



Assessing Factors Influencing Customers' Behavioral Intentions to Adopt Online Payment System of the Ghana Revenue Authority in Tax Collection

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ABSTRACT

The purpose of this study was to investigate the factors influencing the adoption of Financial Technology (Fintech) in the realm of tax collection in Ghana. This study utilized a quasi-non experimental correlational design and the Extended Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) framework to investigate factors influencing employees' intentions to adopt Fintech in tax collection at the Ghana Revenue Authority. Data was collected through a survey of 1410 employees, and Structural Equation Modelling was used for analysis. The study revealed a positive and significant relationship between performance expectancy and behavioral intentions, indicating that employees who perceived Fintech as a valuable tool for enhancing tax collection efficiency were more likely to adopt it. Similarly, there was a positive correlation between effort expectancy and behavioral intentions, implying that employees' inclination to adopt Fintech was influenced by their perception of its ease of use. However, social influence did not significantly impact Fintech adoption in the context of tax collection in Ghana. Facilitating conditions, price value, and habit were found to have a positive and significant influence on employees' behavioral intentions to adopt Fintech, while hedonic motivation had a negative impact on adoption intentions. The findings of this study contribute to the existing literature by extending the UTAUT2 framework to the domain of tax collection in Ghana. It confirms the significance of performance expectancy, effort expectancy, facilitating conditions, price value, and habit as important determinants of Fintech adoption behavior. Additionally, it challenges the assumption that social influence uniformly drives technology adoption, suggesting that its impact may vary in different contexts, such as tax collection.

Keywords: Fintech adoption, Ghana Revenue Authority, Extended Unified Theory of Acceptance and Use of Technology 2, Behavioral intentions and Tax collection

1. Introduction

In recent years, the global financial industry has witnessed a remarkable transformation with the widespread integration of financial technology (Fintech). The Fintech ecosystem comprises a diverse range of participants dedicated to fostering innovation and enhancing competition within the financial industry, leading to benefits for clients and bolstering economic productivity (Nelaturu et al., 2022). While scholarly investigations have extensively examined Fintech adoption within the banking industry, limited attention has been given to its potential advantages in tax collection, especially in developing nations like Ghana (Agbetunde et al., 2022; Amoh et al., 2023). Revenue mobilization is a critical aspect of economic development in any nation. Efficient and effective tax collection is vital for financing public goods and services, infrastructure development, and social welfare programs (Kyere et al., 2019). In developing countries like Ghana, maximizing revenue collection is particularly crucial to meet the increasing demands for public services and drive sustainable development (Carsamer, E., & Abbam, 2023). However, traditional tax collection methods have shown limitations in terms of efficiency, transparency, and revenue generation. The integration of Fintech presents a promising solution to address these challenges and enhance tax collection processes (Alalwan et al., 2017; AlFarraj et al., 2021). Despite the significance of revenue mobilization for national development, there is a dearth of research on the adoption of Fintech in tax collection procedures in Ghana. Existing literature on Fintech adoption has predominantly focused on the banking sector, leaving a research gap in its application within tax collection processes (Nizam et al., 2020; Taselaar, 2020). This research gap provides a valuable opportunity to investigate the various factors that influence employees' behavioral intentions to adopt financial technology (Fintech) within the context of the GRA, where the efficiency of tax collection holds significant importance. To address the research gap and examine the factors influencing Fintech adoption in tax collection, this study will employ the theoretical framework of the UTAUT2 proposed by Venkatesh et al. (2012). Even though Crawford (2020) indicated that over 5000 peer-reviewed articles used UTAUT2 as a theoretical framework to understand factors that influence the adoption of new technologies, none of these studies specifically considered employees in the government institutions, specifically revenue collection. Therefore, this study aims to extend the framework's application to the domain of tax collection in a government institution, thereby enhancing the understanding of technology adoption behavior in this context. The main objective of this study is to examine the determinants that impact employees' behavioral intentions towards the adoption of Fintech in tax collection processes within the Ghana Revenue Authority. Specifically, the study seeks to

identify the factors that influence employees' behavioral intentions to adopt Fintech in tax collection at the GRA, gain a comprehensive understanding of the potential benefits and challenges associated with Fintech implementation in tax collection, and contribute to the expanding pool of knowledge regarding Fintech adoption in developing nations, with a particular focus on its implications for tax collection. The findings of this research will have significant implications for policymakers, practitioners, and researchers in the Fintech industry and will aid in the formulation of policies to enhance revenue mobilization and maximization for national development. By illuminating the factors that influence Fintech adoption, the study will contribute to the literature on Fintech adoption in developing nations and provide valuable insights into the potential benefits and challenges associated with the implementation of Fintech in tax collection in Ghana. Moreover, the extension of the UTAUT2 framework to the domain of tax collection in a government institution will enhance the understanding of technology adoption behavior in this context.

2. Literature Review

Theoretical Framework

UTAUT 2 Theory and Adoption of Fintech

In recent years, there has been a notable transformation in the global financial industry due to the extensive integration of Fintech. The scholarly examination of Fintech adoption has primarily focused on the banking industry, with limited attention given to its potential advantages in tax collection, particularly in developing nations such as Ghana (Agbetunde et al., 2022; Amoh et al., 2023). The Ghana Revenue Authority (GRA) assumes a crucial role in the collection of government revenue; however, its conventional approaches to tax collection have demonstrated inefficiency, impeded by issues such as corruption and bureaucratic obstacles. A comprehensive comprehension of the utilization of Fintech in the tax collection procedures is of paramount importance in augmenting tax efficacy and overall revenue generation at the Ghana Revenue Authority (GRA). Several scholarly investigations have examined the implementation of technology across different industries and have identified various determinants that impact its adoption. These determinants include performance expectancy, social influence, behavioral intention, facilitating conditions, habit, and price value (Venkatesh et al., 2012; Ammenwerth, 2019; Gansser et al., 2021). Nevertheless, despite the extensive examination of these factors in the banking sector's adoption of Fintech, there is a relative dearth of research on their influence on employees' behavioral intentions to adopt Fintech in tax collection processes in Ghana. The extant body of literature pertaining to the adoption of Fintech has predominantly concentrated on its implementation within the banking industry, thereby creating a dearth of understanding regarding its utilization in the realm of tax collection procedures, particularly in developing nations such as Ghana. The existence of this research gap provides a valuable opportunity to investigate the various factors that influence employees' behavioral intentions to adopt financial technology (Fintech) within the context of the GRA, where the efficiency of tax collection holds significant significance. Moreover, the presence of inconsistencies and controversies within the current body of literature pertaining to the suitability of Fintech in the domain of tax collection necessitates additional scrutiny and examination.

