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# Factors Influencing Consumer Adoption of Digital-Only Banks in the UK.

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## Abstract

This study aims to develop and empirically test a conceptual model based on Unified Technology Adoption and Usage Theory-2 to understand factors influencing the adoption of digital-only banking services in the UK. The proposed model integrates fintech-specific themes such as perceived risk, trust, security, environmental concerns, micro-investing opportunities, financial incentives, and cryptocurrency access with established UTAUT-2 technology adoption theory framework. Hypotheses were formulated to assess relationships between these constructs and behavioural intention to adoption. Structural equation modelling with SMART PLS-4 software was used to test the relationship between independent variables with the dependant variable. Data from 391 respondents, collected via an online survey using convenience and purposive sampling, was analysed. Findings indicate that behavioural intention towards adopting digital-only banks is significantly influenced by environmental concerns, performance expectancy, perceived risk, hedonic motivation, security, trust, social influence, and micro-investing opportunities. The model's explanatory power  $R^2$  stood at 31%, suggesting moderate predictive strength. The study provides insights into the adoption drivers for digital-only banks in the UK, offering practical implications for fintech managers, developers, and policymakers aiming to foster growth and innovation in the sector. These findings contribute to filling a research gap in digital-only bank adoption.

**Keywords** UTAUT-2, PLS-SEM, Digital-only bank adoption, Behavioural intention to Adopt Technology, Bank Apps

## 1. Introduction

Technology advancements have created emerging digital technologies that have disrupted longstanding industries, leading to systemic changes in markets, business models and consumer behaviours. The banking industry has not been exempted, evolving to facilitate new business models that provide high-speed and excellent customer experience through innovative technology-centred digital bank platforms. (Vives, 2019). This technology driven trend in the financial sector has resulted in the development of digital-only banks, a new business model of fully virtual banks without individual physical branches, providing banking 24/7, where all banking activities operate through the internet or mobile applications. “Neobanks” is an umbrella term that is often used for these digital-only banks, virtual banks or challenger banks. These fully virtual banking operations have transformed banking from the traditional, limited access brick and mortar model, and in the process changing how individuals experience the banking service, from limited access to 24/7 lifestyle-based access and subsequently, their financial service consumption and financial habits. Consumers’ increasing need for ease in banking and the ubiquitous access to smartphones is anticipated to be a significant factor in digital only bank growth (GrandViewResearch, 2022) which is expected to grow from 53.4% CAGR to its 2021 valuation of USD 47.39 billion in 2022–2030 worldwide. In 2021, according to World Bank (2022), 54% of people worldwide who have bank accounts have not yet used digital systems. A study in Brazil by Pushel, Afonso, Mazzon & Hernandez (2010) found that the banking industry was experiencing a shift of traditional banking customers as smartphones, tablets and apps are being increasingly used in consumers’ everyday lives for work, shopping, entertainment and financial transactions and the future of banking is constantly being defined by this cloud-based technology.

Due to the fintech industry being relatively new, coupled with the speed of developments and relentless innovations in these fintech services, there is scant literature on the subject and Ryu (2018) suggests that research covering this research area has not tested factors influencing adoption of financial technology adequately. More so from an individual consumers’ internal and external influences covering more current issues of climate change and fintech driven financial services consumption themes such as trust, security, digital assets, environmental concerns, financial promotions, micro investing opportunities and individual risk perceptions, also looking into digital only banks. Insight into this will not only help develop better services for better customer outcomes, inform developers of customer motivations but will also help in highlighting the development of potential stability risks to the industry. This study aims to investigate the factors that drive the adoption of this new internet-only banking service in the U.K. Following the Kalifa report, the UK intends to maintain and grow its leading position as the global financial hub by leading advancements in financial technology. Understanding and enhancing adoption therefore is key to the success of the Kalifa report. This study fills a gap into the early days of research on digital-only bank adoption. This background has resulted in the formulation of the research question:

RQ. What are the key factors driving the adoption of digital-only banks in the UK?

To answer the above question, the study proposes a conceptual model based on the UTAUT-2 theory integrated with fintech driven themes of security trust, perceived risk, environmental concerns, financial incentives and promotions, access to cryptocurrency and digital assets and micro investing opportunities to assess behavioural intention to adoption of digital-only banks.

Research Objectives:

- To identify key factors that determine the adoption of digital-only bank services in the UK.
- Analyse the extent to which drivers in technological, behavioural and environmental perspectives are influencing consumers to accept and use digital-only bank services.
- Establish possible differences in consumer adoption of digital-only bank services based on the customers' demographic characteristics of age, gender, and income as the moderating variables in the framework.
- To get a better understanding of the users' perception and beliefs about adoption of digital-only services, thereby highlighting practical attributes that fintech bank developers need to consider and areas of monitoring to ensure proliferation, sustainability and stability of the financial system.

