Exploring FinTech Adoption and Sustainable Development Among Working Women in Haryana

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[Abstract] To comprehend the influence of FinTech on "financial inclusion" and sustainable development, this research looks into the determinants that affect working women in Haryana, India, when they adopt the technology. The study uses a broader version of the UTAUT2 paradigm to examine the association between "Behavioral Intention toward FinTech Adoption (BIFA)" and "Performance Expectancy (PE)", "Effort Expectancy (EE)", "Social Influence (SI)", and "Facilitating Conditions (FC)". Furthermore, the research investigates how BIFA mediates the connection between Financial Inclusion through Actual Usage (FIAU) and its subsequent effect on Sustainable Development (SD). The research employed convenience sampling, gathering data from 507 working women. A standardized questionnaire was used to collect responses, and for data analysis PLS-SEM was used. The results show that PE, EE, SI, and FC have a notable impact on BIFA, which in turn positively impacts FIAU. Furthermore, FIAU was observed to significantly contribute to SD, stressing the role that fintech plays in reaching SDGs.

This study underscores the significance of comprehending the elements that influence FinTech adoption among working women, offering crucial insights for decision-makers, financial organizations, and tech innovators. By identifying and overcoming obstacles and enhancing enabling factors, tailored strategies can be crafted to economically empower women and advance gender equality. The research also addresses key gaps in existing literature by extending the UTAUT2 framework and elucidating the intricate relationships among these variables. The results support the creation of FinTech system specifically designed to meet the needs of working women, thereby promoting greater financial inclusion and contributing to socio-economic progress and sustainability.

[Keywords] sustainable development, fintech, financial inclusion, UTAUT2, behavioral intention

Introduction

As new applications continue to emerge, enhancing the quality and financial services' accessibility, the financial sector has been a leader in technological innovation (Schueffel, 2016). Fintech, as an innovation, is rapidly evolving. Siddiqui et al. (2023) define fintech as a swiftly growing concept that leverages technology to revolutionize financial services across various areas, such as digital finance, digital financial advice, digital investments, digital currencies, and digital insurance. Fintech adoption offers solutions that transcend the traditional temporal and geographical constraints of financial operations, effectively addressing conventional limitations. By facilitating functions like fund transfers, balance inquiries, and reducing reliance on physical branches, fintech enhances operational efficiency, fosters financial innovation, and strengthens governance (Kabir et al., 2020).

Moreover, fintech adoption is essential to advancing financial inclusivity, a core aspect of sustainable development. Financial inclusion occurs when fintech solutions meet individuals' and

businesses' transactional, payment, balance-checking, and saving needs at an affordable cost (Senyo & Osabutey, 2020). Through digital financial inclusion, fintech reaches previously underserved populations, offering accessible digital transactions and financial services to people who have historically been shut out of the official monetary system (Demirguc-Kunt et al., 2018). The "National Financial Inclusion Strategy" (NFIS) underscores fintech's role in achieving "financial inclusion" objectives.

Fintech employs financial technologies to enhance financial services' accessibility, affordability, usability, quality, and risk management, thereby promoting sustainability within the financial sector. The advent of fintech represents a paradigm shift towards an era of universally accessible, democratized financial services. As fintech continues to develop, it holds significant potential to impact financial inclusion and sustainability, laying the groundwork for financial services to become not just inventive and efficient but also equitable and accessible to all (Nugroho et al., 2021). It is widely recognized that expanding financial inclusion is crucial, as it not only promotes the broad use of financial services within communities but also significantly enhances individuals' overall well-being (Nugroho et al., 2021).

In this regard, fintech emerges as a powerful tool to effectively implement national financial inclusion strategies. Consistent with the United Nations SDGs, sustainable economic growth is recognized to be significantly influenced by financial inclusion. Among the seventeen key goals on the SDGs agenda, SDGs 8 and 9 are closely linked to financial inclusion (Pandey et al., 2022).

