Behavioural Intentions Toward the Continuous Use of E-Payment Among Iraqi Community

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Abstract: This study examines the adoption of e-payment technology as a key component of digital transformation in the Iraqi economy. The Unified Theory of Acceptance and Use of Technology (UTAUT) is employed to analyse the determinants of users' behavioural intentions toward the continuous use of cashless payment systems. Data were collected using a simple random sampling approach, with 200 questionnaires distributed via WhatsApp to government employees holding bank accounts in Iraq. A total of 195 valid responses (98%) were obtained and used for empirical analysis. The results indicate a moderate level of behavioural intention to use e-payment systems. The core UTAUT constructs - performance expectancy, effort expectancy, social influence, and facilitating conditions - demonstrate a statistically significant but limited influence on users' intention to continue using e-payment technologies. Furthermore, users exhibit concerns regarding data privacy, cybersecurity risks, and insufficient trust in digital platforms, which negatively affect adoption. These findings highlight several structural barriers to digital transformation in Iraq, including low financial inclusion, limited digital financial literacy, and underdeveloped technological infrastructure. Accordingly, enhancing user adoption of e-payment systems requires improvements in digital infrastructure, strengthening cybersecurity frameworks, and increasing public awareness of the benefits of digital financial services.

1 INTRODUCTION

New technology has gained importance for business sectors worldwide to adopt a new business model, which requires re-evaluating their business strategies and adopting digital applications to process the flow of information across many digital platforms and social media. It is worth noting here that the Corona crisis in 2020 constituted a transforming point towards digitalization in the work of various companies as a result of disrupting all direct sales channels and finding alternatives to communicate with the consumer audience via the Internet (emails and communication networks), which helped the growth and expansion of e-commerce across the global economy [1]. The growth and expansion of digital businesses resulted from the perceived benefits provided by new technology in communicating with the community across a hypothetical digital environment to market goods and services and settle payments digitally easily and quickly. Digital business increases productivity, reduces prices, saves communication efforts, and sustains customer relationships to sustain operations and survival [2]. Besides that, enhancing the elements of superiority and competition in the markets locally and internationally [3].

Based on the above, this study examines a critical issue in the Iraqi economy: the Iraqi government's adoption of digital transformation processes in the business sector and obligating the Iraqi consumer to deal with cashless transactions via Visa cards. After more than a year of the electronic payment experiment, the current study attempts to diagnose and check the user feedback toward this experiment by exploring the behavioral intentions of members of Iraqi society in accepting digital payment tools and continuing to use them. The digital payment experience in the Iraqi economy faces significant challenges, manifested in the digital technology infrastructure, limited financial culture, and the low rate of financial inclusion for a large segment of Iraqi society. Therefore, the problem is evident in how to adapt and generate suitable digital businesses for the various segments of the community to promote the digital payment culture and achieve digital transformation in Iraq. In light of this problem, the goal of the current study came to explore the

behavioral intentions to adopt digital technology by the Iraqi consumer by answering the following central question: "Does the Iraqi consumer (employees) have the intention to continue the use of digital applications and tools in settling cashless transactions through electronic payment technology?" After answering the question, the study contributes to achieving the following:

- To explore the new directions in the Iraqi community.
- To analyse the Iraqi awareness of the importance of e-payment technology.
- To diagnose the difficulties and challenges faced by users of e-payment.
- To display how study results, contribute to improving new directions of Iraqi's behavioural intentions.

2 LITERATURE REVIEW

In the post-pandemic period, the adoption of digital technologies for cashless transactions has significantly increased among consumers. This trend has occurred alongside a transformation in marketing approaches, where traditional face-to-face strategies have been progressively replaced by digitally driven interactions. As a result, consumer purchasing intentions have been notably influenced by the growing integration of digital tools.

