EKOMBIS Sains
Jurnal Ekonomi, Keuangan dan Bisnis **Volume 09, Nomor 01, Maret 2024**

ADOPTION OF FINANCIAL TECHNOLOGY (FINTECH) SERVICES FOR IRAQI BANK USERS: AN EXTENSION OF TECHNOLOGY ACCEPTANCE MODEL

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Abstrak

Penelitian ini bertujuan untuk mengeksplorasi faktor-faktor penentu adopsi Teknologi Finansial di kalangan pengguna bank Irak. Berdasarkan Technology Acceptance Model, penelitian ini mengintegrasikan Perceived Economic Wellbeing dan Literasi Digital dengan konstruk TAM tradisional termasuk Persepsi Kemudahan Penggunaan, Persepsi Kegunaan, dan Norma Subyektif. Data dikumpulkan melalui metodologi survei yang melibatkan nasabah perbankan di Irak. Sebanyak 280 nasabah bank berkontribusi dalam penelitian ini, dengan tingkat pengembalian sebesar 93,33%. Hipotesis diuji dengan menggunakan Structural Equation Modelling (SEM). Temuan menunjukkan bahwa persepsi kegunaan, kemudahan penggunaan, norma subjektif, dan literasi digital berperan penting dalam adopsi layanan Tekfin. Di sisi lain, kesejahteraan ekonomi tidak memiliki dampak yang signifikan. Hal ini mengimplikasikan bahwa literasi digital dan pengaruh sosial memiliki pengaruh yang signifikan terhadap penerimaan FinTech oleh pengguna di negara berkembang. Studi ini akan bermanfaat bagi pembuat kebijakan dan manajemen lembaga keuangan yang bertujuan untuk meningkatkan adopsi FinTech melalui kebijakan yang bertujuan untuk meningkatkan persepsi pengguna tentang kegunaan dan kemudahan penggunaan serta mengembangkan literasi digital pengguna. Studi ini berkontribusi pada literatur yang ada pada literatur terbatas tentang adopsi FinTech di dunia Arab, khususnya Irak.

Kata kunci: Adopsi, Tekfin, Irak, TAM.

Abstract

The study aims to explore the determinants of Financial Technology adoption among Iraqi bank users. Building on the Technology Acceptance Model, the study integrates Perceived Economic Wellbeing and Digital Literacy with traditional TAM constructs including Perceived Ease of Use, Perceived Usefulness, and Subjective Norms. The data were collected through a survey methodology which included banking clients in Iraq. A total of 280 bank customers contributed to the research, yielding a response rate of 93.33%. Hypotheses were tested using Structural Equation Modelling (SEM). The findings suggest that perceived usefulness, ease of use, subjective norms, and digital literacy are instrumental in adoption FinTech services. On the other hand, economic well-being has no significant impact. This implies that digital literacy and social influence exert a significant effect on FinTech acceptance by users in developing countries. The study will be useful for policy makers and the management of financial institutions aiming to enhance FinTech adoption through policies aimed to improve users' perceptions of usefulness and ease-of-use as well as to develop users' digital literacy. The study contributes to the existing literature limited literature on FinTech adoption in the Arab world, particularly Iraq

Keywords: *Adoption, FinTech, Iraq, TAM.*

INTRODUCTION

Financial technology (FinTech) is transforming the face of the global financial architecture with novel products and disruptive solutions, as it's improving financial inclusion and simplifying financial transactions. The world FinTech market in

2021 was valued at almost USD 7.5 trillion, is forecasted to grow at (CAGR) of 26.89 per cent from 2021 to 2028 (Statista, 2020). Despite its growing importance, FinTech still lacks an agreed-upon definition. It refers, according to (Milian et al., 2019) to the application of any technology and mobile platforms to facilitate financial transactions. For (Stewart & Jürjens, 2018), FinTech is: mobile financial technology that leverages technological platforms and mobile devices in order to receive notifications on current transactions on bank accounts or get credit alerts via push notifications.

Existing studies on FinTech acceptance points the importance of perceived ease of use and perceived usefulness (Albayati et al., 2020). However, social influences and external factors such as financial cost, perceived enjoyment and regulatory support and trust are also highlighted as major contributors to FinTech acceptance (Albayati et al., 2020; Gbongli et al., 2019a) . This is further reinforced by earlier studies which suggest that personality traits such as optimism and innovativeness are important factors influencing perceptions of usefulness and ease of use of FinTech applications that, subsequently affect user acceptance (Walczuch et al., 2007) . In particular, mobile-based financial services, which are heavily marketed in developing countries, show that ease of use of FinTech, when offered in a mobile-based format is by far the most significant factor influencing consumers' attitudes (Gbongli et al., 2019b).

Despite of the infancy stage of FinTech in Iraq and that few banks have already implemented FinTech platform, the Iraqi Central Bank has started in early 2022 to support Iraqi banks to give FinTech platform to their customers. Although FinTech adoption has been studied regularly in developed countries, there are not enough studies on FinTech adoption in the developing regions, especially in the Arab world and Iraq (Lukonga, 2021). Furthermore, this study will introduce the variables of Perceived Economic Wellbeing (PEWB) and Digital Literacy (DL) into Technology Acceptance Model (TAM) framework along with the factors of subjective norms (SN), perceived usefulness (PU), and perceived ease of use (PEOU).