In light of this, the study's proposal for a fintech adoption model seeks to enable financial inclusion while adhering to sustainable development principles. The goal of this investigation is to elucidate how fintech adoption can operationalize digital financial inclusion and advance SD. The study seeks to clarify the intricate relationship between FIAU and BIAF, identify the various factors influencing BIAF adoption, and investigate how FIAU contributes to achieving SDGs.
This study's objective is to suggest actionable strategies for policymakers, financial institutions, and others to utilize fintech as an initiator for inclusive growth and SD. By analyzing the complex interplay between Behavioral Intention towards Fintech Adoption (BIFA), Financial Inclusion by Actual Usage (FIAU), and Sustainable Development, this research aims to shed light on fintech's transformative potential in driving socio-economic progress and advancing the global sustainable development agenda through thorough analysis and empirical evidence.

Hypothesis Development and Literature Review

According to Chavas and Nauges (2020), women's use of technology is boosting worldwide gender equality, economic growth, and women's well-being. To examine the adoption behavior towards technology, several theories have been put up, including the "Unified Theory of Acceptance and Use of Technology" (Bayag & Madimabe, 2024); "Technology Acceptance Model" (Raza et al., 2024). A variety of hypotheses, such as TAM and UTAUT (Davis, 1989), have been previously associated with fintech adoption; further research is necessary to determine the reliability of these findings across different sectors. This article aims to examine the relevance of the enhanced UTAUT 2 model for working women in the state of Haryana. In order to enable this extension, this study looks into the mediating role of BIFA among SI, PE, FC, and FIAU. Additionally, the model examines the effects of SD and FIAU, positing that FIAU may serve as an intermediary in the connection among SD and BIFA. Consequently, the suggested structure presents the UTAUT model as a comprehensive mediating model.

PE and BIFA

PE, according to Nawayseh (2020), is the user's assessment of the degree to which a specific technology or system may help them accomplish their objectives or fulfill their responsibilities. Stated differently, it evaluates the degree to which users feel that adopting the technology would enhance their efficiency and simplify or expedite their job (Martinez and McAndrews 2023). If users feel that using technology would help them perform better, they are more inclined to adopt and use it (Martinez and McAndrews 2023; Senyo and Osabutey 2020). For digital financial services to gain widespread acceptance and usage, user experiences must meet performance expectations (Nawayseh 2020). When people believe e-financial services will facilitate and automate transactions, and help them manage their money better, they are probably going to utilize them (Senyo and Osabutey 2020; Nawayseh 2020). Previous studies have demonstrated a significant correlation among the use of technology and PE. As a result, the research suggests the following hypothesis:

H1: BIFA is significantly influenced by PE.

EE and BIFA

Effort Expectancy (EE) refers to the level of ease with which one can use new systems or technology. This aspect of the UTAUT model indicates users' diminishing interest post-adoption; however, it is anticipated to have a noteworthy and significant effect. during the initial implementation phase (Shah and Khanna, 2024). Effort expectancy pertains to users' perceptions of a system or technology based on its user-friendliness (Ramos, 2017; Chang, 2012). Previous research has explored the connection between consumers' “Behavioral Intention to Adopt FinTech Applications (BIFA)” and effort expectancy. For example, Koloseni and Mandari (2024) developed a model to investigate the link between the BIFA and effort expectancy, finding a significant and positive relationship. Rahi et al. (2019) identified EE as a significant factor influencing the BIFA. This study seeks to evaluate the level of effort women in Haryana expect to invest in using FinTech services, given their anticipated convenience to use and convenience.

