanding and literacy of the new service [21].

One of the most critical dependent variables in measuring the success of information systems (IS), such as e-payment, is user satisfaction (US). US is concerned with testing the successful engagement between the IS and its users [22, 23]. The US is used in this study to select e-payment tools. This intention is congruent with [24], who argued that any benefits of intent to use or client satisfaction could be used as a dependent construct or factor of system success.

Habits have been defined as the extent to which people automatically exhibit behaviours because of learning [23], whereas [24] equated habit with automaticity. [25] mentioned that habits are strongly associated with the behaviour frequency that can be performed automatically, whereby the higher the occurrence rate, the more the habits. Different authors had different contexts about e-payment adoption habits; one conceptualised habit as a preceding behaviour.

According to Thiab and Yusoh [26], the repeated performance of behaviour produces habituation, and that stimulus cues can directly activate behaviour. In this study we focus on e-payment tools in Iraq for public sector based on consumer perspectives.

3. Payment Procedure in the Public Sector of Iraq

Scholars advise e-business entrepreneurs in developing countries to understand their local institutional environment [19]. Another advice is not to assume that imported technologies can perform the same way as in the developed world [27]. Developing countries are also called out to promote clear regulations and streamline certification processes to encourage technological innovations, such as e-payment [10]. For example, the Iraqi authorities enacted the rules of electronic transfer of money NO 3 in 2014. These regulations are concerned with e-payment activities, including e-payment instruments, deposit management and cash withdrawal via automated teller machines and selling points.

The first formal discussion and analysis of e-payment by the Iraqi government emerged in 2015. The Iraqi government aims to expand using e-payment, urging all the Iraqi public sector organisations to depend on this system to pay employees' salaries. The government has adopted a plan to convert to the new payment system to reduce handling with cash. By 2020, wages and pensions in governmental

organisations should be paid electronically according to the government plan. This plan comes within the government endeavour to track the world's banking development as e-payment is utilised in many countries worldwide [26]. As a result, most banks in Iraq in the public and private sectors commenced dealing and providing e-payment to their clients.

The two most dominant mobile service providers in Iraq, Zain and Asiacell, began a new electronic transaction gateway. These types of platforms depend on the mobile number as a unique identity for customers. As a result, the publicity of these services is now rising significantly. Both services make the use of e-payment easy for individuals who are unfamiliar with the system or do not have an electronic bank account. Subscribers can make purchases, transfer funds or pay for transferable credit through their handset.

A sufficient number of E-Systems have recently been considered in the Iraqi public sector; for example, the Iraqi passport system, national identification card system, and driver license system. These E-Systems contribute to changing the processes of services provided in the public sector. Nonetheless, with this growth in electronic dealing, the concern about the stability and transparency of provided services is increasing. Manual payment is still considered a gap in the transaction system in Iraq. This gap can lead to non-transparency services and a corrupted cycle. Therefore, this study focuses on establishing a stable e-payment service integrated with Iraq automated systems in the public sector.

4. Case Study

The data collection presents a detailed analysis of the current Iraqi passport mechanism. The mechanism of the available application system used in the passport department to issue the Iraqi passport starts when the application is filled out electronically. The part related to application fees should be performed manually. Firstly, passport applicants should pay by obtaining a check with the specified cost for their application from one of the banks dealing with the passport directorate. Figure 1 illustrates the current procedure of fee payment for passport issuing by applicants.