This study fills a gap in the literature on digital-only banks adoption by integrating newer fintech driven themes that address gaps from previous studies as well as suggested further development of applying theories in a retail banking context, identifying factors that lead to continued use of digital only banks.

## **2. Literature Review**

Technology adoption has been widely explored and studied in the last couple of decades. Fintech has become an emerging area of research and technology adoption has become a popular area of study among researchers in a quest to continually understand the various factors that influence individual acceptance and use of emerging technology (Hughes, 2021). Previous research has examined the behavioural intention of adopting new technologies as they were emerging and evolving. Digital-only bank services is a new novel technology that offers a virtual platform-based application to deliver banking services. The UTAUT2 model is widely researched and accepted theory, helpful in predicting consumer behavioural intention towards adoption of new technologies. There are studies that have looked into the adoption Internet banking (Yousafzai, 2012 ), Mobile banking (Zhou, Lu, & Wang, 2010), Online banking (Baabdullah, Alalwan, Rana, Kizgin, & Patil, 2019) e-banking (Alalwan, Dwivedi, & Rana, 2017)), digital banking (Singh & Srivastava, 2020) which are all forms of digital banking. However, no study, as far as the researcher is aware, has been attempted on the adoption of digital-only banks in the UK, with the same combination of constructs being tested in this study.

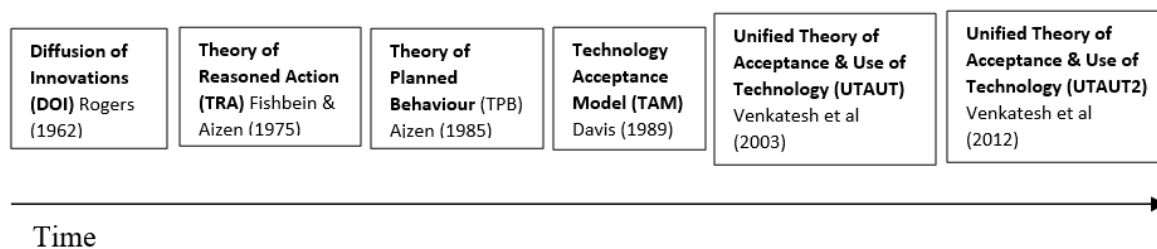


Figure 1 Technology Adoption Theory Development Timeline

The Unified Theory of Acceptance and use of Technology (UTAUT) was an integration of the elements of all previous theories to propose unified approach. UTAUT was originally developed to explain employee technology acceptance within an organisational context. Therefore, based on a further review of the extant literature, (Venkatesh, Thong, & Xu) (2012) proposed the extension of UTAUT, to what they termed UTAUT2, in order to tailor it to the consumer technology acceptance context. This model (UTAUT-2) can clarify 50% of the variance (Venkatesh, Thong, & Xu, 2012) when using new technology. There are studies that have used UTAUT-2 models to assess user intentions in e-healthcare (Ben Arfi & Hikkerova, 2019) mobile banking (Pham, Doan, & Vu, 2020) online shopping behaviour (Matsuoka, 2018). The UTAUT-2 model remains a key theory in testing technology and information systems adoption related studies, leading to the development of new UTAUT-2 model extension models with other theories or constructs. UTAUT-2 is the theoretic framework of this study.

## 2.1 Hypothesis development

### 2.1.1 Performance expectancy

Performance reflects the degree to which an individual believes that using a technology will help them attain gains in carrying out an activity (Venkatesh, Thong, & Xu, 2012). (Tan & Lau, 2016) did a study on Internet Banking adoption in Malaysia and found performance expectancy to be a significant predictor of internet banking adoption among young Malaysian consumers.

Hypothesis 1- *Performance expectancy influences consumers adoption of digital-only banks.*

### 2.1.2 Effort Expectancy

Venkatesh & Xu (2012) describe effort expectancy refers to the extent to which effort is required in the use of technology positing that the technology should be considered as easy to use. Morosan & DeFranco (2016) in a study on Mobile Banking Adoption in the U.S. using UTAUT2 found that effort expectancy positively influenced the intention to use mobile banking, with users preferring services that were easy to navigate and understand.

Hypothesis 2 –*Effort expectancy influences a consumers’ adoption of digital-only bank services.*

### 2.1.3 Social Influence

Social influence is defined as the influence others have on the individual’s decision to adopt a new system or technology as well as an individual’s perception on the reference group’s

subjective culture (Venkatesh & Xu, 2012). Smith, (2018) posits that social influence affects a person's behaviour and exerts social pressure through compliance, internalisation, identity and the potential gains in social status.

*Hypothesis 3- Social Influence affects digital-only bank services adoption.*

#### **2.1.4 Facilitating Conditions**

Facilitating conditions describe the level of available information-technology infrastructure and prior knowledge that would support an individual to adopt a new technology (Venkatesh, Morris, Davis, & Davis, 2003). Oliveira, Thomas, Baptista & Campos (2016) showed that facilitating conditions affect the consumer's adoption behaviour in the mobile banking context.