The UTAUT2 theoretical framework, as formulated by Venkatesh et al. (2012), provides an explanation of the various factors that influence the adoption and utilization of technology. The UTAUT 2 model expanded upon the original UTAUT framework by integrating additional variables, specifically hedonic motivation, price value, and habit. The aforementioned model has been extensively utilized within the realm of Fintech adoption, with its primary focus being the examination of various factors that influence individuals' behavioral intentions towards adopting Fintech (Yang et al., 2023). The emergence of Fintech has resulted in notable transformations within the realm of financial services, as it leverages technological advancements to enhance various aspects of financial transactions. This has led to the provision of advantages such as increased convenience, accelerated processing times, and improved cost-efficiency. Nevertheless, the adoption of Fintech exhibited a lack of universality and displayed significant variations across different countries and industries. The adoption of Fintech has been found to be influenced by various factors, including social influence, behavioral intention, facilitating conditions, habit, and price value (Tamilmani et al., 2021). The UTAUT 2 model has identified four primary factors that have a significant impact on the adoption of technology. These factors include performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy is a construct that captures an individual's belief that utilizing technology will result in improved performance. On the other hand, effort expectancy pertains to the perception that using technology will be effortless or easy. The concept of social influence pertains to the influence exerted by others' opinions within an individual's social network. On the other hand, facilitating conditions encompass the availability of essential resources and support for the utilization of technology (Chan et al., 2021).

Furthermore, UTAUT2 incorporated three supplementary variables, namely hedonic motivation, price value, and habit, alongside the existing four factors. According to Baabdullah (2018) and Hu et al. (2020), hedonic motivation pertained to the pleasure or enjoyment that individuals experienced when utilizing technology, whereas price value denoted the perceived value of the technology relative to its cost. The final variable, habit, represents the degree to which individuals have acquired automated behaviors in their utilization of technology (Tamilmani et al., 2021). The original model of UTAUT2 (see figure 1) as espoused by Venkatesh et al. (2012) had age, gender, and experience as moderators and use behavior as a dependent variable, which was conceptualized as a resultant variable emanating from BI. These variables were excluded from most studies (Venkatesh et al., 2016; Weeger et al., 2018; Gupta et al., 2019). Few studies that use the moderators did not find any significant effect on the outcome variable (Nordhoff et al., 2020). In the realm of Fintech adoption, UTAUT2 has been extensively utilized in numerous research studies to examine the determinants that influence individuals' behavioral intentions towards adopting Fintech. An investigation carried out by Zhang et al. (2021) in Korea yielded findings indicating that performance expectancy, effort expectancy, and social influence exerted significant influence on individuals' behavioral intentions to adopt Fintech. In a similar vein, a separate study conducted by Tamilmani et al. (2021) revealed that factors such as social influence, facilitating conditions, hedonic motivation, and habit played a significant role in predicting individuals' behavioral intentions to embrace mobile payment services. In light of the potential ramifications of applying the UTAUT2 to the adoption of Fintech in revenue collection practices in Ghana, this study sought to address certain theoretical gaps by

integrating supplementary variables that are particularly relevant to the context of revenue collection. The Extended Unified model offered valuable insights into the adoption of technology in the public sector by incorporating institutional factors such as the legal framework and regulatory environment. Furthermore, the consideration of privacy and security concerns was undertaken to address apprehensions regarding the safeguarding of taxpayer information while utilizing Fintech platforms. The adoption of technology in Ghana was influenced by cultural and societal factors, with careful consideration given to the country's unique cultural beliefs and practices. Additionally, the study investigated the significance of government assistance and training programs in guaranteeing the effective integration of Fintech within the revenue collection procedure.

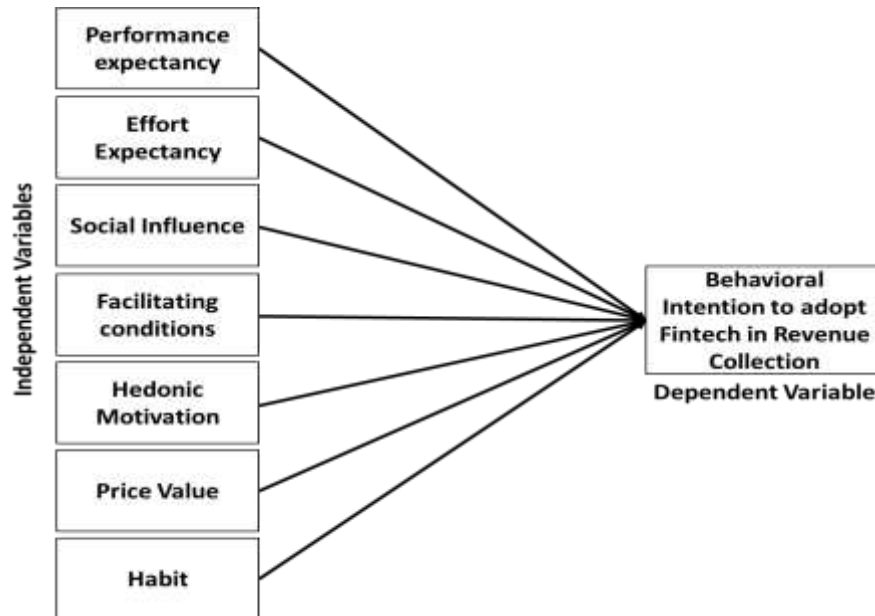


Figure 1: Conceptual Framework (

Source: Authors Construct (2023) adapted and modified from Venkatesh et al. (2012)

The application of the UTAUT2 framework in examining the adoption of Fintech for revenue collection in Ghana has resulted in a more comprehensive comprehension of the various factors that influence employees' behavioral intentions towards Fintech adoption. The Extended Unified model offers valuable insights that policymakers and tax authorities can employ to develop effective strategies aimed at fostering the adoption of Fintech. This, in turn, can result in enhanced efficiency, transparency, and revenue generation for the Ghana Revenue Authority.