Digital payment systems refer to electronic platforms and technologies that enable the transfer of monetary value between parties through digital channels. Continuous advancements in this domain are gradually reducing the reliance on physical cash by offering faster, more convenient, and cost-efficient alternatives. A wide range of instruments supports these transactions, including bank cards, mobile banking applications, digital wallets, unified payment interfaces, USSD services, instant payment systems, and real-time gross settlement mechanisms.

Within the expanding ecosystem of e-commerce, digital payment technologies have become a critical component of the consumer experience. Their role extends beyond simple transactions, contributing to efficiency, accessibility, and overall user satisfaction.

The adoption of digital payment solutions is largely shaped by user perceptions, particularly regarding ease of use and perceived usefulness. However, these factors alone do not fully explain user behavior. External elements, such as environmental conditions and contextual influences, also play a significant role in shaping the acceptance and continued use of digital payment technologies.

Moreover, digital payment systems influence financial decision-making by guiding users toward specific financial technologies that align with their preferences and behavioral patterns. These systems also enhance the purchasing process by increasing transaction speed and reinforcing perceptions of security and convenience.

Extensive research in information and communication technologies has explored the factors influencing technology acceptance, leading to the development of various theoretical models such as the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Diffusion of Innovation Theory (IDT), and others. Given the conceptual overlap among these frameworks, the Unified Theory of Acceptance and Use of Technology (UTAUT) was introduced to integrate their key elements into a comprehensive model. UTAUT identifies four primary determinants: performance expectancy, effort expectancy, social influence, and facilitating conditions.

In this study, the UTAUT framework is adopted to examine the key drivers influencing the acceptance of digital payment technologies and their impact on users' intentions to continue utilizing cashless payment methods. Table 1 presents the operational definitions and measurement indicators associated with each construct.

Hypothesis 1: Performance expectancy, effort expectancy, social influence, and facilitating conditions significantly influence users' behavioral intentions to adopt digital payment systems.

3 BEHAVIORAL INTENTIONS AND E-PAYMENT

Within a theory of planned behaviour (TPB), behavioural intentions refer to the relative strength of a person's desire to perform a particular behaviour. Therefore, the idea of an intention to use is related to the integration of desire and the actual behaviour of individuals towards a specific thing. Within the technology concept, behavioural intention means an individual's tendency and readiness to use a specific technology [16], such as electronic payment technology. Besides that, an individual's behavioural intentions to use electronic payment technology depend on the digital financial culture of the community (Skills, Knowledge, and capabilities to manage), which positively affects consumers' intention to use online payment. The perceived usefulness of technology influences the intention to

use and accept electronic payment technology. It describes how people believe a particular technology can improve productivity and performance [10].

In addition, the ability to use and secure digital technology impacts individuals' behavioural intentions towards using digital technology in payment. On the other hand, personal features and expected challenges will affect the users and their actual behaviour and use of digital technology. With the increasing importance of electronic and digital payment in commercial, financial transactions, and individual shopping, and with the development of cybersecurity threats, technology acceptance factors are considered essential. Therefore, when the government strives to spread the digital payment culture and acceptance of digital business, it must provide users with knowledge about safe policies, laws, regulations, and other practices that protect those who use electronic payment systems. Then, behavioural intentions will be stronger and closer to spreading the financial culture and leading to digital transformation within a safe and sound environment for using digital business technologies.

Hypothesis 2: There is no significant effect of acceptance factors and technology on the client's behavioural intention to continue using e-payment.

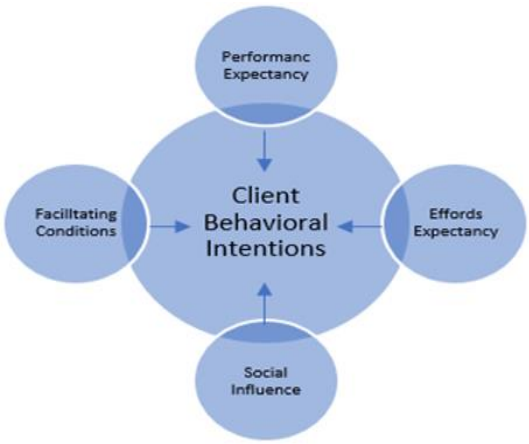

Figure 1: Study model.