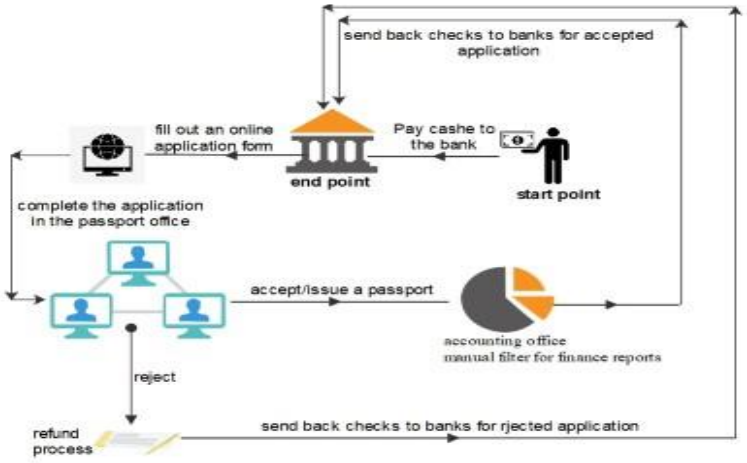

Fig. 1. Current procedure of fee payment for passport issuing.

This method is described with the following encountered problems. First, according to the payment technique for an Iraqi passport online application, after providing personal and residence information, an applicant starts filling out the fields related to check information, which must be answered precisely. Secondly, the application is verified, as no electronic process can match the entered check information with that issued from the indicated bank. However, the checking procedure is performed by sending the check to the bank, and it may be fake because statements can be sold directly by unknown people near passport offices without real covered credit in the bank. When the applicant visits a passport office to submit their application, the responsible officer checks the application. If the application is qualified, then it is sent to the accounting officer. In case an issue arises, the application can be rejected. Therefore, the applicant can claim a refund, and no check is needed. This process is significantly complicated.

The following are several problems related to checks. (1) Mistakes whilst filling out check information online; (2) Mistakes in issuing checks from banks. This kind of issue wastes time and money as citizens should obtain a new check and discard it for the first application; (3) Miscalculated service demand. An additional charge may be considered with the responsible officer in this mistake. The application then goes through central processing to the legal department for checking. Finally, it can pass through the prevention department if any prevention record on the applicant is found. The applicant may lose the payment by checking in all these inaccuracies, and no refund procedure occurs. When the application flows smoothly and no issue is found, the accounting officer deposits the check credit to the bank account of the passport office. Finally, the audit department inspects the payment part in the application and matches the issued number with the bank account's deposit credit. These measures are burdensome, as they depend on classic paperwork. Furthermore, the passport directorate's accounting office has multiple charging fees based on service; for example, the fee for standard service is 25000 IQD, and VIP is 250000 IQD. Thus, managing payment methods is an arduous task and encounters many problems represented by wasting passport fees, including bogus checks. Overall, the E-Systems in the public sector of Iraq works in the same vein. However, we inquired the top management team in the Iraqi passport office why they do not adopt the e-payment method to issue passports when the passport e-system has high technology solutions and considering that the central bank of Iraq urges all institutions in the country to adopt the e-payment method for all government documents issuance. They indicated that no clear policies and rules are implemented to organise the e-payment procedure from the Iraqi government.

5. Research Methodology

This research aims to verify an e-payment technique, which can be utilised in the payment associated with the lodging application for the passport issuance process in Iraq. Empirical studies hold to appropriate solutions that can promote e-payment systems [16]. The research's method is based on a quantitative case study to select the most appropriate e-payment tools according to the population and the environment. This method follows an interpretive approach to propose a mechanism for e-payment related to the e-system of passport application. Then, developing a software programme, which simulates the online passport application system connected with the newly suggested e-payment method. The methodology started with data collected of the current passport payment process from several

resources, such as observations, consultancy reports, official websites and archival documentation Fig. 2.

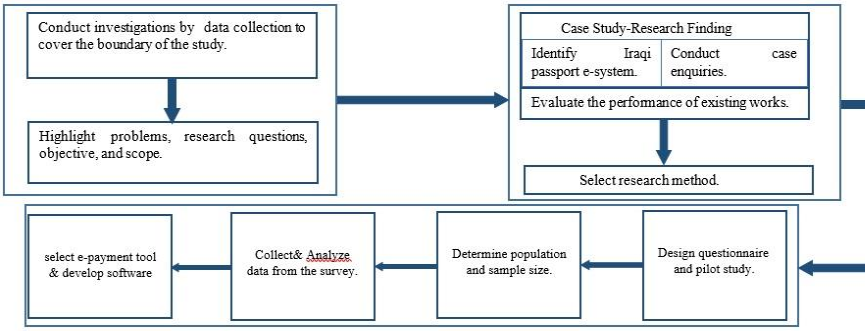

Fig. 2. Research methodology framework.