*Hypothesis 4 - Facilitating conditions influence the adoption of fintech digital-only banking services.*

#### **2.1.5 Hedonic Motivation**

Hedonic motivation refers to the degree of fun, pleasure, and enjoyment that users get from the use of new technologies and services (Venkatesh, Thong, & Xu, 2012). In a study on adoption of plastic money, Makanyeza & Mutambayashata (2018), found that hedonic motivation positively influences intention to adopt new technology and Yen & Wu (2016) found that both utilitarian and hedonic enjoyment influenced mobile financial services adoption.

*Hypothesis 5 – Hedonic motivations influence adoption of fintech digital-only banking services.*

#### **2.1.6 Financial Self Efficacy**

Financial self-efficacy refers to an individual's confidence in their ability to manage financial tasks and make informed financial decisions (Bandura, 1986). A study by Farah et al. (2018) on Mobile Banking in Pakistan found that financial self-efficacy significantly influenced mobile banking adoption, as users with higher confidence in their financial skills were more likely to use mobile banking services.

*Hypothesis 6 - Financial self-efficacy affects consumers' adoption of fintech digital-only banking services.*

#### **2.1.7 Perceived Risk**

Perceived risk refers to the potential for loss when using a service to obtain desired outcomes (Featherstone & Pavlou, 2003). It encompasses users' concerns about security, privacy, and financial risks associated with using digital banking services. In a study, Khan, Hassan & Anjum (2022) found that perceived risk from privacy concerns negatively affect consumers' intention to use e-banking.

*Hypothesis 7 - Perceived risk influences consumers adoption of fintech digital-only banking services.*

#### **2.1.8 Trust**

Trust refers to an individual's belief about the dependability and reliability of a process or entity (Rotter, 1980). Kaabachi et al (2017) discovered a strong link between trust and the use of online banking services. Kim et al (2009) found that trust is helpful in encouraging people to use the mobile banking apps.

*Hypothesis 8 - Trust influences consumers adoption of fintech digital-only bank services.*

### **2.1.9 Security**

Security refers to the perceived safety of a consumer's financial resources from loss and the assured privacy of personal data. De Luna, Liebana-Cabanillas, Sanchez-Fenarndez & Munoz-Leva (2019) found that perceived security affects consumers' technology usage intentions. Customers are more satisfied with banks that put a high priority on data protection, fraud prevention, and reliable transaction processing because they provide them a sense of security.

*Hypothesis 9 - Security affects consumers adoption of fintech digital-only bank services*

### **2.1.10 Environmental Impact**

This factor refers to the customers consciousness to the impact of environmental challenges such as climate change and global warming in their choice to adopt fintech. In a study done in Malasia on the adoption of digital banks, Saif, Hussin, Husin, Alwadain, Chakraborty (2022), environmentally conscious customers were found to be more concerned with the environmental risks of their behaviour, and this concern influenced their decisions to choose sustainable products and services.

*Hypothesis 10 - Sustainability concerns are a factor influencing the adoption of digital-only banks by consumers.*

### **2.1.11 Financial Incentives & Promotions**

Financial incentives include reduced fees, sign-up bonuses, and promotional offers geared at attracting users to start using a service. Financial incentive promotions are a common strategy used by digital banks to attract and retain customers. The research conducted by Yuliani & Amin, (2022) which examined digital wallets found promotion to have significant effect on behaviour intention to use.

*Hypothesis 11: Financial incentives and marketing promotions influence the adoption of digital-only banks*

### **2.1.12 Micro investing**

Micro investing enables individuals to invest money automatically in small amounts. The idea that makes micro investing attractive leading to adoption is that small investments can add up without much effort or budgetary constraint. In a study done by Saif, Hussin, Husin, Alwadain, Chakraborty (2022) where they tested economic efficiency as a factor in adoption of digital banks in Malaysia, found it to have a positive significant relationship with the intention to adopt digital-only banks

*Hypothesis 12: Micro investing capacity is a factor that influences the adoption of digital-only banks.*

### **2.1.13 Cryptocurrency and digital assets**

Crypto currency is an intangible digital asset whose issuance, sale or transfer are secured by cryptographic technology and shared electronically via a distributed ledger (blockchain). Al-Jabri and Sohail (2018) on Mobile Banking Adoption in Saudi Arabia to explore the impact of emerging technologies, including cryptocurrencies, on mobile banking adoption found that awareness and knowledge of cryptocurrencies significantly influenced their adoption.