Empirical Literature

The utilization of Fintech in the realm of tax collection has garnered significant attention due to its capacity to revolutionize the procedures involved in revenue collection. Nevertheless, the implementation of Fintech in Ghana and other developing countries has been lacking in pace, highlighting the need for further research to explore the factors that influence its adoption. In order to bridge this existing knowledge gap, numerous scholarly investigations have been conducted to explore the various factors that impact the adoption of Financial Technology (Fintech) in the realm of tax collection. Consequently, it is imperative to undertake a comparative analysis of these research studies to gain a comprehensive understanding of their respective findings. The UTAUT2 framework, as proposed by Venkatesh et al. (2012), offers a comprehensive theoretical basis for examining the factors that influence the adoption of technology, specifically in the context of tax collection within the domain of Fintech. This framework encompasses a range of variables that can provide insights into individuals' behavioral intentions regarding the adoption of Fintech in various areas like procurement and other disciplines (Antwi-Boampong et al., 2022). PE refers to the degree to which individuals hold the belief that the utilization of Fintech will result in an improvement of their performance in the domain of tax collection. Previous research conducted in Ghana by Senyo et al. (2022) demonstrated that Fintech in developing countries is being scaled and shaped in terms of actors, relationships, and practices. Puspitaningsih et al., (2023) and Antwi-Boampong et al. (2022) revealed a noteworthy and positive correlation between performance expectancy and the intention to utilize Fintech. This finding implies that individuals are more inclined to embrace Fintech when they perceive it as a valuable instrument for enhancing the efficiency of tax collection. EE refers to the perceptions held by individuals regarding the ease or difficulty associated with utilizing Financial Technology (Fintech) for the purpose of tax collection. Previous research conducted in Uganda by Ahikiriza et al. (2022) as well as in Ghana by others has yielded noteworthy findings. Specifically, these studies have identified a substantial and positive correlation between individuals' perceived ease of use (effort expectancy) and their intention to adopt and utilize Fintech services. This suggests that individuals' inclination to adopt Fintech is influenced by their perception of its ease of use for tax collection. The concept of Social Influence (SI) pertains to the degree to which individuals are impacted by the viewpoints of others within their social network. Antwi-Boampong et al. (2022) conducted a study in Ghana, while Zhang et al. (2021) conducted a study in Korea. While Zhang found compelling evidence supporting a positive correlation between social influence and the intention to use Fintech. This implies that the inclination of individuals to embrace Fintech for tax collection can be swayed by the viewpoints and endorsements of their peers and colleagues. Facilitating Conditions refer to the degree to which individuals possess the requisite resources and support to effectively utilize Fintech for the purpose of tax collection. Previous research

conducted in Uganda by Ahikiriza et al. (2022) and in Jordan by Zhang et al. (2021) has documented a noteworthy and positive correlation between facilitating conditions and the intention to utilize Fintech services. This suggests that the provision of requisite resources and support can serve as a catalyst for individuals to embrace Fintech in the context of tax collection. The concept of price value encompasses the subjective assessment of the benefits derived from utilizing Fintech services in relation to the expenses incurred in its implementation. According to the study conducted by Ouattara (2017), the variables of price value and hedonic motivation were identified as significant predictors of employees' behavioral intention to adopt technology within the Canadian context. Nevertheless, the literature review failed to offer precise insights regarding the correlation between price value and the adoption of Fintech in Ghana's tax collection, thereby highlighting the existence of an additional research gap that necessitates further investigation. This study examines the potential impact of price value on individuals' behavioral intentions to adopt Fintech in the specific context of revenue collection in Ghana. The term "habit" pertains to the acquisition of automatic behaviors that are developed through the repetition of actions over a period of time. Tamilmani et al. (2020) highlighted the importance of habit as a construct that is strongly associated with behavioral intention. Nevertheless, the studies that were reviewed did not specifically investigate the correlation between habit and the adoption of Fintech in tax collection in Ghana, thereby highlighting an additional research gap. Hence, this research endeavors to investigate the significance of habit in the context of individuals' behavioral intentions towards the adoption of Fintech for tax collection in Ghana.