This study aims to improve the current knowledge on FinTech services, which are currently operated or can be operated by banks. That is why the current research focus more on the attitude to FinTech in Iraq. Consequently, this research is a valuable scientific tool for those bank policymakers who could adopt novel options thoroughly and for practitioners, managers and academics alike. Besides, the empirical research programme is beneficial to improve knowledge of essential variables affecting the adoption of FinTech.

Research questions

The following research questions will help us to reach the research objectives.

1. Does perceived ease of use has a direct impact on financial technology adoption.
2. Does perceived usefulness has a direct impact on financial technology adoption.
3. Does subjective norms have a direct impact on financial technology adoption.
4. Does perceived economic wellbeing have a direct impact on financial technology adoption.
5. Does digital literacy Levels have a direct impact on financial technology adoption.

Literature Review

Technology acceptance model

The determination of an individual's inclination to use FinTech services necessitates the presence of theoretical support. The aim of this study is to expand (TAM) by examining the many aspects that impact financial technology services. (Davis, 1989a) introduced the Technology

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

Acceptance Model (TAM) as a modification of the notion of reasoned action and perceived usefulness. The Technology Acceptance paradigm (TAM), a cognitive model specifically within the field of information systems, bears similarities to the idea of reasoned action theory(Fishbein & Ajzen, 1977). According to (Davis, 1989a) , the (TAM) is superior to previous models due to the inclusion of supplementary factors, namely perceived ease of use and perceived usefulness, which have an impact on behavior and eventually shape usage intention. Consequently, this intention might manifest as either negative or positive. Subsequently, Davis (1989) advocated the deletion of the attitude construct from the original (TAM). Hence, the prediction of behavioral intention may be accurately determined by relying just on two fundamental constructs: perceived ease of use and perceived usefulness. Within the framework of the TAM, which was developed by Davis in 1989, it has been noticed that the perceived ease of use and perceived usefulness are indicative of the intents of an individual. Moreover, (TAM) is generally recognized by academics as a conceptual framework that can effectively explain complex human behavior and enable a more thorough analysis of the factors that impact such behavior in relation to system adoption. Similarly, the Technology acceptability Model (TAM) has shown effectiveness in fostering various types of user acceptability in the field of information technology. Based on the provided statement, many modifications were implemented to the original Technology Acceptance Model (TAM), with some of these modifications being suggested by (Venkatesh et al., 2003a). This study investigates the effectiveness of (TAM) in predicting the adoption of FinTech. The author has made further advancements to the original TAM framework.

Development of a Hypothesis and Theoretical Framework

Perceived ease of use

A modified version of perceived complexity, perceived ease of use is the basis used by the Technology Acceptance Model to evaluate individual's views on technology. (Davis, 1989f). One usability feature thought to negatively affect perceived ease of use is complexity. The relationship between perceived ease of use and behavioral intention has been demonstrated empirically. For instance, studies on mobile library applications (Rafique et al., 2020) social media use (Rauniar et al., 2014); telemedicine services (Kamal et al., 2020) ; and the effects of the Zoom app on language learners (Alfadda & Mahdi, 2021). Based on the previous studies, it can be hypothesized that as follows:

H1: The. Perceived ease of use directly influences the adoption of FinTech.

Perceived usefulness

Fundamental to the Technology Acceptance Model, perceived usefulness directly affects users' decisions to adopt new technologies, such as FinTech. According to Davis's Technology Acceptance Model, perceived usefulness is how much a person believes that a certain technology will make their performance easier or more efficient. Research has consistently demonstrated a positive relationship, in many contexts, including the FinTech industry, between the perceived utility and the adoption of technology. One such is the study of (Venkatesh et al., 2003b) for instance found that individuals' intentions to adopt electronic banking, a subset of FinTech, were significantly influenced by how valuable they thought the technology was . Furthermore, a study conducted by (Chen et al., 2019) demonstrates a compelling correlation: the perceived usefulness of mobile payment systems significantly influence consumer tendencies towards embracing this particular aspect of financial

technology. Drawing upon prior research, the following hypothesis emerges:
H2: The Perceived usefulness directly influences the adoption of FinTech.

Subjective norms

SN, defined as the perceived social pressure to perform or not perform a behaviour, are another significant component that influences individual's response to and use of FinTech (Belanchei et al., 2019; Firmansyah et al., 2022). According to the TAM, (SN) can directly impact users' attitudes toward the adoption of new technology via their perceptions of important others' expectations of them. This is supported by empirical evidence of the impact of adopters' perceptions that important and influential individuals in their social circles (ie, family, friends and co-workers) expect them to use the technology, leading individuals to adopt FinTech solutions. For instance, a study has found that (SN) positively predict the behavioural intention to use m-banking among consumers in divergent cultural contexts (Teo et al., 2012). Similar research found that peer and societal influences significantly affect FinTech application adoption in developing countries, where technology usage is largely influenced by social endorsement (Amnas et al., 2023). Hence, integrating the notion of (SN) into the TAM offers a systematic empirical understanding of the drivers of FinTech adoption. Thus,
H3: The subjective norms directly influence the adoption of FinTech