*Hypothesis 13: Access to crypto currency is a factor driving the adoption of digital-only banks.*

## **2.2 Proposed Research Conceptual Framework**

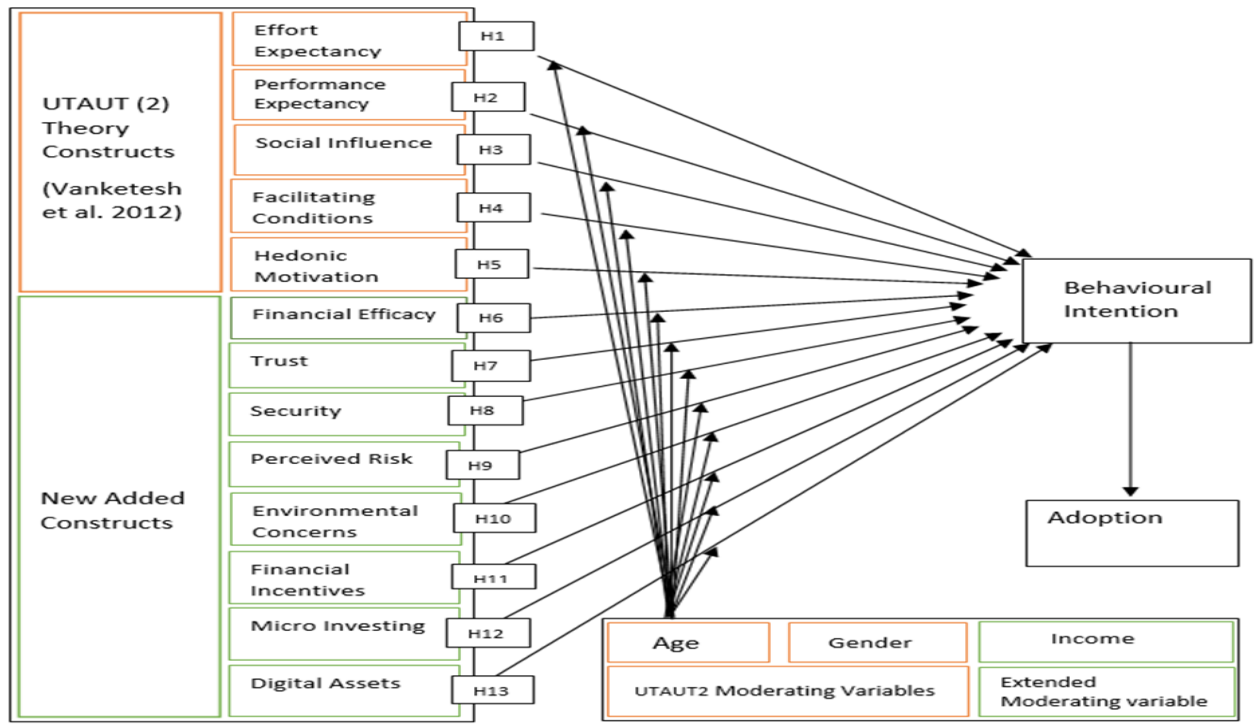


Figure 2 Conceptual Framework – Source Author

### 3. Methodology

#### 3.1 Research Variables and their Measurements

UTAUT-2 theory (Vanketel et al., 2012) was used to model conceptual framework and behavioural intention to adoption factors were obtained from earlier studies literature on banking studies and updated to reference fintech digital-only banks in order to form the research questionnaire survey instrument.

#### 3.2 Research Instrument Design

Two pilot studies were conducted in the development of the research instrument. The first pilot study of 20 respondents was administered to capture newer fintech themes influencing consumers in the adoption of digital-only banks. The second pilot study involving 40 respondents was carried out to test the identified themes for incorporation into the main study instrument alongside the original UTAUT2 theory constructs. Three indicators were used to measure each construct on a 5 Linkert scale.

#### 3.3 Sampling and Data Collection

Convenience and purposive sampling were used for primary data that was collected using a structured questionnaire administered to respondents through online platforms. The Cochran (2007) formula was used to determine acceptable sample size. 385 respondents were the required sample size for this study and 391 respondents were obtained. Target respondents needed to be UK residents who were users of a fintech driven digital only bank.

### **3.4 Data Analysis**

Primary data obtained from the survey was cleaned and coded to have the required quality, accuracy and completeness. To test the hypotheses proposed and theory applied, PLS-SEM was utilised to analyse the collected data using SMART PLS4 software. The data analysis methods involved descriptive statistical analysis, exploratory factor analysis and reliability test, validity test, confirmatory factor analysis (CFA), and SEM. A reliability measure was used to show the consistency of the measurement tool in measuring similar phenomena. Cronbach's alpha was used as a reliability measurement and in this study, a construct was considered reliable if the Cronbach's alpha value was  $(\alpha) \geq 0.60$  (60%)

## **4. Results**

### **4.1 Descriptive Statistics**

Analysis of the data showed that a substantial majority of participants (95%) belonged to the 25-46 age group with the remainder falling either side. These findings underscore the predominant representation of young adults in the sample. In terms of gender, the results indicate a female majority (54%) compared with males (46%). Additionally, the data reveal that average earnings for the sample of respondents earn above average (£33,000) of the UK average salary of £30K according to the Office of National Statistics Report – Earnings and employment (2024), with the majority of respondent users indicating self-employed (85%). Most participants (58%) reported having 2-4 years of digital-only bank usage experience, with 31% indicating use of less than 1 year and 11% over 5 years. 46% considered their digital-only bank as their main account while 54% indicated it was their secondary account. Table 1 shows the summary results of 391 respondents assessed.