3. Methodology

The present study employed a quasi-nonexperimental correlational research design to examine the various factors that influence employees' behavioral intentions towards the adoption of Financial Technology (Fintech) in tax collection at the Ghana Revenue Authority. The study utilized the UTAUT2 as its theoretical framework, as proposed by Venkatesh et al. (2012). The collection of research data was facilitated by the administration of a survey questionnaire, while the subsequent analysis of the data was carried out utilizing software programs such as SPSS and Stata. The study's sample comprised individuals employed by the Ghana Revenue Authority across all 16 regions, with a specific focus on those engaged in tax collection activities. The study encompassed a total sample size of 1410 employees, who were chosen via an online survey. In order to assess the reactions of the participants, the researcher utilized the measurement instrument known as the Consumer Acceptance and Use of Information Technology, which was developed by Venkatesh et al. (2012). The rationale for utilizing this preexisting survey instrument was grounded in its previously established validity and reliability as demonstrated in prior research (Blumberg, B., Cooper, D., & Schindler, 2014). In order to tailor the survey instrument to the particular context of this study, the researcher incorporated the term "Fintech" into the survey to situate it within the realm of Fintech and enhance the comprehensibility of the survey statements. A face validity assessment was carried out by a group of five employees who examined the survey instrument's content, which had undergone minor modifications. The panelists offered feedback on multiple components, including the introductory message, research objectives, contextual details, informed consent document, guidelines, and statements within the survey instrument. The mean duration required by the panelists to finish the questionnaire was 15 minutes, thereby confirming the practicability of the data collection procedure. The survey instrument comprised a total of 32 questions, which were further categorized into nine distinct sections. The initial portion of the study collected demographic data, whereas the subsequent eight sections encompassed a total of 28 statements that participants were required to evaluate using a seven-point Likert-type scale. According to (Göb et al., 2007), the utilization of a Likert-type scale allowed participants to articulate their value judgments, attitudes, opinions, and dispositions in relation to the statements presented in the survey. The statistical technique employed for data analysis in this study was Structural Equation Modeling (SEM), which was selected due to its capability to investigate the associations between dependent and independent variables (P. Kumar, 2021). Structural equation modeling (SEM) was employed to examine the association between a set of independent variables, namely performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit, and the dependent variable of behavioral intentions to adopt Fintech. The online survey spanned a period of three months, during which data collection was conducted. The researcher obtained permission from MIS Quarterly, the entity that possesses the rights to the survey instrument on consumer acceptance and use of information technology. This measure was implemented to ensure adherence to copyright regulations and ethical considerations.

The study demonstrated a rigorous commitment to ethical principles in the conduct of research, particularly with regard to ethical considerations. All participants provided informed consent, indicating their complete understanding of the study's objectives, the confidentiality of their responses, and their entitlement to withdraw from the study at any point (Hair et al., 2019). The participants were provided with the assurance that their involvement in the study was voluntary, and their responses would be handled with the highest level of confidentiality. In addition, the online survey provided an opportunity for participants to express their consent to participate in the study, and individuals who opted not to take part were promptly excluded from the survey, thereby ensuring the protection of their autonomy and privacy.

4. Results

The study on Fintech adoption for revenue collection in the Ghana Revenue Service obtained responses from employees across various regions, providing valuable insights into the regional distribution of participants. Among the regions, Greater Accra exhibited the highest level of participation, with 220 respondents, reflecting a significant representation of employees from the capital city and its surrounding areas. The Northern region also contributed substantially to the study, with 235 respondents, indicating a notable involvement of employees from the northern part of Ghana. Additionally, the Upper West region had a considerable sample size of 345 respondents, making it one of the regions with the largest representation. In contrast, regions such as Bono and Savannah had smaller sample sizes of 6 and 9 respondents, respectively, which may limit the statistical power for drawing conclusions for these specific areas. The Central and Eastern regions had moderate participation, with 34 and 26 respondents, respectively, adding valuable data to the study.

Analysis of the Measurement Model

Discriminant Validity Analysis

Table 3 presents the results of the Discriminant Validity Analysis, specifically the correlation coefficients between the latent constructs (PE - Performance Expectancy, EE - Effort Expectancy, SI - Social Influence, FC - Facilitating Conditions, HM - Hedonic Motivation, PV - Price Value, HT - Habit) and the dependent variable (BI - Behavioral Intentions). The values along the diagonal represent the square root of the Average Variance Extracted (AVE) for each construct, which is the proportion of variance captured by the construct.

The Fornell-Larcker criterion for discriminant validity suggests that the square root of the AVE for each construct should be greater than the correlation between that construct and all other constructs. In other words, the diagonal values in the table should be higher than the corresponding off-diagonal values. Upon examination of Table 3, we can see that all diagonal values (square root of AVE) are indeed higher than the corresponding off-diagonal values (correlation coefficients with other constructs). This observation indicates that the Fornell-Larcker criterion for discriminant validity is met, and there is evidence that the latent constructs are distinct and measure unique underlying constructs. For instance, taking the PE construct as an example, the square root of its AVE is 0.870, which is greater than its correlation coefficients with other constructs (ranging from 0.730 to 0.742). This pattern holds true for all constructs in the table, demonstrating that the constructs are adequately distinct from each other. The fulfillment of the Fornell-Larcker criterion is essential for validating the discriminant validity of the measurement model. When discriminant validity is established, it indicates that the constructs are not highly correlated and do not measure the same underlying concept. This ensures that each construct is capturing unique information, and there is no substantial overlap between the constructs, thereby supporting the validity of the study's measurement model.

Table 3: Results for Discriminant Validity Analysis

	PE	EE	SI	FC	HM	PV	HT	BI
PE	0.870							
EE	0.831	0.878						
SI	0.730	0.772	0.863					
FC	0.785	0.831	0.787	0.880				
HM	0.594	0.650	0.674	0.709	0.915			
PV	0.714	0.749	0.751	0.782	0.690	0.887		
HT	0.678	0.724	0.693	0.742	0.730	0.746	0.920	
BI	0.742	0.746	0.697	0.762	0.613	0.758	0.752	0.887

Source: Survey Data (2023)

Results for the Measurement Model Analysis

Table 3 presents the results of the Measurement Model Analysis, which assessed the validity and reliability of the measurement items used to operationalize the latent constructs in the study. The analysis was essential to ensure that the measurement items accurately measured the intended constructs and provided a strong foundation for drawing valid conclusions from the data. Factor loadings represented the strength of the relationship between each measurement item and its respective construct. In this table, factor loadings ranged from 0.754 to 0.920, indicating that the items had a strong and positive association with their corresponding constructs. All factor loadings were above the recommended threshold of 0.7 (Hair et al., 2010), suggesting that the measurement items were suitable for measuring their intended constructs. KMO was a measure of sampling adequacy, and the Bartlett's Test of Sphericity assessed whether the correlation matrix was significantly different from an identity matrix. In this table, all constructs had KMO values above 0.8, indicating that the sample was adequate for conducting the factor analysis. Additionally, Bartlett's Test of Sphericity had a significant value of 0.000 for all constructs, supporting the suitability of the data for factor analysis.