H2: EE significantly influence BIFA

SI and BIFA

Social impact refers to the extent to which a user prioritizes the opinions and recommendations of others over their own preferences, thereby encouraging the use of novel technologies or systems. Yi et al. (2021) and Joa and Magsamen-Conrad (2022) noted that a user's belief can be influenced by social norms and compliance. This study, however, has concentrated on the strong connection between SI and consumers' “Behavioral Intention to Adopt FinTech Applications” (BIFA) in different contexts. For instance, in a survey conducted in China, Yi et al. (2021) discovered that SI strongly affects BIFA. Similarly, in 2020, Singh et al. carried out an empirical investigation in India and found that there is a significant relation among SI and consumers' BIFA. Consequently, the following hypothesis is proposed

H3: SI significantly affects BIFA

FC and BIFA

The term "facilitating conditions" (FC) describes how users perceive the extent to which organizational and technological resources can assist in the deployment of a new system. Mun et

al. (2006) claim that FC has a major impact on how new information and communication technologies are adopted and used. Fintech applications, especially those related to online banking, are greatly impacted by FC (Khan et al., 2017). Mulyana et al. (2020) provide evidence that the Facilitating Condition has a major impact on how Fintech is used by customers.

H4: FC significantly affects BIFA.

BIFA and FIAU

A person's willingness to involve in a particular action, like accessing FinTech services, is referred to as BIFA, and the actual execution of that behavior is reflected in actual use (Bajunaied et al. 2023). The "theory of planned behavior", which holds BIFA significantly predicts actual conduct, provides the foundation for this relationship. Numerous studies have demonstrated that behavioral intention can predict the use of technology. As per Chopdar et al. (2018), BIFA serves as a mediator between users' real interactions with FinTech services and their attitudes, perceptions, and outside influences. Drawing from the study's focus and previous theoretical findings, we propose the following hypothesis:

H5: BIFA significantly affects FIAU.

FIAU and SD

Participation in digital financial markets is not only a critical, but also a crucial step in reaching the SDGs by 2030. Digitizing trade payments, wages, and loans offer low-cost business methods, especially for MSMEs. By 2025, these services could potentially generate 6% growth in the global GDP and create 95 million new jobs (Frączek & Urbanek, 2021; Kabakova & Plaksenkov, 2018). SDG9: Infrastructure, industry, and innovation: Using digital financing allows small businesses to innovate and hire more young people to engage in the digital economy (Augsburg et al., 2012). Credit contributes to women's economic empowerment. For women-owned businesses, digital banking services lower administrative and disbursement costs as well as the risk of theft (Augsburg et al., 2012). Restricting their ability to use financial services for poor individuals diminishes the stability of the shared economic growth foundation. Financial inclusion through the usage of ICT and mobile phones is linked to economic growth. (Kabakova & Plaksenkov, 2018; Ozili, 2022). Innovation and sustainable industrialization are promoted by SDG-9.

H6: FIAU significantly affects the SD.

Need of the Study

This study is crucial for multiple stakeholders, including policymakers, financial institutions, and technology developers, particularly within the context of working women in Haryana. Addressing the need for enhanced financial inclusion, the insights from this research provide a detail of the determinants of BIFA, focusing on the critical roles of "Performance Expectancy (PE)", "Effort Expectancy (EE)", "Social Influence (SI)", and "Facilitating Conditions (FC)". By focusing on working women, the study targets a demographic that has historically faced barriers to financial inclusion, offering valuable insights into how these women perceive and adopt FinTech services. This can guide targeted strategies to economically empower them, thereby promoting gender equality and financial independence, aligning with the findings of Chavas and Nauges (2020) on the impact of technology use by women.

Policymakers can leverage these findings to craft more effective financial inclusion strategies. Recognizing the significant impact of SI and FC, policies can be tailored to enhance digital literacy, improve infrastructure, and promote community-based advocacy for FinTech adoption. This aligns with the broader objective of achieving "Sustainable Development Goals", specifically those related to "economic growth" and "gender equality" (Ozili, 2022; Frączek & Urbanek, 2021). Addressing EE and PE can result in the creation of additional intuitive and efficient financial solutions tailored to the needs of working women. Furthermore, this study bridges significant research gaps by extending the UTAUT2 model and incorporating the mediating roles of Behavioral Intention toward FinTech Adoption (BIFA) and Financial Inclusion by Actual Usage (FIAU).