Perceived Economic wellbeing

Perceived Economic wellbeing (PEWB) refers to the economic status of an individual, which is determined by comparing their current financial circumstances to their past situation and to the financial situations of other individuals that hold significance to them. PEWB is a subjective concept that represents an individual's perception of their future and is closely related to their sense of financial contentment(Gasiorowska, 2014; Verma & Sinha, 2018). PEWB is demonstrated by one's income level, possession of funds for essential needs, capacity to manage financial crises, amount of debt, level of savings, funds for future requirements, and overall economic and financial stability(Verma & Sinha, 2018). Individuals with positive attitudes towards their PEWB tend to use FinTech as they think that these tools help them in managing and controlling high personal finances (Pebley, 2002) . PEWB is also influenced by contextual factors such as ethnicity, education and region (Addai & Pokimica, 2010). For example, Individuals with higher educational degrees and those who live in urban areas tend to perceive their PEWB on a more positive note and are likely adopters of FinTech. Accordingly, the following hypothesis can be developed:
H4: The Economic wellbeing directly influences the adoption of FinTech.

Digital Literacy

Digital literacy defined as skill and knowledge needed to communicate and interact with the digital technology. It's one of the main factors influencing the way financial technology (FinTech) adoption in Iraq. According to (TAM), the perceived ease of use and usefulness are two important factors in decision technology acceptance (Davis, 1989b). Research shows that increased digital literacy is associated with better understanding and use of digital financial services (Van Deursen & Van Dijk, 2014). With the rapid development of digital infrastructure, digital literacy has become increasingly important in the Iraqi context. A study conducted by (Oliveira et al., 2016) showed that digital literacy in developing countries affects not only the initial uptake or adoption of digital banking services but also their continued use. Therefore, high digital literacy is expected to have a direct impact on FinTech acceptance in Iraq, as Individuals with high digital literacy are more likely to master digital technologies and view FinTech services positively and

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

easily, which will increase the likelihood of adoption. Based on previous research, the following hypotheses can be made:
H5: The Digital Literacy Levels directly influences the adoption of FinTech.

Proposed research model

This investigation adopts a nuanced framework geared towards evaluating the acceptance of FinTech services. Our theoretical construct has been meticulously formulated by integrating adapted elements from (Davis, 1989c) Technology Acceptance Model, with additional constructs of Economic wellbeing and the variable of Digital literacy, as delineated in Figure 1. Historically, TAM has found extensive application within the domain of Information Communication Technology, as evidenced by Shih and Fang's work in 2004. In selecting an appropriate theoretical lens to analyze behavioral intentions, this study has preferred TAM over other models such as the "(Theory of Reasoned Action TRA), the (Theory of Planned Behavior -TPB), and the (Decomposed Theory of Planned Behavior)". A comparative analysis reveals that although TAM, TPB, and DTPB all originate from TRA, the latter two models were dismissed due to their inadequate explanations concerning the processes through which individuals come to believe in and engage with specific behaviors (Taylor & Todd, 1995).As previously mentioned, the foundation of this research is firmly planted in the technology acceptance model. Here, the model undergoes strategic enhancements with the original TAM constructs (PEOU) and (PU) being augmented by the inclusion of the of self-efficacy, Economic stability, and Digital Literacy. The extended TAM model can be seen in Figure 1.

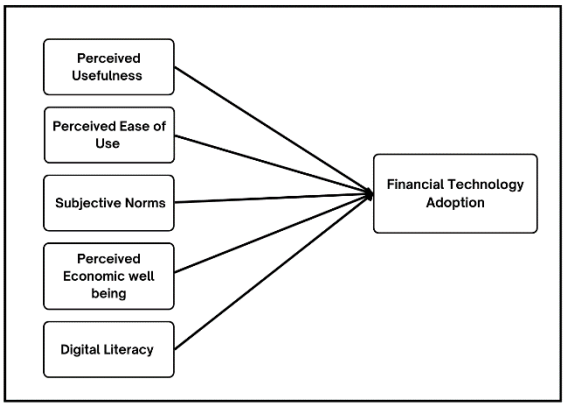

Fig. 1. Research Framework

RESEARCH METHODS

The data for this study was collected from customers of banks situated in Iraq. A grand total of 300 questionnaires were distributed, out of which 291 were returned in their entirety, and 11 questionnaires were incomplete. Thus, out of the total, only 280 were deemed suitable for the study, resulting in a response rate of 93.33%. Therefore, according to previous research, the response rate is sufficient for the analysis. A convenience sampling method was used to select a representative sample from the population. The demographic information of the respondents are presented in Table I.

Measures

In order to find out about the constructs that was used, the questionnaire used was adapted from a review of the previous literature. The questionnaire was revised by three Academic researcher with backgrounds in survey design. All the items used for the questionnaire were adapted from the previous studies. Likert-type scale-of 1-5 was use for most of the items. A pilot test was conduct at the earliest stage of actual fieldworks to identify the strength and the weakness of the responses and contents of the questionnaire viewed from the perspectives of the customers in Iraq. Also, the measurement of the average time which taking by the respondent to complete the questionnaire was taken. The outcome of the test were used to conduct improvement in

the questionnaire view from the contents, words, formats and layouts. The questionnaire's final items are shown in table 1.