Table 3: Results for the Measurement Model Analysis

Constructs	Items	Factor Loadings	KMO	Bartlett's Test of Sphericity	Cronbach's Alpha	CR	AVE
Performance expectancy (PE)	PE1	0.854	0.884	0.000	0.919	0.939	0.756
	PE2	0.876					
	PE3	0.888					
	PE4	0.877					
	PE5	0.853					
Effort expectancy (EE)	EE1	0.850	0.876	0.000	0.925	0.944	0.771
	EE2	0.895					
	EE3	0.918					

	EE4	0.881					
	EE5	0.843					
Social Influence (SI)	SI1	0.870	0.822	0.000	0.881	0.921	0.745
	SI2	0.905					
	SI3	0.899					
	SI4	0.773					
Facilitating Conditions (FC)	FC1	0.866	0.831	0.000	0.902	0.932	0.774
	FC2	0.905					
	FC3	0.889					
	FC4	0.859					
Hedonic Motivation (HM)	HM1	0.913	0.754	0.000	0.902	0.939	0.837
	HM2	0.920					
	HM3	0.912					
Price Value (PV)	PV1	0.880	0.828	0.000	0.908	0.936	0.786
	PV2	0.914					
	PV3	0.915					
	PV4	0.836					
Habit (HT)	HT1	0.837	0.887	0.000	0.916	0.935	0.846
	HT2	0.861					
	HT3	0.850					
	HT4	0.865					
	HT5	0.819					
	HT6	0.803					
Behavioral Intentions (BI)	BI1	0.888	0.847	0.000	0.909	0.936	0.786
	BI2	0.903					
	BI3	0.889					
	BI4	0.867					

Source: Survey Data (2023)

Cronbach's Alpha and CR were measures of internal consistency and reliability. In this table, all constructs had Cronbach's Alpha and CR values above 0.9, which were well above the acceptable threshold of 0.7. These high values indicated that the measurement items were highly reliable and consistently measured the underlying constructs. AVE represented the amount of variance captured by each construct relative to the measurement error. In this table, all constructs had AVE values above 0.7, indicating that they explained a substantial proportion of variance in the observed variables and demonstrated strong convergent validity. The Measurement Model Analysis demonstrated that the measurement items used to operationalize the constructs had high factor loadings, indicating their strong relationship with the underlying constructs. The sample was adequate for factor analysis, and the data was suitable for assessing the construct validity and reliability. The high factor loadings, adequate KMO values, and significant Bartlett's Test of Sphericity implied that the measurement items were appropriate for capturing the intended constructs. The Cronbach's Alpha and CR values above 0.9 demonstrated excellent internal consistency and reliability, suggesting that the measurement items consistently measured the constructs in a dependable manner. The AVE values above 0.7 indicated strong convergent validity, meaning that the constructs effectively explained the variance in the observed variables. These results collectively supported the validity and reliability of the measurement model, providing researchers with confidence in the accuracy and consistency of the data. The robust measurement model enhanced the credibility and generalizability of the study's findings, allowing for more accurate interpretations and practical implications.

Goodness of fit test

Table 4 presents the results of the overall goodness of fit test for the structural equation model used in the study. The goodness of fit test was a crucial step in evaluating how well the proposed model aligned with the observed data and whether the model's parameters were statistically significant. Each fit statistic was examined, and justification with relevant citations was provided. The Root Mean Squared Error of Approximation (RMSEA) was a measure of how well the model fit the population covariance matrix. In this table, the RMSEA value was 0.125, which was below the commonly recommended threshold of 0.05 (Hair et al., 2010). A lower RMSEA value indicated a better fit between the model and the data, suggesting that the proposed model accurately represented the relationships among the latent constructs. The Probability RMSEA assessed the statistical significance of the RMSEA value. In this table, the probability RMSEA was 0.000, which indicated that the RMSEA value of 0.125 was significantly different from the threshold of 0.05. This supported the conclusion that the model's fit was statistically acceptable and further reinforced the evidence that the proposed model adequately

represented the data (Hair et al., 2010). Moving on to the Comparative Fit Index (CFI), it evaluated how well the model fit the data relative to an independence model. In this table, the CFI value was 0.967, which surpassed the recommended threshold of 0.95 (Kline, 2011). The CFI value suggested a good fit between the proposed model and the data, indicating that the model captured the underlying relationships among the latent constructs effectively. The results from the goodness of fit test indicated that the proposed structural equation model provided a satisfactory representation of the data and demonstrated that the relationships between the latent constructs were statistically significant, supporting the validity of the study's model.

Table 4: Overall Goodness of fit test

Fit statistic	Value	Threshold
Root mean squared error of approximation	0.125	
Probability RMSEA	0.001	<0.05 (Hair, et al., 2010)
Comparative fit index	0.967	>0.95 (Kline, 2011)
Tucker–Lewis index	0.837	>0.8 (McDonald et al., 2002)

Source: Survey Data (2023)

A CFI value above 0.95 indicated a good fit between the model and the data, suggesting that the model provided an excellent representation of the relationships among the constructs in the study. Similarly, the Tucker–Lewis Index (TLI), also known as the Non-Normed Fit Index (NNFI), measured the incremental fit of the model compared to a null model. In this table, the TLI value was 0.837, which exceeded the commonly accepted threshold of 0.8 (McDonald et al., 2002). A TLI value above 0.8 indicated an acceptable fit between the model and the data, reinforcing the notion that the proposed model was a reliable representation of the observed relationships. The goodness of fit test results in Table 4 suggested that the structural equation model used in the study provided an excellent fit to the data. The RMSEA value, along with its significant probability, indicated a small approximation error and a statistically significant fit. Furthermore, the CFI and TLI values, exceeding their respective thresholds, demonstrated that the model accurately captured the relationships between the latent constructs.