This nuanced understanding of the interplay between these variables addresses a critical gap in the literature, offering a robust framework for how these factors influence sustainable development outcomes (Venkatesh et al., 2003). The linkage between FIAU and sustainable development underscores the broader socio-economic impact of FinTech adoption, demonstrating how advancing FinTech can contribute to achieving SDGs, particularly those related to industry innovation and economic growth (Augsburg et al., 2012). For financial institutions looking to increase their market share, the study offers practical insights. Promoting FinTech adoption among working women not only enhances their financial well-being but also advances the general socioeconomic development of the area, improving standards of living, increasing economic participation, and reducing poverty levels.

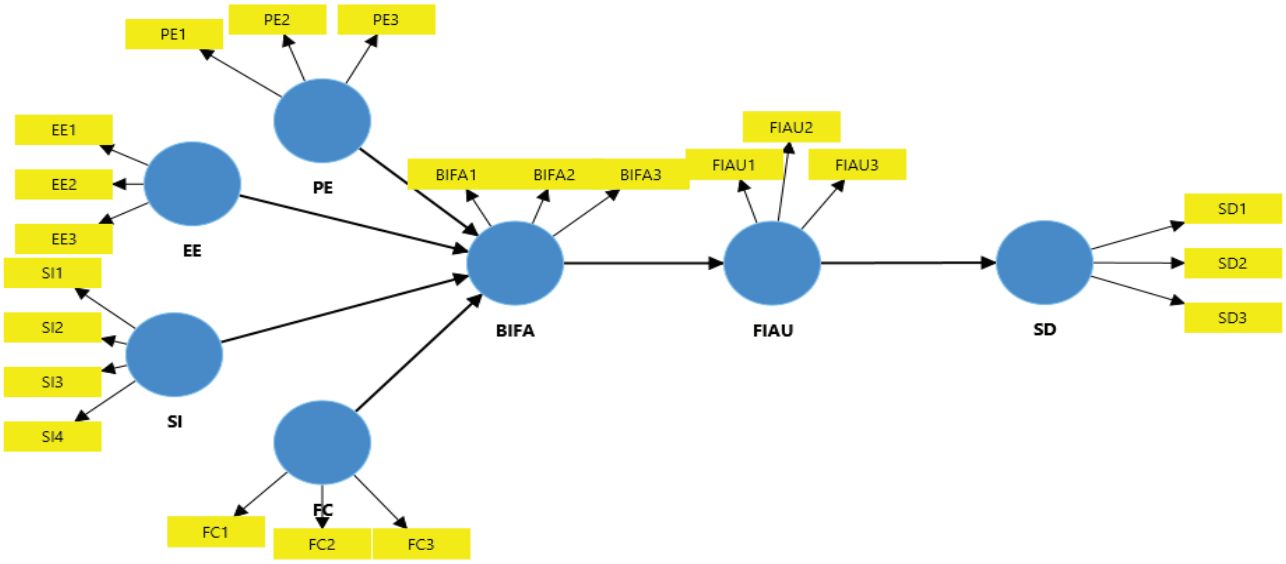
In essence, this study offers a strategic blueprint for understanding and promoting FinTech adoption among working women, with implications that extend beyond financial inclusion to broader socio-economic development and sustainability. The insights generated can inform strategic decisions and policies, driving inclusive growth and fostering a more equitable financial ecosystem.

Conceptual Framework

After reviewing the relevant studies and developing a hypothesis, this study proposes a conceptual framework. The framework includes variables such as Perceived Ease of Use (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Behavioral Intention toward Fintech Adoption (BIFA), Financial Inclusion by Actual Usage (FIAU), and Social Development (SD). Figure 1 presents the conceptual framework, illustrating that BIFA is significantly influenced by PE, EE, SI, and FC. Furthermore, FIAU is influenced by BIFA, while SD is influenced by FIAU.