Data analysis

In this study, reliability and validity were assessed using Confirrmatory Factor Analysis (CFA), and hypotheses were tested via .Structural Equation Modelling with (Amos version 26) software. SEM was chosen for its suitability in providing a confirmatory, covariance-based approach, as recommended by (Hair et al., 2019). This method offers the advantage of simultaneously evaluating both the measurement model, which defines the relationships between observed variables and their underlying latent constructs, and the structural model, which outlines the causal relationships among the latent constructs.

Demographic information of the participants

The results in table 2 show that the study sample consisted of 280 participants consisted of (49.3% females) and (50.7% males). The age distribution was 52.1% between 20-30 years, 37.9% between 31-40 years, and 10.0% were 41 years and above. In terms of educational level, 64.6% were undergraduates, while 35.4% were postgraduates. Regarding job status, 46.1% were employed full-time, and 53.9% were employed part-time.

Table1: Measures

Variable	Code	Items	References
Perceived Usefulness (PU)	PU1	To what extent would you say that FinTech would improve your ability to perform financial tasks?	(Davis, 1989d)
	PU2	Do you like using FinTech to process your financial transactions?	
	PU3	To what extent do you agree that FinTech makes financial services more accessible and useful for you?	
Perceived Ease of Use (PEOU)	PEOU1	To what extent do you find that you can learn to use FinTech applications easily?	(Amin et al., 2014)
	PEOU2	Do you find FinTech interfaces user-friendly?	
	PEOU3	To what extent can you handle using FinTech platforms as they are today?	
"Subjective Norms (SN)"	SN 1	Most of those close to me would view the using of FinTech as a sensible choice.	(Gopi & Ramayah, 2007)
	SN 2	Those important to me would likely believe that I ought to utilize FinTech.	
	SN 3	My family, would perceive the application of FinTech as a positive move.	
	SN4	My family, would suggest that I should engage with FinTech	
Perceived Economic wellbeing (PEWB)	PEWB 1	Using FinTech is affordable, and I'm not troubled about the 1% commission charged.	(Dzogbenuku et al., 2022)
	PEWB 2	FinTech has helped improve my financial situation.	
	PEWB 3	I consistently have a sense of satisfaction from FinTech services.	
Digital Literacy (DL)	DL1	How proficient are you in using digital tools and technologies in general?	(Bawden, 2008; Eshet, 2004; Ng, 2012)
	DL2	How good are you at feeling your way through and using FinTech applications?	

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

	DL3	How knowledgeable are you about the latest FinTech available in the market?	
Financial Technology Acceptance (FTA)	FTA1	When conducting transactions, I prefer to use Fintech payment services rather than cash?	(Marakarkandy et al., 2017; Patel & Patel, 2018; Venkatesh et al., 2003c)
	FTA2	Very soon, I plan to use the Fintech service.	
	FTA3	I'll continue using Fintech service as a user.	

Table 2. Demographic information of the participants

Variables	Characteristics	Frequency	Percentage
Gender	Male	142	50.7
	Female	138	49.3
Age	20-30 years	146	52.1
	31-40 years	106	37.9
	41 years and above	28	10.0
Educational level	Under-graduate	181	64.6
	Post-graduate	99	35.4
Job status	Full-time	129	46.1
	Part-time	151	53.9

RESULTS

Descriptive statistics

Table 3 presents the descriptive statistics and correlations among the constructs: Perceived Usefulness, Perceived Ease of Use, Subjective Norms, Economic wellbeing, Digital Literacy, and Financial Technology Acceptance. The mean scores for these constructs range from 3.410 to 3.694, with standard deviations between 0.641 and 0.772. Perceived Usefulness has the highest mean (3.534, SD = 0.660), while Digital Literacy has the lowest (3.510, SD = 0.641). Significant correlations at the 0.01 level (2-tailed) are observed among all constructs. Perceived Usefulness shows strong correlations with Perceived Ease of Use ($r = .578$, $p<0.01$), Subjective Norms ($r = .689$, $p<0.01$), Perceived Economic wellbeing ($r = .634$, $p<0.01$), Digital Literacy ($r = .513$, $p<0.01$), and Financial Technology Acceptance ($r = .483$, $p<0.01$). Perceived Ease of Use is significantly correlated with Subjective Norms ($r = .599$, $p<0.01$), Perceived Economic wellbeing ($r = .556$, $p<0.01$), Digital Literacy ($r = .482$, $p<0.01$), and Financial Technology Acceptance ($r = .511$, $p<0.01$). Subjective Norms are significantly correlated with Perceived Economic wellbeing ($r = .583$, $p<0.01$), Digital Literacy ($r = .460$, $p<0.01$), and Financial Technology Acceptance ($r = .410$, $p<0.01$). Perceived Economic wellbeing shows significant correlations with Digital Literacy ($r = .471$, $p<0.01$) and Financial Technology Acceptance ($r = .443$, $p<0.01$). Lastly, Digital Literacy is significantly correlated with Financial Technology Acceptance ($r = .503$, $p<0.01$).