Table 1: Operational definitions and measurements of UTAUT model.

Construct	Description	Measurement Item	Code
Performance Expectancy (PE)	Perceived advantages and outcomes of using digital payment systems	Using digital payment services improves the accuracy of handling everyday financial and commercial transactions.	Q1
		Digital payment solutions enable faster and more reliable transaction processing.	Q2
		These services contribute to better utilization of financial resources, such as savings and discounts, in business activities.	Q3
Effort Expectancy (EE)	Perceived ease of learning and using digital payment technologies	I expect digital payment technologies to be simple to learn and operate.	Q4
		Interacting with digital payment applications is clear and easy to understand.	Q5
		Acquiring the skills needed to use digital payment tools requires minimal effort.	Q6
Social Influence (SI)	Impact of opinions and behaviors of important others	Public attitudes toward digital payments affect my decision to use cashless methods.	Q7
		Recommendations from friends and colleagues influence my adoption of digital payment services.	Q8
		The views of people I trust shape my perception of digital payment technologies.	Q9
Facilitating Conditions (FC)	Availability of technical and organizational support	Digital payment systems are compatible with the devices and resources I use.	Q10
		Financial institutions provide adequate support for understanding and using digital payment methods.	Q11
		The existing infrastructure effectively supports error handling during payment processes.	Q12
Behavioral Intentions (BI)	Willingness to continue using digital payment systems	My understanding of digital payment tools motivates me to continue using them.	Q13
		A secure and reliable digital environment encourages me to adopt e-payment solutions.	Q14
		Continued usage depends on having sufficient resources to support digital payment technologies.	Q15

3.1 Study Model

The research model is developed based on the Unified Theory of Acceptance and Use of Technology (UTAUT). This theoretical framework explains users' acceptance of electronic technologies in conducting financial transactions at both local and international levels. The model integrates and simplifies more than 30 variables derived from earlier technology acceptance theories into four core constructs - performance expectancy, effort expectancy, social influence, and facilitating conditions - which are capable of explaining a significant proportion of individuals' behavioural intentions to adopt and use technology in business and financial contexts [16].

Moreover, the model is characterised by its flexibility and applicability across different environments and fields. Figure 1 illustrates the structure of the proposed research model, where performance expectancy, effort expectancy, social influence, and facilitating conditions represent the independent variables. The dependent variable reflects the behavioural intentions of consumers to adopt and continuously use e-payment technology for conducting cashless transactions through digital tools and applications.

3.2 Population and Study Sample

The study focuses on clients of banks listed on the Iraq Stock Exchange operating within Baghdad Governorate. These banks generally provide a range of digital financial services, including point-of-sale systems, internet banking, and mobile banking applications. The target respondents consist of government employees who hold bank accounts and use electronic debit card payment systems.

Due to the difficulty of accurately identifying and limiting the population size, the study adopted a simple random sampling approach based on the rule of a minimum of 100 observations [17].

3.3 Data Collection

A structured questionnaire was developed using a five-point Likert scale (Table 2). It was distributed electronically to 200 respondents via the WhatsApp, which is widely used in Iraq, in order to ensure accessibility and facilitate the response process.

The questionnaire was reviewed by academic experts and professionals in the fields of information technology and cybersecurity to ensure its validity and appropriateness. Based on their feedback, revisions were made to improve clarity and content relevance.

After a data collection period of three weeks, 195 valid responses were obtained, representing a response rate of 98%, while 5 responses were excluded due to incompleteness or inconsistency. This sample size satisfies the requirement for a minimum number of observations. Table 3 presents the descriptive statistics of the sample, indicating that most respondents hold bachelor's or postgraduate degrees, which enhances the reliability of the responses due to their ability to understand and accurately complete the questionnaire.