This research approach allows the Iraqi passport community to review their entirety and permits the authors to put forward a case study, gain their perspectives and interpret their perceptions [26]. In this study, the use of the quantitative approach started by designing a questionnaire. The survey questions were taken from a previous online survey related to e-payment cases from the official website for some institutions from some countries in the same region of Iraq. Several questions are related to the familiarity and preference of using technology and e-payment methods, which may be applied in the passport process. The questionnaire was introduced with defined information. Thus, respondents had the familiarity to answer the tricky questions. The questions were also examined thoroughly by experts to be respondent friendly. No answers and errors in responses were handled before the model analysis.

The members of the target population were classified by service and region. The service type is limited to individuals involved in the passport procedure, whereas the area is limited to the four branches of passport offices in Baghdad. The population consisted of 5,000 candidates recognised according to technical department reports of passport application numbers in the four selected branches of passport offices. The sample size (357) was chosen according to the total population size [27]. Probability sampling was employed for this study. Probability sampling is the best reliable accuracy when a limited amount of data is collected because it reduces fatigue and thus creates minor errors [28]. The duration of the survey timeline went on continuously for five months, starting from May 2020 to Oct 2020. The total distributed number of the survey forms was 900 in four different passport offices in Baghdad. The number of the received survey forms was 610; 140 of them were eliminated because the survey sheets were filled out incorrectly, and the provided information was unrelated to the questions. Therefore, the number of remaining survey documents was 470.

The collected data allowed us to advance our knowledge of a stable e-payment technique to formulate a model and then design a simulation, which shows the suggested producer of the e-payment model to be used in the Iraqi passport application system. The survey included a query about the e-system controlled by the Iraqi government. The results showed that the government adopted no reliable

e-payment in public sector services. This belief is a significant issue in the expanding use of E-Systems. Corruptions spread in some official institutions, and untrusted transactions still adhere to some service provider organisations. For that reason, people do not trust such institutions.

Several other reasons prevent the growth and implementation of EPS, including security, privacy, authentication, transaction integrity, repudiation and confidentiality. These reasons stand as barriers to encouraging people in Iraq to use online transactions. For example, information sharing from an intelligence perspective can be considered a complex issue [29]. Education and awareness are fundamental to enhancing customer confidence to take advantage of internet-based services. An ambiguous relationship exists between e-payment and individuals in Iraq. This study is the first to discuss and analyse e-payment tools in-depth to determine the effects of managerial and business challenges on adopting an e-payment system in the Iraqi public sector.

6. Results

6.1. The implemented survey

The Iraqi passport issuance system has an automated application process. However, the payment procedure is performed manually. To assess the e-payment technique to be used in Iraq, a quantitative approach survey was conducted to select the proper e-payment tool for Iraqi passport's customers. The questionnaire employed three sections: demography, current payment method and strategy with several items to assess the relevance of which e-payment method can be applied in the Iraqi passport system. Tables 1, 2, 3, and 4 analysed the demographic information for the respondents. These tables show that most of the respondents were males with a percentage (78.1%) while females were (21.9%).

Table 1. Gender.

	Male	**Female**
Gender	78.1	21.9

The age level for the respondents for the leading group of age was between 21 to 35 years with percentage (49.6 %), and others were divided (8.5%) for 18 to 20 years age group, (34.5 %) for the age group between 36 to 50 years and (7.4 %) for older 51 years.

Table 2. Age.