Measurement model

To evaluate the adequacy of a model's fit, it is essential to examine the goodness-of-fit (GOF) indices. These indices measure how closely the observed covariance matrix aligns with the estimated covariance matrix (Hair et al., 2019) . The more similar these matrices are, the better the model fit. Table 4 presents the results, demonstrating a favorable model fit with the following indices: CMIN/df = 2.091, RMSEA = 0.060, CFI = 0.911, TLI = 0.901, IFI = 0.910, and NFI = 0.936. These values indicate that the model has a good fit with the data. As a result, the measurement model shows strong construct validity and reliability.

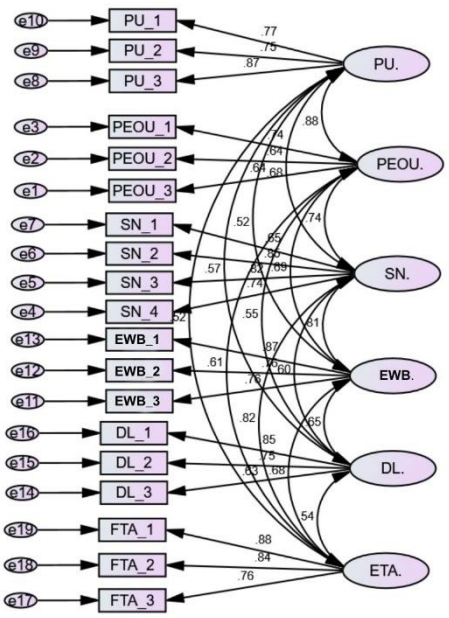

Figure 2. Measurement model

CFA results: reliability and validity

The measurement items were rigorously tested for reliability and validity through confirmatory factor analysis (CFA). Validity was assessed using discriminant and convergent validity, while reliability was evaluated with Cronbach's alpha coefficient, as shown in Table 5. The results indicate that Cronbach's alpha coefficients for all constructs range from 0.720 to 0.822, exceeding the threshold of 0.70 which is recommended by (Hair et al., 2019). This demonstrates the internal consistency of all measurement items. Convergent validity was assessed using three key indicators: factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). The study found that all item loadings were above the cutoff value of 0.50 and statistically significant ($p<0.05$). Composite Reliability (CR) values ranged from 0.751 to 0.805 for all constructs, surpassing the recommended threshold of 0.70 which is suggested by (Hair et al., 2019) . Average Variance Extracted (AVE) values ranged from 0.503 to 0.550 for all constructs, exceeding the suggested threshold of 0.50 which is suggested by (Hair et al., 2019). In summary, based on these comprehensive assessments, the study confirms the good reliability and validity of the measurement items. This study employed discriminant validity as proposed by (Fornell & Larcker, 1981) to ensure that variables which theoretically should not be highly correlated indeed are not. According to their criteria, discriminant validity is confirmed when the square root of the Average Variance Extracted (AVE) for a construct is greater than the correlation values between all constructs. Table 6 shows that the square root of the AVE scores for all variables surpasses the inter-construct correlations, thus confirming the discriminant validity of the constructs.

Table 3. Descriptive statistics

Constructs	Mean	SD	Perceived Usefulness	Perceived Ease of Use	Subjective Norms	Economic Wellbeing	Digital Literacy	Financial Technology Acceptance
Perceived Usefulness (PU)	3.534	0.660	1					
Perceived Ease of Use (PEOU)	3.410	0.734	.578**	1				
Subjective Norms (SN)	3.581	0.607	0.689**	.599**	1			
Perceived Economic Wellbeing (PEWB)	3.694	0.772	.634**	.556**	.583**	1		

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

Digital Literacy (DL)	3.510	0.641	.513**	.482**	.460**	.471**	1	
Financial Technology Acceptance (FTA)	3.570	0.657	.483**	.511**	.410**	.443**	.503**	1

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

Table 4. Goodness-of-fit- indices

Goodness-of-fit indices	χ2/df	RMSEA	CFI	TLI	IFI	NFI
Acceptable level (Hair et al., 2019)	<5.0	<0.08	≥.90	≥.90	≥.90	≥.90
Final Model	2.091	0.060	0.911	0.901	0.910	0.936

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

Table 5. Reliability and validity

Constructs	Measurement Items	Factor Loading	a	CR	AVE	P value
Perceived Usefulness (PU)	PU_1	0.771	0.822	0.805	0.550	0.000
	PU_2	0.757				0.000
	PU_3	0.870				0.000
Perceived Ease of Use (PEOU)	PEOU_1	0.741	0.789	0.778	0.531	0.000
	PEOU_2	0.641				0.000
	PEOU_3	0.684				0.000
“Subjective Norms (SN)”	SN_1	0.684	0.781	0.780	0.517	0.000
	SN_2	0.749				0.000
	SN_3	0.719				0.000
	SN_4	0.710				0.000
Perceived Economic Wellbeing PEWB	PEWB _1	0.829	0.776	0.764	0.509	0.000
	PEWB _2	0.701				0.000
	PEWB _3	0.712				0.000
Digital Literacy (DL)	DL_1	0.741	0.741	0.766	0.504	0.000
	DL_2	0.601				0.000
	DL_3	0.640				0.000
Financial Technology Acceptance (FTA)	FTA_1	0.88	0.720	0.751	0.503	0.000
	FTA_2	0.841				0.000
	FTA_3	0.767				0.000