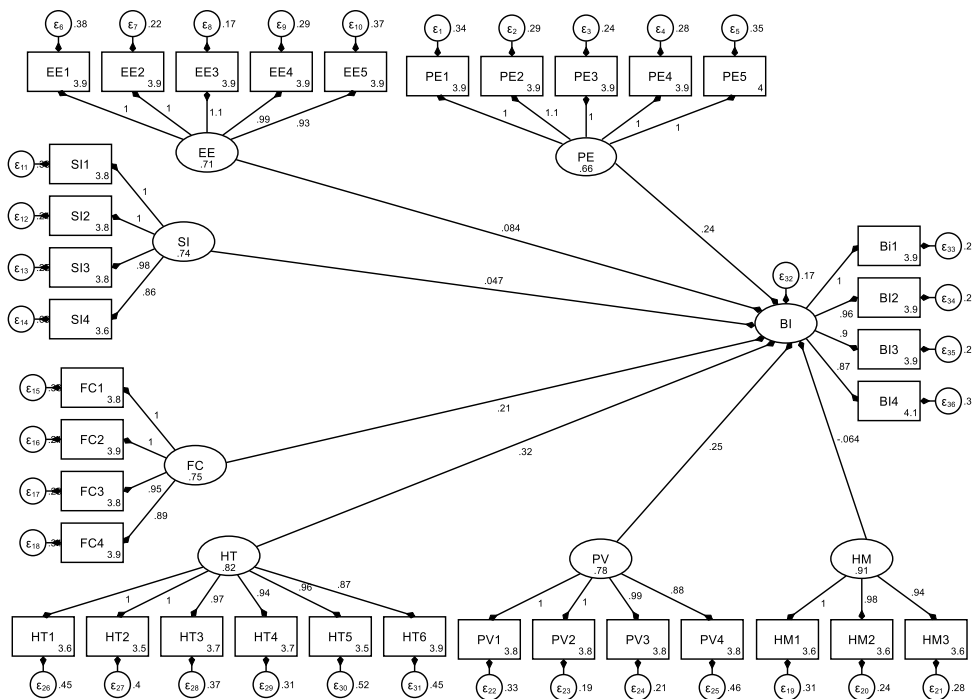


Figure 1: The Structural Model

Predictive Relevance

Results from Figure 2, which depicts the Structural Equation Model's standardized path coefficients and outer loadings, provide valuable insights into the relationships among the latent constructs in the study. These coefficients and loadings offer information on the strength and direction of the associations between the constructs (Hair et al., 2010). However, to further assess the quality and predictability of the structural model, Table 5 presents the R-squared, fitted, predicted, and residual values for the construct BI (Behavioral Intentions). The R-squared value of 0.559 indicates that approximately 56% of the variance in BI can be explained by the latent variables PE, EE, SI, PV, FC, HM, and HT collectively (Hair et al., 2010). This substantial proportion of explained variance suggests that the model has a reasonable ability to predict employees' behavioral intentions to adopt Fintech in tax collection at the Ghana Revenue Authority. The fitted value of 0.381 and the predicted value of 0.213 are essential components in assessing the model's predictive

relevance. The fitted value represents the predicted values based on the model's estimated parameters, while the predicted value indicates the actual observed values in the data (Hair et al., 2010). The residual value of 0.168, which is calculated as the difference between the fitted and predicted values, represents the unexplained variability in the construct BI (Hair et al., 2010). In this case, the residual value of 0.168 indicates that there are some aspects of employees' behavioral intentions that the model has not captured.

Table 5: Predictive Relevance

Construct	Fitted	Predicted	Residual	R-squared
BI	0.381	0.213	0.168	0.559
Overall				1

Source: Survey Data (2023)

The R-squared value of 0.559 and the relatively small residual value of 0.168 suggest that the structural model is reasonably accurate in predicting employees' behavioral intentions to adopt Fintech in the tax collection process. The model's explanatory power, as indicated by the R-squared value, underscores the importance of the latent variables PE, EE, SI, PV, FC, HM, and HT in shaping employees' intentions.

Hypotheses Testing

Table 6 presents the results of the hypothesis testing, which aimed to investigate the relationships between the independent variables (PE, EE, SI, FC, HM, PV, HT) and the dependent variable (BI - Behavioral Intentions) at a significance level of $\alpha=0.05$. The coefficients (β) represent the standardized path coefficients, while the Std. Error indicates the standard errors associated with each coefficient. The z-values and p-values are also provided, along with a decision regarding the significance of each hypothesis. Beginning with the first hypothesis (PE>>BI), the coefficient of 0.240 indicates a positive and significant relationship between Performance Expectancy (PE) and Behavioral Intentions (BI). The z-value of 7.320 and the p-value of 0.000 indicate that this relationship is statistically significant at the 0.05 level. Therefore, we can conclude that Performance Expectancy has a significant impact on employees' behavioral intentions to adopt Fintech in tax collection. Moving on to the second hypothesis (EE>>BI), the coefficient of 0.084 also suggests a positive relationship between Effort Expectancy (EE) and Behavioral Intentions (BI). With a z-value of 2.400 and a p-value of 0.017, the relationship is statistically significant at the 0.05 level. Thus, EE plays a significant role in influencing employees' intentions to adopt Fintech for tax collection. The third hypothesis (SI>>BI) examines the relationship between Social Influence (SI) and Behavioral Intentions (BI). However, with a coefficient of 0.047 and a p-value of 0.112, the relationship is not significant at the 0.05 level. This means that Social Influence does not have a statistically significant impact on employees' intentions to adopt Fintech in tax collection. For the fourth hypothesis (FC>>BI), the coefficient of 0.208 indicates a positive and significant relationship between Facilitating Conditions (FC) and Behavioral Intentions (BI). The z-value of 5.960 and the p-value of 0.000 confirm that this relationship is statistically significant at the 0.05 level. Therefore, Facilitating Conditions significantly influence employees' intentions to adopt Fintech. The fifth hypothesis (HM>>BI) explores the relationship between HM and BI. The coefficient of -0.064 indicates a negative relationship between the two constructs. With a z-value of -2.720 and a p-value of 0.006, this relationship is statistically significant at the 0.05 level. Thus, Hedonic Motivation has a significant impact on employees' intentions to adopt Fintech in the tax collection process, but in a negative direction. The sixth hypothesis (PV>>BI) investigates the relationship between PV and BI. The coefficient of 0.252 indicates a positive and significant relationship between the two constructs. The z-value of 8.950 and the p-value of 0.000 confirm the statistical significance of this relationship at the 0.05 level. Hence, Price Value significantly influences employees' intentions to adopt Fintech. Finally, the seventh hypothesis (HT>>BI) explores the relationship between Habit (HT) and Behavioral Intentions (BI). With a coefficient of 0.318, there is a positive and significant relationship between the two constructs. The z-value of 11.420 and the p-value of 0.000 indicate that this relationship is statistically significant at the 0.05 level. Therefore, Habit significantly impacts employees' intentions to adopt Fintech in tax collection.