Demographics	Characteristics	Frequency	Percent
Gender	Male	181	46%
	Female	210	54%
Age	18-25	9	2%
	26-35	259	67%
	36-45	116	30%
	46+	7	1%
Income	£10,000	9	2%
	11-20,000	116	30%
	21-30,000	131	33%
	31-40,000	39	10%
	41-50,000	39	10%
	50,000+	57	15%
Occupation	Student	18	5%
	Professional	36	9%
	Self Employed	333	85%
	Home maker	3	negligible
	Retired	4	negligible
Frequency of use	Daily	146	36%
	Once a week	133	34%
	Once a month	110	27%
	Occasionally	12	3%
Number of yrs use	less than 1 yr	121	31%
	1-2 years	119	30%
	3-4 years	108	28%
	5+ years	43	11%

*Table 1 Descriptive Statistics – Source Author*

## 4.2 Measurement Model

The measurement model establishes the reliability and validity of constructs as indicators of the dependant variable. This study used factor loadings for confirmatory factor analysis (CFA) to affirm each indicator that shaped each construct using SEM data analysis technique. The resulting factor loadings are shown in Table 2. The results show that each question on the questionnaire was an indicator of the underlying construct, except for 3, on different constructs, which means the constructs were good indicators of behavioural intention to adopt digital-only banks.

	<b>Outer loadings</b>	<b>CA</b>	<b>AVE</b>	<b>CR</b>
<b>CD1 &lt;- CD</b>	0.3	0.7	0.4	0.6
<b>CD2 &lt;- CD</b>	0.4			
<b>CD3 &lt;- CD</b>	0.9			
<b>CU1 &lt;- CU</b>	0.8	0.7	0.6	0.8
<b>CU2 &lt;- CU</b>	0.8			
<b>CU3 &lt;- CU</b>	0.7			
<b>EC1 &lt;- EC</b>	0.7	0.7	0.6	0.8
<b>EC2 &lt;- EC</b>	0.8			
<b>EC3 &lt;- EC</b>	0.8			
<b>EE1 &lt;- EE</b>	0.8	0.7	0.6	0.8
<b>EE2 &lt;- EE</b>	0.8			
<b>EE3 &lt;- EE</b>	0.8			
<b>FC1 &lt;- FC</b>	0.8	0.6	0.6	0.8
<b>FC2 &lt;- FC</b>	0.7			
<b>FC3 &lt;- FC</b>	0.7			
<b>FIM1 &lt;- FIM</b>	0.5	0.7	0.6	0.8
<b>FIM2 &lt;- FIM</b>	0.9			
<b>FIM3 &lt;- FIM</b>	0.8			
<b>FSE1 &lt;- FSE</b>	0.8	0.7	0.6	0.8
<b>FSE2 &lt;- FSE</b>	0.8			
<b>FSE3 &lt;- FSE</b>	0.7			
<b>HM1 &lt;- HM</b>	0.6	0.5	0.5	0.8
<b>HM2 &lt;- HM</b>	0.8			
<b>HM3 &lt;- HM</b>	0.7			
<b>MIO1 &lt;- MIO</b>	0.6	0.5	0.5	0.7
<b>MIO2 &lt;- MIO</b>	0.8			
<b>MIO3 &lt;- MIO</b>	0.7			
<b>PE1 &lt;- PE</b>	0.4	0.2	0.4	0.6
<b>PE2 &lt;- PE</b>	0.9			
<b>PE3 &lt;- PE</b>	0.5			
<b>PR1 &lt;- PR</b>	0.6	0.7	0.5	0.8
<b>PR2 &lt;- PR</b>	0.8			
<b>PR3 &lt;- PR</b>	0.8			
<b>S1 &lt;- S</b>	0.8	0.7	0.7	0.8
<b>S2 &lt;- S</b>	0.9			
<b>S3 &lt;- S</b>	0.8			
<b>SI1 &lt;- SI</b>	0.9	0.8	0.7	0.9
<b>SI2 &lt;- SI</b>	0.8			
<b>SI3 &lt;- SI</b>	0.8			
<b>T1 &lt;- T</b>	0.8	0.7	0.6	0.8
<b>T2 &lt;- T</b>	0.8			
<b>T3 &lt;- T</b>	0.7			

Table 2 Confirmatory Factor analysis, Reliability and Validity Results – Source Author SEM Analysis

### 4.3 Reliability

The results in Table 2 confirm the existence of reliability and internal consistency among the constructs of the research model as measured by Cochran’s alpha and composite reliability, which are required to be above 0.6

### 4.4 Validity

**Convergent validity**, which measures the degree to which multiple attempts to measure the same concept agree was measured by Average Variance Extracted (AVE) and the results on Table 2 exhibit AVE values surpassing 0.50 on all constructs, except for 2, signifying convergent validity.