Table 6. Discriminant validity

Constructs	Perceived Usefulness	Perceived Ease of Use	Subjective Norms	Economic Wellbeing	Digital Literacy	Financial Technology Acceptance
Perceived Usefulness	**0.741**					
Perceived Ease of Use	0.630**	**0.728**				

Subjective Norms	0.531**	0.604**	**0.719**			
Perceived Economic wellbeing	0.613**	0.617**	0.502**	**0.713**		
Digital Literacy	0.510**	0.410**	0.547**	0.620	**0.709**	
Financial Technology Acceptance	0.478**	0.540**	0.600**	0.537**	0.575**	**0.709**

Hypothesises test

The research utilized (.SEM) to examine. the proposed model. The results presented in table (7) reveal that several factors significantly influence financial technology acceptance. Specifically, perceived usefulness ($\beta = 0.413$, $p < 0.001$) and perceived ease of use ($\beta = 0.410$, $p < 0.001$) are strongly supported as key drivers of technology acceptance, suggesting that users are more likely to embrace financial technology if they find it useful and easy to use. Therefore, H1 and H2 are supported. Additionally, subjective norms ($\beta = 0.315$, $p < 0.001$) and digital literacy ($\beta = 0.357$, $p < 0.001$) also significantly impact acceptance, indicating that social influence and the user's ability to navigate digital platforms are crucial factors. Thus, H3 and H5 are supported. In contrast, the Perceived economic wellbeing ($\beta = 0.017$, $p = 0.140$) doesn't have a significant effect, meaning that Perceived economic wellbeing do not play a substantial role in influencing the acceptance of financial technology in this context. Therefore, H4 is not supported.

Table 7. SEM results

No	Paths	Beta Coeffi-cient	p value	Results
H1	Perceived Usefulness → Financial Technology Acceptance	0.413	0.000	Supported
H2	Perceived Ease of Use → Financial Technology Acceptance	0.410	0.000	Supported
H3	Subjective Norms→ Financial Technology Acceptance	0.315	0.000	Supported
H4	Perceived Economic wellbeing → Financial Technology Acceptance	0.017	0.140	Not supported
H5	Digital Literacy→ Financial Technology Acceptance	0.357	0.000	Supported

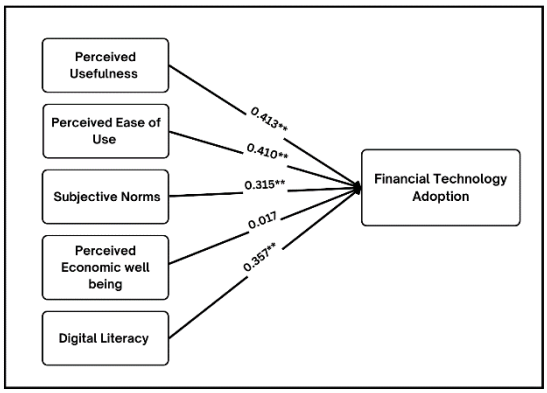

Figure 3: The SEM model analysis

Discussion

The results of this study provide a full understanding to the regulators about what drives customers towards adopting financial technology (FinTech) services in Iraqi banking, using an enhanced view of (TAM). This study supports many of the traditional TAM constructs (i.e., PU, PEOU and SN) but also integrates new factors such as

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

PEWBs in order to elaborate beyond these existing influences on acceptance and use by incorporating broader range of variables including digital literacy. PU and PEOU. The findings of this study support earlier research that (PEOU) and (PU) are underpin variables for FinTech adoption. These results validate the core consumption theory introduced by (Davis, 1989e) that suggest PEOU and PU are major determinants on behavioural intentions. The empirical evidence for this study is that Iraqi citizens will adopt FinTech services if they perceive them efficient and easy to use. This is consistent, with previous research in different contexts e.g., electronic banking(Carranza et al., 2021; Roy et al., 2017; Shaikh & Karjaluoto, 2015) mobile payment systems(Apanasevic et al., 2016; Arvidsson, 2014; Duane et al., 2014; Kim et al., 2010). Based on the most studies, (SN) have a significant effect to users' behavior when adopting FinTech by nature of social influence. This is consistent with the findings by (Contreras Pinochet et al., 2019; Wang et al., 2019) showed that the social pressure from proximate contacts (e.g., family and friends) by itself influence adoption of FinTech. This suggests that in Iraq societal and Familial approval is very significant determinants of FinTech adoption. This insight is crucial for policymakers and FinTech firms looking to increase adoption, suggesting that the strategies should include social approval with community driven promotion. (EWB) was expected to have a significant impact on FinTech adoption however the results show that it did not as anticipated assumed. In contrast to other works that have found a relationship between economic status and technology use (Sinha & Verma, 2020), The absence of a substantial relationship in the Iraqi context might be FinTech services are still Infancy stage and the potential for economic constraints to being overshadowed by other factors, such as digital literacy and social influences. The adoption of FinTech has been shown to correlate with (DL), highlighting the important it is for the user's ability regarding using digital tools. This finding is supported by the study of (Ashoer et al., 2024; Long et al., 2023; Ullah et al., 2022), continue to highlight that (DL) is also critical for users in being able to access the use of FinTech services as well. Educational programs aimed at improving the (DL) of a population might represent a strategic priority towards boosting wider adoption of FinTech in our Iraqi context.