	18–20	**21–35**	**36–50**	**≥ 51**
Age	8.5	49.6	34.5	7.4

The education level was classified, the majority of respondents come with bachelor's degree (43.7%) and others range, starting with no certificate (4.5%), primary/secondary school (10.1%), diploma/high school (38.3), postgraduate (3 %), and others (0.4 %). In addition, the career for respondents has been inserted in this study, the highest level of job for respondents who works in the private sector (37.8%), public sector (18.5 %), military sector (15.7 %), student (20.3 %), and others (7.7 %).

Table 3. Academic background

	No certificate	Primary/Secondary school	High school/Diploma	Bachelor	Postgraduate	Others
Education background	4.5	10.1	38.3	43.7	3	0.4

The career for respondents has been inserted in this study, the highest level of job for respondents who works in the private sector (37.8%), public sector (18.5 %), military sector (15.7 %), student (20.3 %), and others (7.7 %).

Table 4. Careers.

	Student	Military sector	Public sector	Private sector	Others
Job title	20.3	15.7	18.5	37.8	7.7

The survey also includes some concepts (e.g. the degree of being familiar with EPS, using EPS services, perspective on security protections, authentication technologies, monitoring and support offered by the EPS and consumer knowledge). Some questionnaire items were close-ended, ordinal-polychromous and ranked on a five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree and 5 = strongly agree). The survey results are presented in the following tables. Table 5 represents different fees for the same service provided by passport offices that participants who bought service's checks from Reliable (Banks) and Unreliable (unknown persons who sell service's checks close to passport offices) source.

Table 5. Show range of check's fees.

	25000 IQD	34000 IQD	35000 IQD	40000 IQD	50000 IQD
How much do people pay for a check?	1.1	25.3	0.4	71.3	1.9

Table 6 represents the percentage of participants who bought service's checks from reliable and unreliable sources. The reasons behind the high rate of participants who bought service's reviews from unreliable sources were the checks acceptable by accounting departments of passport offices and saving time and effort to get checks and broken the routine and bureaucracy to get reviews from reliable sources.

Table 6. How people obtain payment checks for their passport applications (%).

	A reliable source (Banks)	Unreliable source
How do people pay for a check?	26.8	73.2

Table 7 explains the relationship between time and obtaining the payment check from reliable sources (banks). According to this study, (58.9 %) respondents spent 15 minutes to receive a cheque from banks, (39.9 %) for one hour, (4.7 %) for one and half an hour, (4.5 %) for two hours, and (1.1 %) more than two hours. However, when we asked the respondents who spent 15 minutes obtaining checks from banks about this short time, they replied that time did not include the transportation time.

Table 7. Time consumed for issuing a check (%).

	15 minutes	One hour	1.5 hour	Two hours	More than two hours
Time required	58.9	39.9	4.7	4.5	1.1

The questionnaire also included whether participants have e-payment tools or not and know what it is; and if they have e-payment tools that they make e-payment transactions. The results in Table 8 show that the percentage for those who have e-payment tools was 10.4 while who make online shopping was 17.4, which makes some conflict. However, the conflict was excluded when some participants mentioned using e-voucher and did not include it under the e-payment tools.

Table 8. Possessing and using e-payment tools.

	Yes %	No %	Do not know how to get it %	Do not know what it is %	Tried but failed %
Have e-payment tool	10.4	50.9	32.6	6.2	-
Make online shopping	17.4	45.5	8.1	4	24.9

Tables 9, 10, and 11 illustrate the acceptability of the e-payment to participants. According to table 9 (17.7%) of participants liked the current method of payment, (40.4%) go to e-payment, and (41.9) could not decide or accept both methods of payment.

Table 9. People's preference for the payment method for the passport payment fees.

	Current method	E-payment	Undecided
Payment method	17.7	40.4	41.9

Table 10. checked people's opinion of the current payment method for the passport application. (12.8%) Strongly agree, (34.9%) agree, (40.6%) undecided, (6.9%) disagree, and (2.1%) Strongly disagree.

Table 10. acceptability of passport's payment method.