Figure 1

Research Model



Research Methodology

The research methodology of the study primarily involves two key procedural elements: gathering and analyzing of data. For data collection a well-structured questionnaire was prepared and distributed among working women in Haryana who actively use financial technology to avail financial services. The questionnaire was sent to 600 working women, out of which 543 completed it. After reviewing the completeness of the information provided, 507 questionnaires were found to have all the necessary details. Subsequently 507 responses were included for the analysis. SEM is recognised as highly effective model to test the multivariable relationship. The software Smart-PLS version 4.1.0.2 was employed for the analysis.

Data Analysis and Result

In this research, the use of a reflecting measuring model, which necessitates all latent constructs in the study to be reflective. As per Guenther et al. (2023) to ascertain the suitability of the "reflective measurement model" for PLS-SEM investigations, reliability and validity testing must be conducted. Convergent validity is evaluated by looking at three crucial parameters: "Average Variance Extracted (AVE)", "Factor loadings," and "Composite Reliability" (CR). A strong outer measurement model was indicated by all loadings exceeding the recommended threshold of 0.7, as per the recommendations put forward by Shrestha, (2021). So, the model might be considered moderately good after examining all outer loadings, as depicted below.

Table 1
Validity and Reliability Testing

Items	FL	VIF	α	CR (rho_a)	CR (rho_c)	AVE
Performance Expectancy						
PE1	.865	1.624				
PE2	.715	1.398				
PE3	.867	1.671	0.759	0.802	0.858	0.67
Effort Expectancy						
EE1	.843	1.651				
EE2	.848	1.57				
EE3	.8	1.59	0.777	0.788	0.87	0.69
Social Influence						
SI1	.814	1.757				
SI2	.862	2.141				
SI3	.843	2.002				
SI4	.754	1.57	0.836	0.842	0.891	0.671
Facilitating Conditions						
FC1	.853	1.632				
FC2	.808	1.593				
FC3	.853	1.788	0.789	0.796	0.876	0.702
Behavioural Intention toward Fintech Adoption						
BIFA1	.829	1.671				
BIFA2	.897	2.336				
BIFA3	.876	2.171	0.835	0.837	0.901	0.753
Financial Inclusion by Actual Usage						
FIAU1	.866	1.353				
FIAU2	.769	1.44				
FIAU3	.738	1.438	0.718	0.789	0.835	0.628
Sustainable Development						
SD1	.852	1.468				
SD2	.828	1.666				
SD3	.792	1.63	0.769	0.797	0.864	0.68

After evaluating the outer loadings of all constructs, the next step involves assessing “Composite Reliability” and “convergent validity” using “Average Variance Extracted (AVE)”. CR assesses how well a latent construct is reflected by its items and indicators. Every construct in this research showed CR values exceed the cutoff point of .5 (Hair et al., 2013), suggesting their suitability for further investigation. According to Heseler et al. (2015), reliability is deemed sufficient if α is more than 0.70. The values of Cronbach's α for each of the construct were analyzed and exceeded 0.70, indicating reliable data. Additionally, the AVE values for the constructs are more than the cutoff value of .5, supporting their validity. Utilizing VIF, the model's collinearity was evaluated. Less

than five should be the outer VIF value (Hair et al., 2021). The study's VIF results, which varied from 1.44 to 2.336, showed that the model had no collinearity issues.

To evaluate the data's "discriminant validity", two techniques were used: the HTMT ratio and the Fornell-Larcker test. (refer to Table 2). Discriminant validity is demonstrated if the HTMT is less than .90. The results proved the discriminant validity among the variables as per HTMT. According to the Fornell-Larcker test, each construct's AVE should be higher than its association with other constructs. This observation confirms the study's discriminant validity and is consistent with the standards established by "Fornell and Larcker (1981)".