CONCLUSION

The study offers a new and comprehensive model for understanding FinTech adoption in Iraq that includes technology acceptance constructs also (PEWB) and digital literacy within the traditional TAM framework. The results prove that PU, PEO, SN and DL are essential in shaping the adoption process of FinTech services. In practice, though PEWB matter in theory they did not seem to have a big effect. These implications can guide policy makers, financial institutions and FinTech developers in Iraq as well as those in the developing world. Efforts to enhance uptake of FinTech should consider improving PEOU, PU, SN and capacity building in DL. However, realizing the harsh reality that economic Situation did not play a big role in such context could assist us in forming more individual-specific and solid policies or marketing.

REFERENCES

Addai, I., & Pokimica, J. (2010). Ethnicity and economic well-being: The case of Ghana. Social Indicators Research, 99, 487–510.

Albayati, H., Kim, S. K., & Rho, J. J. (2020). Accepting financial transactions using blockchain technology and cryptocurrency: A customer perspective approach. Technology in Society, 62, 101320.

Alfadda, H. A., & Mahdi, H. S. (2021). Measuring students' use of zoom application in language course based on the technology acceptance model (TAM). Journal of Psycholinguistic Research, 50(4), 883–900.

Amin, H., Abdul-Rahman, A., Ramayah, T., Supinah, R., & Mohd-Aris, M. (2014). Determinants of online waqf acceptance: An empirical investigation. The Electronic Journal of Information Systems in Developing Countries, 60(1), 1–18.

Amnas, M. B., Selvam, M., Raja, M., Santhoshkumar, S., & Parayitam, S. (2023). Understanding the Determinants of FinTech Adoption: Integrating UTAUT2 with Trust Theoretic Model. Journal of Risk and Financial Management, 16(12), 505.

Apanasevic, T., Markendahl, J., & Arvidsson, N. (2016). Stakeholders' expectations of mobile payment in retail: lessons from Sweden. International Journal of Bank Marketing, 34(1), 37–61.

Arvidsson, N. (2014). Consumer attitudes on mobile payment services–results from a proof of concept test. International Journal of Bank Marketing, 32(2), 150–170.

Ashoer, M., Jebarajakirthy, C., Lim, X.-J., Mas' ud, M., & Sahabuddin, Z. A. (2024). Mobile fintech, digital financial inclusion, and gender gap at the bottom of the pyramid: An extension of mobile technology acceptance model. Procedia Computer Science, 234, 1253–1260.

Bawden, D. (2008). Origins and concepts of digital literacy. Digital Literacies: Concepts, Policies and Practices, 30(2008), 17–32.

Belanche, D., Casaló, L. V, & Flavián, C. (2019). Artificial Intelligence in FinTech: understanding robo-advisors adoption among customers. Industrial Management & Data Systems, 119(7), 1411–1430.

Carranza, R., Díaz, E., Sánchez-Camacho, C., & Martín-Consuegra, D. (2021). e-Banking adoption: an opportunity for customer value co-creation. Frontiers in Psychology, 11, 621248.

Chen, W.-C., Chen, C.-W., & Chen, W.-K. (2019). Drivers of mobile payment acceptance in China: An empirical investigation. Information, 10(12), 384.

Contreras Pinochet, L. H., Diogo, G. T., Lopes, E. L., Herrero, E., & Bueno, R. L. P. (2019). Propensity of contracting loans services from FinTech's in Brazil. International Journal of Bank Marketing, 37(5), 1190–1214.

Davis, F. D. (1989a). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 319–340.

Davis, F. D. (1989b). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 319–340.

Davis, F. D. (1989c). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 319–340.

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

Davis, F. D. (1989d). Perceived usefulness, perceived ease of use, and user acceptance of information technology. Management Information Systems Quarterly, 13(3), 319–340.

Davis, F. D. (1989e). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 319–340.

Davis, F. D. (1989f). Technology acceptance model: TAM. Al-Suqri, MN, Al-Aufi, AS: Information Seeking Behavior and Technology Adoption, 205, 219.

Duane, A., O'Reilly, P., & Andreev, P. (2014). Realising M-Payments: modelling consumers' willingness to M-pay using Smart Phones. Behaviour & Information Technology, 33(4), 318–334.

Dzogbenuku, R. K., Amoako, G. K., Kumi, D. K., & Bonsu, G. A. (2022). Digital payments and financial wellbeing of the rural poor: The moderating role of age and gender. Journal of International Consumer Marketing, 34(2), 113–136.

Eshet, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. Journal of Educational Multimedia and Hypermedia, 13(1), 93–106.