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Current method	12.8	34.9	40.6	9.6	2.1

Table 11 searched for obstacles that prevent people from using e-payment methods. (16.8%) of participants expressed their opinion about the difficulty of using e-payment techniques.(28.9%) they mentioned being untrusted with using e-payment techniques. (43.4%) They did not know about e-payment techniques. (8.7%) used at least once from one of the e-payment techniques and (2.1%) of participants follow the old habit strategy that prefers the current method.

Table 11. Obstacles to using e-payment methods.

Difficult	No trust	Do not know it	Use only one	I prefer the current method
16.8	28.9	43.4	8.7	2.1

Finally, Table 12 included several questions that were answered by yes/no. These questions show the highest e-payment tools people prefer.

Table 12. Results for most popular e-payment tools.

Criterion	Percentage
Have payment tools	60
Have a bank account	18
Have an active bank account	11
Made an online payment	20
Transferred money from one account to another through e-transaction	0
Have an e-wallet	13
Use an e-voucher to top up your mobile phone	79

According to Table 12, Approximately 79% of the survey participants have used to top up their mobile phones using an e-voucher. The statistic is successful as it can identify the applicable e-payment techniques in Iraq based on the massive use of e-voucher with mobile lines. Thus, this study assumes that the favoured e-payment method in Iraq is the e-voucher. This research also shows that implementing the e-voucher as an initial technique for e-payment in the Iraqi passport system leads to the success of this initiative and opens the window for other procedures.

6.2. The proposed application using the e-payment method in the passport system

According to findings from the previous part, we suggest the e-voucher is the most appropriate e-payment technique that can be applied in the Iraqi passport application fee payment. Therefore, a new e-payment structure for the passport application is proposed, as illustrated in Fig. 3. The new system uses an electronic link mechanism through the electronic device called Electronic Point of Sale (EPOS). This device can be distributed to agents and is linked with the agent bank account. The new mechanism of passport issuance starts when an individual buys an e-voucher from an agent based on the service requested. The EPOS checks the balance of the agent bank account, generates an e-voucher number with 14 digits and makes transactions from the agent bank account to the passport account department. A copy of these transactions is sent to the passport e-system. A copy of the receipt is also transferred to the passport accounting department in the passport office. Thus, a clear indication of the number of daily transactions can be available and compared with the number of processed applications. When an individual starts filling out the online passport application form in the payment section, they must provide the 14 digits in the e-voucher. Thus, the passport e-system matches these 14 digits with the available information in the system. If the matching occurs, the online application proceeds and moves to the next step until the passport issuance procedure is finished. Furthermore, if the comparison does not resemble, the entered number is rejected, and the application is suspended until the user enters a correct voucher number. Eventually, the passport e-system sends a daily, weekly, monthly and yearly report about all passport applications issued to the passport accounting department to check the transaction operations.