**Discriminant validity**, the measure of the extent to which a construct within the model is distinct from other constructs in the model, is measured in two forms using HTMT and Fornell-Larcker criterion and the results are shown in Table 3 and Table 4, affirming the presence of discriminant validity among the constructs within the research model.

	CD	CU	EC	EE	FC	FIM	FSE	HM	MIO	PE	PR	S	SI
<b>CD</b>													
<b>CU</b>	0.312												
<b>EC</b>	0.21	0.465											
<b>EE</b>	0.257	0.474	0.707										
<b>FC</b>	0.22	0.457	0.617	0.436									
<b>FIM</b>	0.091	0.176	0.127	0.07	0.305								
<b>FSE</b>	0.584	0.557	0.408	0.532	0.507	0.121							
<b>HM</b>	0.216	0.523	0.307	0.436	0.692	0.124	0.554						
<b>MIO</b>	0.187	0.265	0.148	0.248	0.193	0.511	0.24	0.169					
<b>PE</b>	0.285	0.728	0.46	0.553	0.489	0.147	0.608	0.682	0.298				
<b>PR</b>	0.189	0.336	0.235	0.3	0.281	0.136	0.349	0.359	0.267	0.517			
<b>S</b>	0.156	0.367	0.253	0.301	0.291	0.141	0.375	0.314	0.073	0.77	0.209		
<b>SI</b>	0.136	0.327	0.067	0.177	0.216	0.201	0.146	0.375	0.142	0.434	0.16	0.112	
<b>T</b>	0.232	0.461	0.269	0.372	0.323	0.113	0.476	0.481	0.181	0.645	0.286	0.317	0.245

Table 3 Discriminant Validity - HTMT

	CD	CU	EC	EE	FC	FIM	FSE	HM	MIO	PE	PR	S	SI	T
<b>CD</b>	0.629													
<b>CU</b>	0.324	0.765												
<b>EC</b>	0.196	0.31	0.776											
<b>EE</b>	0.294	0.333	0.543	0.793										
<b>FC</b>	0.201	0.314	0.445	0.319	0.747									
<b>FIM</b>	0.063	0.149	0.042	0.034	0.186	0.745								
<b>FSE</b>	0.704	0.368	0.275	0.368	0.342	0.086	0.765							
<b>HM</b>	0.241	0.332	0.207	0.312	0.428	0.095	0.347	0.709						
<b>MIO</b>	-	-	-	-	-	0.164	-	-	0.701					
<b>PE</b>	0.125	0.143	0.083	0.146	0.099	0.131	0.095							
<b>PR</b>	0.236	0.352	0.187	0.258	0.187	0.088	0.286	0.277	-0.08	0.611				
<b>PR</b>	0.213	0.248	0.174	0.229	0.209	0.097	0.243	0.247	-	0.306	0.728			
<b>S</b>	0.165	0.266	0.177	0.228	0.201	0.108	0.25	0.219	-	0.339	0.165	0.806		
<b>S</b>									0.151					
<b>SI</b>	0.133	0.234	0.027	0.134	0.153	0.181	0.087	0.249	-	0.025	0.216	0.139	0.098	0.82
<b>SI</b>									0.044					
<b>T</b>	0.275	0.314	0.186	0.266	0.222	0.084	0.324	0.316	-	0.322	0.206	0.236	0.185	0.79
<b>T</b>									0.104					

Table 4 Discriminant Validity - Fornell-Larcker Criterion

## 4.5 Structural Model

### 4.5.1 VIF- Multicollinearity Indicator

Multicollinearity refers to a situation where several independent variables in a model are correlated, which can negatively affect model predictions. (Fornel & Bookstein, 2016). High multicollinearity can inflate standard errors and make it difficult to assess the individual effect of variables, thereby affecting the reliability of the SEM results. Table 5 shows that VIF values fall within the range of 1.090 to 2.355, which is within the recommended threshold. Hence, there are no issues related to multicollinearity in the dataset.

	VIF
<b>CD -&gt; CU</b>	2.039
<b>EC -&gt; CU</b>	1.637
<b>EE -&gt; CU</b>	1.636
<b>FC -&gt; CU</b>	1.561
<b>FIM -&gt; CU</b>	1.118
<b>FSE -&gt; CU</b>	2.355
<b>HM -&gt; CU</b>	1.449
<b>MIO -&gt; CU</b>	1.090
<b>PE -&gt; CU</b>	1.348
<b>PR -&gt; CU</b>	1.196
<b>S -&gt; CU</b>	1.204

SI -> CU	1.154
T -> CU	1.275

Table 5 Multi-Collinearity Results - Source Author SEM Analysis

### 4.5.2 R-Square

**R-Square (R<sup>2</sup>)**, measures the proportion of variance in the endogenous (dependent) variable that is explained by the exogenous (independent) variables in the model. It provides an indication of the model's explanatory power and goodness of fit. The study has an R<sup>2</sup> of 31% which explained the variance in behavioural intention and actual use of digital only bank services, this is considered moderate and acceptable in social sciences.