3.4 Validity and Reliability

Table 4 presents the results of the validity and reliability tests conducted using Cronbach's Alpha (CA) and the Variance Inflation Factor (VIF). The Cronbach's Alpha values exceed the acceptable threshold of 0.70, indicating a high level of internal consistency among the questionnaire items [18].

Table 2: Five-point Likert scale limits for determining the level of response.

	Five-point Likert scale limits for determining the level of response				
Limited Average	5-4.20	4.19-3.40	3.39-2.60	2.59-1.8	1.79-1
Description	Strongly Agree	Agree	Partly	Disagree	Strongly Disagree
Note: Likert scale has been divided into five equal level to ensure neutrality in describing the strength and weakness of the response on each variable					

Table 3: The descriptive statistics for the research sample.

Gender			Age			Educational Level		
Male	157	%81	20-34	65	%33	Bachelor	120	%62
Female	41	%19	Above 35	130	%67	Postgraduate	75	%38
Total	195		Total	195		Total	195	

Table 4: Validity and reliability of the questionnaire.

Variables	CA	Tolerance	VIF
Performance Expectancy	0.889	0.280	3.650
Effort Expectancy	0.850	0.340	3.146
Social Influence	0.857	0.380	2.468
Facilitating Conditions	0.860	0.340	2.832
Behavioural Intention	0. 840	-	-

In addition, the tolerance values are greater than 0.2, and all VIF values fall within acceptable limits, confirming the absence of multicollinearity among the independent variables. These results demonstrate that the measurement instrument is both reliable and suitable for further statistical analysis.

4 HYPOTHESES TEST DISCUSSION

The study employed the SPSS software to statistically process the collected data and analyze the results based on the mean and standard deviation of the Likert scale responses in order to test the first hypothesis (Table 5). In addition, multiple regression analysis was used to examine the second hypothesis and assess the suitability of the proposed research model (Table 6).

Table 5 presents the arithmetic mean values of respondents' answers, which were used as a criterion (based on Table 3) to evaluate the first hypothesis. The results indicate that respondents moderately agree that e-payment technology can facilitate the process of conducting cashless transactions, as the mean values fall within the acceptable range of the Likert scale. This finding reflects a convergence in participants' behavioural intentions toward using digital payment tools and applications. Although respondents recognize the benefits of e-payment technology, their overall attitudes remain moderate, suggesting that these technologies have not yet fully met user expectations in terms of usability and supporting infrastructure.

Furthermore, the results show that e-payment technology positively influences individuals' behavioural intentions to use digital applications for conducting transactions and enables faster and easier payment processes. However, lower levels of agreement were observed for items Q6 and Q10, which relate to the compatibility and adequacy of current digital infrastructure and applications in supporting efficient transaction execution. Based on these findings, the first hypothesis is accepted.

Table 6 presents the results of the regression analysis. The t-test indicates a positive and statistically significant relationship between the technology acceptance variables and behavioural intentions to continue using e-payment systems at the 5% significance level. The Durbin–Watson statistic falls within the acceptable range, confirming the absence of autocorrelation in the regression model. Furthermore, the coefficient of determination (R^2 = 0.45) indicates that the independent variables explain 45% of the variance in behavioural intentions. Accordingly, the alternative hypothesis of the second research hypothesis is accepted, confirming that technology acceptance factors have a significant effect on users' intentions to continue using e-payment systems.

Table 5: Mean standard deviations and factor loadings.