Table 2
Discriminant Validity

HTMT Matrix

	BIFA	EE	FC	FIAU	PE	SD	SI
BIFA							
EE	.621						
FC	.633	.469					
FIAU	.437	.216	.354				
PE	.512	.502	.418	.173			
SD	.649	.336	.52	.704	.288		
SI	.655	.625	.517	.356	.561	.455	

Fornell-Larcker Test

	BIFA	EE	FC	FIAU	PE	SD	SI
BIFA	.868						
EE	.505	.831					
FC	.517	.369	.838				
FIAU	.361	.176	.287	.793			
PE	.422	.41	.334	.154	.819		
SD	.512	.253	.411	.572	.23	.824	
SI	.549	.51	.42	.29	.47	.362	.819

R^2 and Q^2 values: Henseler et al. (2009) defined R^2 in terms of strength, using criteria of .25, .50, and .75 to categorize it as weak, moderate, or large. The explanation of 45% (BIFA), 13% (FIAU) and 32.7% (SD) variability by all latent constructs under study is significant. Q2 is a technique for assessing the model's predicted accuracy. The Q^2 values of 0.434 (BIFA), 0.091(FIAU) and .098 (SD), suggest that the exo construct predicts the endo construct effectively (refer to Table 3). The model predictive accuracy validity of the model is validated by the presence of a Q^2 value greater than zero. Detection of "collinearity issues" in the study is achieved through the "Variance Inflation Factor (VIF)". It is crucial that the internal VIF value remains below 5 (Daoud, 2017). Analysis of inner VIF in this research reveals the absence of "collinearity issues" as the values range from 1.000 to 1.61.

Table 3
R^2 and Q^2Value, VIF Values

	R^2	R^2adjusted	Q^2		BIFA	EE	FC	FIAU	PE	SD	SI
BIFA	0.451	0.447	0.434	BIFA				1			
FIAU	0.13	0.128	0.091	EE	1.464						
SD	0.327	0.326	0.098	FC	1.286						
				FIAU						1	
				PE	1.375						
				SD							
				SI	1.61						
				BIFA				1			

Effect size: Values below 0.02 suggest small effects, while those medium effects are shown by values between 0.02 and 0.15. Large effects fall within the range of 0.15 to 0.35 and beyond (Hair et al., 2012). Analyzing the F^2 values, the effect of BIFA on FIAU is determined to be medium with an F^2 value of 0.149. Similarly, EE's effect on BIFA, indicated by an F^2 value of 0.059, is also medium. The influence of FC on BIFA is another medium effect via F^2 of 0.117. F^2 of .487 indicates a large impact size in the association between FIAU and SD. In contrast, the effect of PE on BIFA is small, as the F^2 value of 0.017 is below the 0.02 threshold. Lastly, the effect of SI on BIFA, with an F^2 value of 0.079, falls within the medium range.

In summary, medium effect sizes are observed for the relationships between EE and BIFA, FC and BIFA, SI and BIFA, and BIFA and FIAU. A large effect size is noted between FIAU and SD, while a small effect size is seen between PE and BIFA. These assessments highlight the varying degrees of impact among the variables in the data set.

Table 4
Effect Size

Path	f-Square	Effect Size
BIFA -> FIAU	0.149	Medium
EE -> BIFA	0.059	Medium
FC -> BIFA	0.117	Medium
FIAU -> SD	0.487	Large
PE -> BIFA	0.017	Small
SI -> BIFA	0.079	Medium

Path coefficients result: The internal model assesses the hypothesized connections between the study's constructs (Hair et al., 2020). The relevance of each hypothesis is reflected in the path coefficients displayed in Table 5. With a β of 0.113, p of 0.018, and t of 2.374, the analysis revealed a positive relationship between PE and BIFA, confirming Hypothesis 1 (H1). Additionally, a positive association was observed between Effort Expectancy (EE) and BIFA, with a β of 0.218, a p of 0.000, and a t of 3.889, validating Hypothesis 2 (H2).