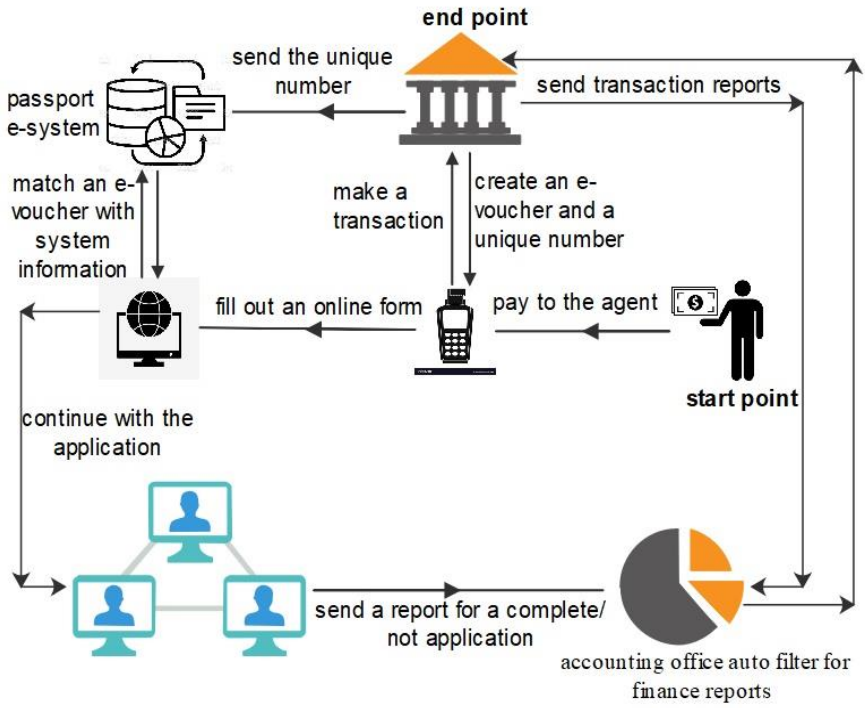

Fig. 3. The proposed model for passport issuance within e-payment.

In the developed application system in this study, three interfaces are connected to the central database server of the system. Firstly, the EPOS interface is the earliest process for the applicant to obtain an e-voucher number. The EPOS interface includes a drop list to select the type of services provided by the Iraqi passport office, as many different services are offered, and they have extra costs. After selecting one option from the drop list, the fee based on service and a serial number is shown. Secondly, the application filling-out process includes the obtained e-voucher number to represent the payment part in the application. Finally, the applicant can fill out the data entry interface directly defined by the online form. It is used to enter the essential information required to apply for an issuance passport, including the service type. The first section is personal information; the second part is the payment information that should be filled out with data generated from the previous stage, as shown in Fig. 3. If the serial number matches the number stored in the database, the process continues; otherwise, the process stops. Finally, the information review or report form is presented. It shows the information of the applicant to be reviewed and checked before printing and applying. The report interface is the third part of the proposed system.

The passport accounting department of the selected passport office uses the interface to investigate the passport application submitted with the cost received on a specified date and the type of service requested. The report interface is illustrated in Fig. 3. The report can be displayed according to the date of the submitted or processed applications. The collected fees for all the sorted applications can be

shown accordingly, as indicated in Fig. 4. Then, the produced report can be printed on dotted or ordinary papers as shown in Fig. 5.

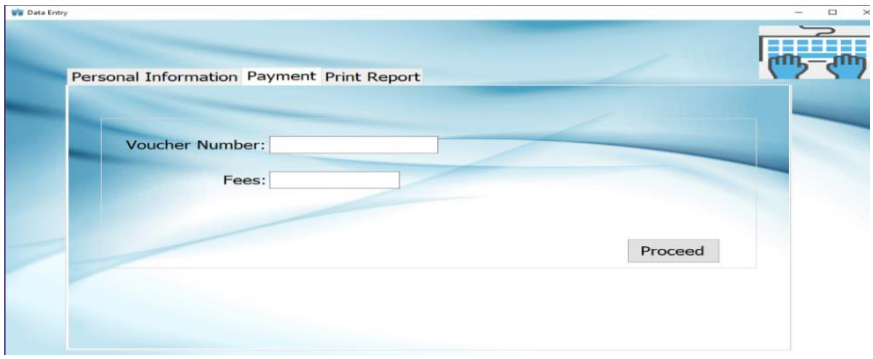

Fig. 4. Payment section.

12/05/2020

#	Service Name	Voucher Number	Fee
1	Issues Normal Passport	010848415367	25000
2	Issues Normal Passport	010848415367	25000
3	Issues Passport as Desired	011328358299	200000
4	Issues Fast Queue	012885188043	250000
5	Issues Fast Queue	012259153068	250000
6	Issues Fast Queue	012259153068	250000
7	Adoption of the Grandfather's Name	014213031116	100000

Number of Passports 7 **Sum of Fees** 1,100,000

Fig. 5. Sample of a printed report.