Constructs Model	Scale	Mean	SD	Level	Factor Loading
Performance Expectancy (PE)	Q1	3.16	1.321	moderate	0.750
	Q2	2.854	1.200	moderate	0.830
	Q3	2.620	1.360	moderate	0.730
Effort Expectancy (EE)	Q4	2.520	1.510	moderate	0.837
	Q5	2.670	1.660	moderate	0.886
	Q6	2.800	2.832	moderate	0.860
Social Influence (SI)	Q7	2.600	0.972	moderate	0.810
	Q8	2.650	1.114	moderate	0.750
	Q9	2.700	1.169	moderate	0.773
Facilitating Conditions (FC)	Q10	2.820	1.167	moderate	0.868
	Q11	2.980	1.141	moderate	0.849
	Q12	2.820	1.193	moderate	0.845
Behavioural Intention (BI)	Q13	2.730	1.113	moderate	0.879
	Q14	2.430	0.960	Low	0.859
	Q15	2.530	1.210	Low	0.757

Table 6: Test second hypothesis.

	Independent Variables			
	PE	EE	SI	FC
Iraqi Behavioural Intentions	β	0.757	0.68	0.763	0.69
	SD	0.03	0.036	0.30	0.035
	T-test	25.1	18.7	25.87	18.89
	Sig,	0.000	0.000	0.000	0.000
	Result	Accepted	Accepted	Accepted	Accepted
	R^2	D.W	Sig.	Model Description	
	0.45	1.21	0.000	Sig. and Fit Model	

5 CONCLUSIONS

The results of this study confirm the existence of a statistically significant relationship between the main constructs of the Unified Theory of Acceptance and Use of Technology (UTAUT) - namely performance expectancy, effort expectancy, social influence, and facilitating conditions - and the behavioural intentions of Iraqi users toward the continuous use of electronic payment systems. The regression analysis demonstrated that these factors collectively explain approximately 45% of the variance in behavioural intention ($R^2 = 0.45$), indicating a moderate explanatory power of the proposed model.

In addition, all independent variables were found to have a positive and statistically significant effect on behavioural intention at the 5% significance level. This indicates that users' perceptions of usefulness, ease of use, social influence, and the availability of supporting infrastructure play an important role in shaping their willingness to adopt and continue using e-payment technologies.

However, despite the statistical significance of these relationships, the results of the Likert scale analysis revealed that the overall level of user acceptance remains moderate. This suggests that the practical adoption and continuous use of electronic payment systems in Iraq are still at a developing stage. The findings indicate that users continue to have concerns related to security, privacy, and the reliability of digital financial systems, which negatively affects their level of trust.

Based on these findings, it can be concluded that although e-payment technology has the potential to support digital transformation in Iraq, its widespread adoption requires significant improvements in digital infrastructure, cybersecurity measures, and user awareness. Enhancing legal frameworks, strengthening data protection mechanisms, and increasing financial literacy through educational and training programs are essential steps to promote user confidence and encourage the continuous use of digital payment systems.

6 STUDY LIMITATIONS AND FUTURE DIRECTIONS

This study is subject to several limitations that should be considered when interpreting the results. First, the research was conducted within the specific context of the Iraqi economy, which is characterized by unique challenges such as limited financial inclusion, underdeveloped digital infrastructure, and economic instability. These factors may limit the generalizability of the findings to other contexts.

Second, the study relied on a relatively homogeneous sample consisting mainly of government employees with bank accounts, which may not fully represent all segments of Iraqi society, particularly individuals without access to formal financial services. In addition, the use of a questionnaire-based approach may introduce response bias, as the data are based on self-reported perceptions.

Third, the study employed a cross-sectional design, which captures behavioural intentions at a single point in time and does not account for changes in user behaviour over time as digital technologies evolve.

Future research should aim to expand the sample to include a more diverse population, particularly individuals from rural areas and those with limited access to financial services. Longitudinal studies are also recommended to better understand how behavioural intentions toward e-payment systems develop over time. Furthermore, future studies may incorporate additional variables such as trust, perceived risk, cybersecurity awareness, and government policies to provide a more comprehensive understanding of the factors influencing the adoption of digital payment technologies.

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