Firmansyah, E. A., Masri, M., Anshari, M., & Besar, M. H. A. (2022). Factors affecting fintech adoption: a systematic literature review. FinTech, 2(1), 21–33.

Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research.

Gasiorowska, A. (2014). The relationship between objective and subjective wealth is moderated by financial control and mediated by money anxiety. Journal of Economic Psychology, 43, 64–74.

Gbongli, K., Xu, Y., & Amedjonekou, K. M. (2019a). Extended technology acceptance model to predict mobile-based money acceptance and sustainability: A multi-analytical structural equation modeling and neural network approach. Sustainability, 11(13), 3639.

Gbongli, K., Xu, Y., & Amedjonekou, K. M. (2019b). Extended technology acceptance model to predict mobile-based money acceptance and sustainability: A multi-analytical structural equation modeling and neural network approach. Sustainability, 11(13), 3639.

Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. International Journal of Emerging Markets, 2(4), 348–360.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24.

Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of

telemedicine services through an extended technology acceptance model (TAM). Technology in Society, 60, 101212.

Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. Computers in Human Behavior, 26(3), 310–322.

Long, T. Q., Morgan, P. J., & Yoshino, N. (2023). Financial literacy, behavioral traits, and ePayment adoption and usage in Japan. Financial Innovation, 9(1), 101.

Lukonga, I. (2021). Fintech and the real economy: Lessons from the Middle East, North Africa, Afghanistan, and Pakistan (MENAP) region. The Palgrave Handbook of Fintech and Blockchain, 187–214.

Marakarkandy, B., Yajnik, N., & Dasgupta, C. (2017). Enabling internet banking adoption: An empirical examination with an augmented technology acceptance model (TAM). Journal of Enterprise Information Management, 30(2), 263–294.

Milian, E. Z., Spinola, M. de M., & de Carvalho, M. M. (2019). Fintechs: A literature review and research agenda. Electronic Commerce Research and Applications, 34, 100833.

Ng, W. (2012). Can we teach digital natives digital literacy? Computers & Education, 59(3), 1065–1078.

Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. Computers in Human Behavior, 61, 404–414.

Patel, K. J., & Patel, H. J. (2018). Adoption of internet banking services in Gujarat: An extension of TAM with perceived security and social influence. International Journal of Bank Marketing, 36(1), 147–169.

Pebley, A. R. (2002). Ethnicity, Language, and Economic Well-Being in Rural Guatemala.

Rafique, H., Almagrabi, A. O., Shamim, A., Anwar, F., & Bashir, A. K. (2020). Investigating the acceptance of mobile library applications with an extended technology acceptance model (TAM). Computers & Education, 145, 103732.

Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. Journal of Enterprise Information Management, 27(1), 6–30.

Roy, S. K., Balaji, M. S., Kesharwani, A., & Sekhon, H. (2017). Predicting Internet banking adoption in India: A perceived risk perspective. Journal of Strategic Marketing, 25(5–6), 418–438.

Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. Telematics and Informatics, 32(1), 129–142.

Sinha, N., & Verma, P. (2020). Adoption of ict enabled agricultural extension services through perceived economic wellbeing: Ict and pewb. International Journal of Information and

E-ISSN : 2502 - 1796
P-ISSN : 2527 - 4198

Communication Technology Education (IJICTE), 16(3), 30–41.

Statista. (2020). Asia Leading the Cashless Revolution. https://www.statista.com/chart/20618/cashless-payments-across-the-world/

Stewart, H., & Jürjens, J. (2018). Data security and consumer trust in FinTech innovation in Germany. Information & Computer Security, 26(1), 109–128.

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. Information Systems Research, 6(2), 144–176.

Teo, A., Tan, G. W., Cheah, C., Ooi, K., & Yew, K. (2012). Can the demographic and subjective norms influence the adoption of mobile banking? International Journal of Mobile Communications, 10(6), 578–597.

Ullah, S., Kiani, U. S., Raza, B., & Mustafa, A. (2022). Consumers' intention to adopt m-payment/m-banking: the role of their financial skills and digital literacy. Frontiers in Psychology, 13, 873708.

Van Deursen, A. J. A. M., & Van Dijk, J. A. G. M. (2014). The digital divide shifts to differences in usage. New Media & Society, 16(3), 507–526.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003a). User acceptance of information technology: Toward a unified view. MIS Quarterly, 425–478.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003b). User acceptance of information technology: Toward a unified view. MIS Quarterly, 425–478.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003c). User acceptance of information technology: Toward a unified view. MIS Quarterly, 425–478.

Verma, P., & Sinha, N. (2018). Integrating perceived economic wellbeing to technology acceptance model: The case of mobile based agricultural extension service. Technological Forecasting and Social Change, 126, 207–216.

Walczuch, R., Lemmink, J., & Streukens, S. (2007). The effect of service employees' technology readiness on technology acceptance. Information & Management, 44(2), 206–215.

Wang, Z., Guan, Z., Hou, F., Li, B., & Zhou, W. (2019). What determines customers' continuance intention of FinTech? Evidence from YuEbao. Industrial Management & Data Systems, 119(8), 1625–1637.