Additionally, the study found a favorable correlation between BIFA and SI, with a β of 0.263, a p of 0.000, and a t of 4.388, confirming Hypothesis 3 (H3). Additionally, Facilitating Conditions (FC) showed a positive connection with BIFA, evidenced by a β of 0.288, a p of 0.000, and a t of 5.660, thus supporting Hypothesis 4 (H4). Furthermore, Behavioral Intention toward Fintech Adoption (BIFA) was positively related to Financial Inclusion by Actual Usage (FIAU) with a β of 0.361, a p of 0.000, and a t of 6.287, validating Hypothesis 5 (H5). Lastly, a highly positive relationship was found between FIAU and Sustainable Development (SD), with a β of 0.572, a p of 0.000, and a t of 13.070, strongly supporting Hypothesis 6 (H6).

The indirect effects further reinforce these relationships. For example, the influence of Performance Expectancy (PE) on Financial Inclusion by Actual Usage (FIAU) through Behavioral Intention toward Fintech Adoption (BIFA) (H7) is supported, showing a β of 0.041, a p of 0.024, and a t of 2.260. Similarly, the effect of Effort Expectancy (EE) on FIAU through BIFA (H8) is strongly supported with a β of 0.079, a p of 0.000, and a t of 3.563. The impacts of "Social Influence" and FC on FIAU through BIFA (H9 and H10) are also significant, with β of 0.095 and 0.104 respectively, and both showing a p value of 0.000, validating their hypotheses.

Additionally, the study verifies the indirect impact of Behavioral Intention toward Fintech Adoption (BIFA) on Sustainable Development (SD) through Financial Inclusion by Actual Usage (FIAU) (H11), with a β of 0.206, a p of 0.000, and a t of 4.829. Additionally, the sequential indirect effects from PE, EE, SI, and FC to SD via BIFA and FIAU (H12, H13, H14, and H15) are all significant, proving that the proposed model is resilient. These findings collectively underscore the important influence of behavioral intention on fintech adoption and its effects on financial inclusion and sustainable development.

Table 5

Hypothesis Testing

	H	O Original Sample	M Sample Mean	STDEV	T Statistics	P Values	Decision
PE -> BIFA	H1	0.113	0.115	0.048	2.374	0.018	Supported
EE -> BIFA	H2	0.218	0.219	0.056	3.889	0.000	Supported
SI -> BIFA	H3	0.263	0.264	0.06	4.388	0.000	Supported
FC -> BIFA	H4	0.288	0.287	0.051	5.66	0.000	Supported
BIFA -> FIAU	H5	0.361	0.362	0.057	6.287	0.000	Supported
FIAU -> SD	H6	0.572	0.576	0.044	13.07	0.000	Supported
PE -> BIFA -> FIAU	H7	0.041	0.041	0.018	2.26	0.024	Supported
EE -> BIFA -> FIAU	H8	0.079	0.079	0.022	3.563	0.000	Supported
SI -> BIFA -> FIAU	H9	0.095	0.096	0.027	3.513	0.000	Supported
FC -> BIFA -> FIAU	H10	0.104	0.105	0.029	3.618	0.000	Supported
BIFA -> FIAU -> SD	H11	0.206	0.21	0.043	4.829	0.000	Supported
PE -> BIFA -> FIAU -> SD	H12	0.023	0.024	0.011	2.141	0.032	Supported
EE -> BIFA -> FIAU -> SD	H13	0.045	0.045	0.014	3.291	0.001	Supported
SI -> BIFA -> FIAU -> SD	H14	0.054	0.055	0.017	3.16	0.002	Supported
FC -> BIFA -> FIAU -> SD	H15	0.059	0.061	0.019	3.107	0.002	Supported

Discussion

Effect of PE on BIFA

The first hypothesis is accepted, and the results are supported by the studies of Martinez and McAndrews (2023), Senyo and Osabutey (2020). These studies highlight the importance of PE in usage of new technologies. For working women in Haryana, ensuring that FinTech services are perceived as efficient and beneficial that can drive higher adoption rates, thereby promoting financial inclusion and empowerment.