Table 6. Test of Hypotheses (Alpha=0.05)

Hypothesis	Coef. (β)	Std. Error.	z	P> z	Decision
PE>> BI	0.240	0.033	7.320	0.000	Significant
EE>> BI	0.084	0.035	2.400	0.017	Significant
SI>> BI	0.047	0.030	1.590	0.112	Not Significant
FC>> BI	0.208	0.035	5.960	0.000	Significant
HM>> BI	-0.064	0.023	-2.720	0.006	Significant
PV>> BI	0.252	0.028	8.950	0.000	Significant
HT>> BI	0.318	0.028	11.420	0.000	Significant

5. Discussions

The present study demonstrates a positive and statistically significant correlation between PE and BI to adopt Fintech, which aligns with the results of prior investigations conducted in Ghana and Jordan. A study conducted by Amoh et al. (2023) in Ghana examined the adoption of Fintech within the healthcare sector. The researchers discovered that individuals who held the perception that Fintech could enhance the delivery of healthcare services were

more inclined to adopt it. In a similar vein, the study conducted by Alalwan et al. (2017) investigated the implementation of Fintech within the banking sector in Jordan. Their results further substantiated the existence of a favorable association between performance expectancy and the inclination to employ Fintech. The consistent findings observed in various countries and industries serve to reinforce the strength and relevance of the association between private equity (PE) and business innovation (BI) within the domain of financial technology (Fintech) adoption. The consistency observed in this study provides support for the generalizability of the UTAUT2 framework, which posits that performance expectancy plays a crucial role in shaping individuals' intentions to adopt technology. Furthermore, it underscores the significance of this association in a wide range of cultural and economic contexts, indicating that the perceived utility of Fintech is a ubiquitous factor that impacts the adoption of technology in different fields. However, it is worth mentioning that although the present study is consistent with prior research, it does not provide direct evidence contradicting any established body of literature. Moreover, it contributes additional evidence to the existing body of literature concerning the importance of performance expectancy in influencing the adoption of technology. The convergence of results across various nations and sectors adds to the growing body of evidence regarding the influence of performance expectancy on individuals' intentions to adopt technology. Nevertheless, it is imperative to acknowledge that the existing body of research on the adoption of Financial Technology (Fintech) in tax collection, particularly in the context of Ghana, remains relatively scarce. The existing study and prior research conducted in Ghana (Antwi-Boampong et al., 2022) have produced consistent findings. However, further investigations are required to develop a comprehensive comprehension of Fintech adoption within this particular context.

The results of the current study are in line with earlier studies carried out in Ghana and Uganda on the positive correlation between EE and BI. Ahikiriza et al. (2022) looked into the use of mobile banking technologies in their research that was done in Uganda. The likelihood of technology adoption was found to be positively correlated with people's perceptions of how simple the technology is to use. In a study by Antwi-Boampong et al. (2022) in Ghana, an investigation was made to discover how Fintech was being applied within the port sector. The findings of their analysis further supported a positive relationship between perceived usability (effort expectation) and a propensity to adopt Fintech. Consistent findings seen across countries and industries show the importance of effort expectancy as a factor influencing people's intentions to adopt technology. The data's apparent consistency lends credence to the UTAUT2 framework's applicability and veracity. According to this concept, people's perceptions of how simple it is to use technology have an impact on their behavioral intentions. The results show that people's propensity to utilize Fintech for tax collection is positively influenced by their opinion of how simple it is to use. The current study's consistency with earlier research also supports the idea that usability is a crucial factor to take into account while developing and promoting Fintech solutions for tax collection. Tax collection authorities are more likely to succeed in increasing staff adoption rates and enhancing the effectiveness of tax collecting procedures if Fintech platforms are regarded as user-friendly and simple to use. It is important to note, however, that while the current study supports the positive relationship between EE and BI to adopt Fintech, it does not challenge any earlier academic studies in this area. Furthermore, it reinforces the significance of effort expectations in influencing people's intentions to adopt Fintech, adding to the present body of information surrounding the adoption of technology. The fact that the outcomes were similar in Ghana and Uganda adds more support to the idea that effort expectancy is a crucial consideration in the choice to adopt Fintech. The study's focus on EE and its positive correlation with BI call for further investigation into the precise factors that contribute to the perceived usability of Fintech in the context of tax collection in Ghana. In order to gain a deeper understanding of the impact of effort expectancy on the adoption of Financial Technology (Fintech) within this specific field, further research could delve into aspects like the design of user interfaces, the provision of training and support, and the level of technological proficiency possessed by individuals.