### Q-Square

Q-Square (Q<sup>2</sup>), is used to assess the predictive relevance of the endogenous constructs in the model. It indicates how well the model predicts the data points of the observed variables. The results indicate that the value of behavioural intention and adoption of Q<sup>2</sup> = 0.25, thus confirming the model's medium predictive accuracy (Hair et al, 2021).

### 4.5.3 Hypothesis testing

Table xxx shows the p value results of the hypothesis testing which indicates Environmental Concerns, Hedonic motivation, Performance expectancy, Perceived Risk, Security, Micro investing opportunities, Social Influence and Trust have a significant positive effect on behavioural intention to adopt digital-only banks, demonstrating that those hypotheses were supported. P values for Effort expectancy, Crypto currency and digital assets access, facilitating conditions, Financial Incentives and Marketing and Financial Self efficacy were above the 0.05 p-value threshold, meaning the hypothesis was not supported. The hypothesis results Table 6 shows the decision summary on the research hypothesis.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values	Decision
CD -> CU	0.09	0.101	0.061	1.472	0.07	Not Supported
EC -> CU	0.125	0.127	0.055	2.292	0.01	Supported
EE -> CU	0.054	0.052	0.053	1.014	0.16	Not Supported
FC -> CU	0.055	0.055	0.048	1.15	0.13	Not Supported
FIM -> CU	0.073	0.077	0.048	1.53	0.06	Not Supported
FSE -> CU	0.083	0.075	0.064	1.29	0.09	Not Supported
HM -> CU	0.087	0.089	0.05	1.729	0.04	Supported
MIO -> CU	-0.07	-0.077	0.043	1.624	0.05	Supported
PE -> CU	0.138	0.139	0.046	2.994	0.001	Supported
PR -> CU	0.039	0.044	0.044	0.88	0.031	Supported

<b>S -&gt; CU</b>	0.074	0.074	0.043	1.701	0.045	Supported
<b>SI -&gt; CU</b>	0.1	0.1	0.046	2.167	0.015	Supported
<b>T -&gt; CU</b>	0.083	0.083	0.048	1.756	0.040	Supported

Table 6 Hypothesis Testing Results

#### 4.5.4 Moderating Variables

Table 7,8&9 show the results of the moderating variables of income, age and gender and none of the moderating effects were confirmed in this study.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
<b>Age x PE -&gt; CU</b>	0.04	0.038	0.06	0.678	0.498
<b>Age x EE -&gt; CU</b>	-0.017	-0.012	0.071	0.233	0.816
<b>Age x HM -&gt; CU</b>	0.083	0.076	0.056	1.463	0.143
<b>Age x T -&gt; CU</b>	-0.048	-0.044	0.054	0.898	0.369
<b>Age x FSE -&gt; CU</b>	0.096	0.061	0.094	1.024	0.306
<b>Age x FC -&gt; CU</b>	-0.035	-0.025	0.06	0.58	0.562
<b>Age x PR -&gt; CU</b>	0.02	0.022	0.061	0.321	0.748
<b>Age x S -&gt; CU</b>	-0.009	-0.015	0.056	0.155	0.876
<b>Age x FIM -&gt; CU</b>	-0.076	-0.068	0.051	1.485	0.137
<b>Age x SI -&gt; CU</b>	-0.031	-0.031	0.041	0.754	0.451
<b>Age x EC -&gt; CU</b>	-0.02	-0.014	0.062	0.327	0.744
<b>Age x CD -&gt; CU</b>	-0.176	-0.148	0.105	1.685	0.092
<b>Age x MIO -&gt; CU</b>	-0.015	-0.025	0.049	0.315	0.753

Table 7 Age Moderation Results

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
<b>Gender</b>	<b>x</b>	0.05	0.051	0.103	0.492	0.623
<b>PE -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	-0.085	-0.082	0.115	0.743	0.457
<b>EE -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	0.122	0.121	0.108	1.134	0.257
<b>HM -&gt; CU</b>						
<b>Gender x T -</b>		-0.01	-0.015	0.101	0.096	0.923
<b>&gt; CU</b>						
<b>Gender</b>	<b>x</b>	-0.082	-0.074	0.144	0.571	0.568
<b>FSE -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	-0.004	-0.005	0.111	0.04	0.968
<b>FC -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	-0.041	-0.037	0.093	0.443	0.658
<b>PR -&gt; CU</b>						
<b>Gender x S -</b>		-0.155	-0.152	0.092	1.687	0.092
<b>&gt; CU</b>						
<b>Gender</b>	<b>x</b>	0.063	0.061	0.103	0.612	0.541
<b>FIM -&gt; CU</b>						
<b>Gender x SI</b>		0.053	0.057	0.098	0.542	0.588
<b>-&gt; CU</b>						
<b>Gender</b>	<b>x</b>	0.121	0.121	0.114	1.059	0.29
<b>EC -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	0.092	0.077	0.138	0.669	0.504
<b>CD -&gt; CU</b>						
<b>Gender</b>	<b>x</b>	0.161	0.153	0.101	1.595	0.111
<b>MIO -&gt; CU</b>						