Effect of EE on BIFA

The second hypothesis is accepted, aligning with findings from Senyo and Osabutey (2020), Aseng (2020), and Ramos (2017). These studies highlight that EE strongly influences users' BIFA. In the context of working women in Haryana, this implies that simplifying the user interface and reducing the complexity of FinTech applications can significantly boost their willingness to adopt these services. This is crucial for achieving broader financial inclusion and empowering women through accessible financial technologies.

Effect of SI on BIFA

The third hypothesis is supported consistent with Yi et al. (2021) and Joa and Magsamen-Conrad (2022). These studies demonstrate the significant impact of SI on BIFA, showing that the opinions and behaviors of others are essential to the uptake of FinTech services. This highlights the need for targeted awareness campaigns and community engagement to enhance the acceptance and use of FinTech among this demographic.

Effect of FC on BIFA

The fourth hypothesis is accepted, supporting findings from Mun et al. (2006) and Mulyana et al. (2020). In case of working women in Haryana, providing adequate support structures, such as customer service, training programs, and reliable internet access, can enhance their ability to use FinTech services effectively. This, in turn, facilitates greater financial inclusion and supports their economic empowerment.

BIFA and FIAU

The fifth hypothesis is accepted, result aligned with Bajunaied et al. (2023). These studies demonstrate that BIFA is a significant predictor of FIAU, indicating that people are more probably utilize FinTech services when they have a strong desire to do so. This finding underscores the importance of fostering positive behavioral intentions towards FinTech among working women in Haryana, as this can lead to actual usage and, consequently, greater financial inclusion.

FIAU and SD

The sixth hypothesis is accepted, consistent with study of Frączek and Urbanek (2021). These studies highlight that financial inclusion by actual usage significantly contributes to sustainable development by promoting economic growth, improving living standards, and reducing poverty.

Mediating Effects

The study also confirms the mediating roles of BIFA between PE, EE, SI, FC, and FIAU, and of FIAU between BIFA and SD. These results demonstrate how important BIFA is to the acceptance and effective application of FinTech services., ultimately leading to increased FIAU and support

for sustainable development. This actual usage is crucial for achieving sustainable development (SD), as it enables broader access to financial resources and services, fostering economic growth and social inclusion.

Conclusion

This investigation looked at the elements of FinTech adoption among working women in Haryana, extending the UTAUT2 model by incorporating the mediating roles of Behavioral Intention toward FinTech Adoption (BIFA) and Financial Inclusion by Actual Usage (FIAU). The hypotheses developed were grounded in well-established theories such as UTAUT2, and TAM. Our findings confirm the significant positive effects of "Performance Expectancy" (PE), "Effort Expectancy (EE)", "Social Influence (SI)", and "Facilitating Conditions (FC)" on BIFA, aligned with previous studies. Additionally, BIFA was shown to significantly influence FIAU, affirming that strong behavioral intentions are likely to translate into actual usage of FinTech services. Furthermore, FIAU significantly influenced the SD, highlighting how crucial financial inclusion is, in achieving broader economic and social goals. The mediating roles of BIFA and FIAU highlight the intricate pathways through which FinTech adoption can promote sustainable development.

Implications of the Research

The study has various significant consequences for improving FinTech adoption among working women in Haryana, with broader relevance to similar contexts. Policymakers must recognize the critical roles of PE, EE. SI, and FC in driving FinTech adoption. Targeted marketing and awareness campaigns should leverage social networks and influencers to promote FinTech services. Engaging community leaders, family members, and peer groups can effectively advocate for the benefits of FinTech, enhancing its acceptance and usage among women. For FinTech developers and service providers, prioritizing the design of intuitive and easy-to-use interfaces is essential. Simplifying the user experience can significantly reduce perceived barriers to adoption, encouraging working women to utilize these services. This approach should include user-friendly mobile applications, clear instructions, and responsive customer support. Additionally, governments and organizations must invest in the necessary infrastructure, such as improving internet connectivity and providing technical support. It is essential to provide working women with the necessary resources to effectively utilize FinTech services, including offering training programs to improve digital skills and financial literacy.

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