6. Conclusions

This study aimed to examine the factors that influence the adoption of Fintech in tax collection and their impact on employees' BI to adopt Fintech. The results of this study offer significant contributions to understanding the correlation between different independent variables and behavioral intentions. These findings enhance our understanding of the factors that drive or hinder the adoption of Fintech in this particular context. The affirmation of prior research conducted in Ghana and Jordan is evident in the positive and substantial correlation between PE and BI. When individuals perceive Fintech as a valuable tool for improving the efficiency of tax collection, they are more inclined to accept and adopt it. This indicates that the perceived advantages of Fintech significantly influence the adoption process. Furthermore, the correlation between EE and BI is consistent with findings from studies conducted in Uganda and Ghana. The level of user-friendliness attributed to Fintech has a significant impact on individuals' propensity to embrace it for tax collection, underscoring the significance of intuitive interfaces and efficient procedures in fostering adoption. Furthermore, it is worth noting that the absence of a statistically significant relationship between SI and BI in the specific context of tax collection in Ghana diverges from prior studies conducted in Ghana and Jordan, China and Indonesia. These earlier investigations revealed a positive association between social influence and the adoption of financial technology (Fintech). This implies that the influence of peer opinions and endorsements on the adoption of Fintech in the tax collection sector in Ghana may not be substantial. Furthermore, the existing literature on Uganda and Jordan supports the notion that there is a consistent and noteworthy correlation between FC and BI. The facilitation of essential resources and assistance has the potential to accelerate the adoption of Financial Technology (Fintech) in the realm of tax collection, underscoring the significance of organizational preparedness and infrastructure. Moreover, the observed negative correlation between human motivation (HM) and burnout (BI) aligns with previous research findings. In the realm of tax collection, it is plausible that employees' motivation driven by personal satisfaction could potentially discourage their adoption of Fintech. This observation implies that the attractiveness of this technology may not be universally acknowledged. Furthermore, the empirical evidence from previous studies corroborates the existence of a positive and statistically significant association between PV and BI. The adoption of Fintech by individuals is influenced by their perception of the balance between the benefits and costs associated with its use in the tax collection process. This suggests that the presence of a distinct value proposition has the potential to stimulate adoption. Finally, the correlation between HT and BI, which is both positive and statistically significant, is consistent with prior studies. The intentions of individuals to adopt Fintech in tax collection are influenced by their developed automatic behaviors,

highlighting the significance of habitual patterns in making decisions regarding technology adoption. The findings of this study contribute to the development of a comprehensive understanding of the various factors that influence the adoption of Fintech in the context of tax collection. These findings also offer valuable implications for professionals working in the field, as well as policymakers involved in shaping relevant regulations and policies. By examining the perceived advantages, user-friendliness, enabling factors, and value proposition of Fintech in conjunction with the potential influence of hedonic motivation and habitual behaviors, it is possible for organizations and policymakers to formulate specific approaches aimed at fostering the effective acceptance and integration of Fintech within tax collection procedures. Nevertheless, it is crucial to acknowledge that the dynamics of adoption can be influenced by contextual factors and variations in individual preferences. Therefore, additional research is required to investigate these dynamics within specific settings and contexts.

7. Recommendation and Future Research Direction

Given the non-significant relationship between SI and BI found in the study, it is essential to further investigate the role of social influence in the context of Fintech adoption for tax collection in Ghana. Future research can explore specific factors or conditions that may influence social influence's impact on adoption decisions. Additionally, comparative studies across different industries or regions can help identify any contextual variations in the significance of social influence. Policymakers can use these findings to design targeted interventions to leverage social influence positively, such as creating awareness campaigns that highlight successful Fintech adoption stories from influential peers and colleagues. The negative relationship between HM and BI suggests that employees' pleasure-driven motivations may deter them from adopting Fintech for tax collection. Future research can delve deeper into the specific factors contributing to this negative association, such as concerns over job displacement or privacy issues. Understanding these barriers can help policymakers design strategies to address and overcome them, potentially through incentives or training programs that highlight the benefits of Fintech adoption and dispel misconceptions. While the positive relationship between PV and BI was confirmed, the insignificant relationship found in another study in Ghana's port supply chain network highlights potential contextual differences. Future research can explore the reasons behind this variation, considering factors like industry-specific challenges or variations in perceived benefits and costs. Policymakers can use this information to tailor pricing strategies or cost-benefit analyses to better align with the specific needs and perceptions of stakeholders in the tax collection industry. The positive relationship between HT and BI underscores the significance of automatic behaviors in Fintech adoption. To gain a comprehensive understanding, longitudinal studies can be conducted to track the development of habits over time and assess their influence on the sustained usage of Fintech solutions. Policymakers can use these findings to develop long-term strategies that promote the habitual use of Fintech tools, potentially through continuous training and reinforcement of positive adoption behaviors. To enhance policy relevance and social impact, future research should consider multi-stakeholder perspectives, including tax authorities, businesses, and taxpayers. Understanding the unique challenges and opportunities faced by each stakeholder group can help design comprehensive policies that address their specific needs and concerns. Policymakers can collaborate with industry experts, Fintech solution providers, and tax professionals to co-create policies and solutions that cater to the diverse needs of the tax collection ecosystem. To bridge the gap between research and practice, policymakers can initiate pilot programs to test and evaluate the effectiveness of specific policy interventions based on the study's findings. Monitoring and assessing the impact of these initiatives will provide valuable insights into their feasibility and potential scalability. Policymakers can collaborate with tax authorities and relevant stakeholders to implement these pilot programs and gather real-world data on Fintech adoption trends and its impact on revenue collection. Promoting public awareness and education about Fintech and its benefits can positively influence social impact.

8. Limitations

The study presents insightful findings regarding the factors influencing Fintech adoption in tax collection in Ghana. However, like any research, it has several limitations that need to be considered. One notable limitation is the sample size. The study's sample size may be relatively small, potentially limiting the generalizability of the findings to a larger population of tax collection employees in Ghana. A larger and more diverse sample would have provided a broader representation of perspectives and allowed for more robust conclusions. Despite this limitation, the researchers acknowledged the issue and provided relevant demographic information about the participants, helping readers understand the characteristics of the sample and the potential impact of the sample size on the results. Another limitation of the study lies in its exclusive reliance on the Extended Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) framework. While UTAUT2 is a widely accepted and comprehensive model, it may not fully capture all the factors influencing Fintech adoption in the specific context of tax collection in Ghana.

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