Table 8 Gender Moderation Results

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics ( O/STDEV )	P values
<b>Income x PE</b>		0.009	0.018	0.068	0.131	0.896
<b>-&gt; CU</b>						
<b>Income x EE</b>		0.042	0.035	0.061	0.683	0.495
<b>-&gt; CU</b>						
<b>Income</b>	<b>x</b>	-0.025	-0.026	0.058	0.431	0.666
<b>HM -&gt; CU</b>						
<b>Income x T -</b>		-0.096	-0.09	0.049	1.948	0.051
<b>&gt; CU</b>						
<b>Income</b>	<b>x</b>	0.027	0.023	0.074	0.359	0.719
<b>FSE -&gt; CU</b>						
<b>Income x FC</b>		0.028	0.026	0.056	0.502	0.616
<b>-&gt; CU</b>						

<b>Income x PR -&gt; CU</b>	-0.04	-0.048	0.054	0.745	0.456
<b>Income x S - &gt; CU</b>	0.081	0.072	0.051	1.574	0.116
<b>Income x FIM -&gt; CU</b>	-0.049	-0.054	0.058	0.847	0.397
<b>Income x SI - &gt; CU</b>	-0.015	-0.02	0.044	0.335	0.738
<b>Income x EC -&gt; CU</b>	0.011	0.015	0.058	0.193	0.847
<b>Income x CD -&gt; CU</b>	-0.044	-0.029	0.073	0.608	0.543
<b>Income x MIO -&gt; CU</b>	-0.027	-0.033	0.058	0.461	0.645

*Table 9 Income moderation results*

## 5. Discussion

This research is still developing, so far, no discussion has been attempted, however, the preliminary results obtained this far have addressed research objective (RO)1, which is to identify/determine factors that are driving the adoption of digital-only banks by UK users of this fintech technology by testing the conceptual hypothetical framework. The R<sup>2</sup> result of the study addresses RO2, which is to establish the extent to which these technological, behavioural, and environmental factors are influencing or explain the consumers acceptance and use of digital-only bank services in the UK. RO3 sought to establish possible differences in consumer adoption of digital-only banks based on the customers' demographic characteristics of age, gender, and income as the moderating variables influencing the adoption. The results of the study did not confirm significance of the moderating variables. Further in-depth discussion of the above results will contribute to drawing the conclusion that addresses RO4.

### 5.1 Practical and Theoretical Contributions of the study

#### 5.1.1 Practical Implications

Understanding these driving factors can help in ensuring long-term, sustainable success of the financial industry. The outcomes of this study may be valuable to application developers and banks who want to improve their services for their consumers. Policy makers and regulators could use this information to implement robust security measures, compliance, transparent practices, and effective consumer support. The insights can help developers and founders' awareness of success factors. The insights can also be useful for government, regulators and policymaking to monitor the developments in the financial industry and ensure a safe regulatory environment. This will ultimately contribute to the sustainable growth of digital-only banks at the forefront of the fintech revolution in the UK.

#### 5.1.2 Theoretic Implications

This study contributes to the limited research and literature on digital-only banks adoption in developed economies. The study also highlights some unique findings on the significance of moderating variables and adds to the debate of their relevance. Testing newer fintech driven financial consumption themes is another contribution this study makes to the literature available, as well as combining the number of themes together in one framework, while most studies would focus on fewer.

## **5.2 Limitations of Study and Future Direction of Research**

So far, some of the limitations to the study that have been identified include, first, the sampling method used of convenience sampling which has inherent bias weaknesses. The second is the employment of cross section time frame which may be influenced by other factors such as seasonal timing. The third is the geographic limitation in which the research was conducted which may make the results not generalisable as different factors may be contextual. Future direction of the research could consider longitudinal study and perhaps expand future research to explore similar studies in different cultural contexts that could shed light on how cultural factors influence digital-only bank adoption.

## **6. Conclusion**

Overall, this research underscores the complex interplay of technological, behavioural and environmental factors in shaping digital only bank adoption and usage in the UK. It provides valuable insights for service providers and policymakers, highlighting the need for user-centric design, robust cybersecurity measures, and adherence to data protection standards. By addressing these factors, digital only banks can foster trust, enhance user experience, and promote the continued growth of the FinTech sector. As FinTech continues to shape the financial landscape, this study contributes to a holistic understanding of the dynamics driving adoption and usage of digital-only banks in the UK.

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