7. Discussion

A strong relationship between e-payment and electronic services has been reported in the literature regarding automated system service [15]. However, a limited understanding of the usage process of various EPS services makes customers reluctant to implement payments electronically. The habit of using conventional systems is among the major obstacles to using the new EPS. Therefore, the main objective of the research was to specify the best e-payment tool to adopt in the public sector E-Systems of Iraq as the first e-payment initiative.

According to the observation in the private sector, Iraqi customers use the cash on delivery (COD) technique in e-commerce. On the other hand, a significant increase is observed in adopting e-payment in the Iraq public sector and using e-voucher as an e-payment tool. The 'scratch card' is popular because it is a cheap form of ensuring transaction security [17]. However, these outcomes are consistent with those of other studies. They suggest that external variables, such as culture, can be considered to describe further details about customer habits, which can support a model of factors that influence consumer intention to use the e-payment system [15]. Fatonah et al. [1] discussed aspects that were affecting the adoption of e-payment systems. Such characteristics make customers interested in using e-payment systems and the importance of their influence on user trust. See-To et al.

[30] investigated the impacts of different design attributes of e-payment tools on consumers' utility of using e-payment services, directly affecting and increasing the intention to adopt these services. Yaokumah et al. [29] revealed that demographic influence, behavioural factors and perceived satisfaction are necessary for the policy direction and strategy formulation to market and allocate e-payment resources in banks. Barkhordari et al. [16] and Yaokumah et al. [29] argued that according to the cultural and environmental characteristics of the country, destructing the old habits, building new customs of using the current EPS and advertisement and conveying them are among the fundamental approaches towards enhancing EPS adoption.

Halaweh [12] discovered that cultural factors in the Arab region typically do not trust sellers (i.e. e-commerce websites); therefore, they prefer to touch and visually examine goods before paying. COD is found to be a convenient payment method. Explaining all results in e-payment research is challenging. Nevertheless, studies have revealed that the EPOS system, which can be located in agent offices, is the most appropriate way of using e-payment in the passport application, considering the high number of Iraqi people with limited experience of using the Internet, especially the elderly and people who have low educational attainment. However, the government, banks and other specialised organisations should conduct a different programme to educate and draw people's awareness to use a different type of e-payment.

8. Conclusion

The present study was designed to determine consumer behaviour and lack of understanding of technology services on e-payment in the public sector of Iraq. This research was undertaken to suggest an e-payment method to be implemented in the Iraqi passport system. It offered the most popular e-payment technique for the survey participants.

The suggestion was based on the data gathered from a survey conducted in different passport offices in Baghdad. The survey included ordinary Iraqi citizens applying for passports. Also, the passport application's new designated payment system can organise the fee management collected in the passport office. It can also contribute to controlling corruption and mismanagement. The proposed technique will solve the problem of collecting wrong fees of passport service types that commonly appear in the current payment system, the fake bank checks, and stop corruption.

Moreover, the burden on people who become victims of fraud checks from unregistered offices can be decreased. These checks are usually sold to customers near passport offices. Furthermore, E-payment may remove the extra charges like fees for issuing statements in banks.

Moreover, liberation from time and space constraints can be a considerable implementation for public service performance. However, this research has some limitations. Firstly, it only examined four out of 10 passport office branches in the capital state. The total number of passport office branches all over Iraq is 64. Secondly, the suggested system was not tested in the real passport system and was not evaluated by citizen perceptions. Thirdly, the proposed method only predicted one suitable technique for e-payment. Fourthly, this study did not discuss any

theory related to technology acceptance models such TAM, UTAUT or another way. Moreover, the results identified a critical implication.

The Iraqi government implements no reliable policies or rules to accept e-payment in the public sector. Future studies are suggested to involve all the e-payment techniques utilised in Iraq. Its need to discuss various theories related to the technology acceptance model may help understand the Iraqi barriers to adopting the e-payment system. The government is encouraged to endorse policies and rules for e-payment in the country. The media role must also be determined to support the implementation of new technology services.

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