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WOMEN FINTECH ADOPTION - A BASE TAM FRAMEWORK

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Abstract

Financial technologies has transformed the delivery of financial services business by increasing access, efficiency, and ease. However, there is still a persistent gender disparity in digital financial adoption, with women falling behind males in Fintech usage. The Technology Acceptance Model (TAM) is used as a theoretical framework under the research study analyzing the elements that influence behavioral intention (BI) of women to embrace Financial technologies in delivering services and their actual usage. The study specifically looks at the impact of perceived ease of use and perceived usefulness on behavioral intention and the following relationship between BI and actual usage behavior (AB) among women in Ernakulam, India.

Google Forms was used to deliver a structured questionnaire and gather responses from women from different ages, educational backgrounds, and employment positions. Using SPSS, the collected data were examined with the help of Pearson Correlation Analysis to ascertain the correlations between variables, Confirmatory Factor Analysis (CFA) for validating the constructs, and Cronbach's Alpha for reliability testing. The study revealed, PEU and PU have a positive association, indicating that perceived utility is much increased

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by ease of use. Furthermore, it was discovered that PU was a significant predictor of BI, demonstrating that women's propensity to use Fintech services increases when they believe they will be advantageous. Stronger behavioral intention leads into real intention to use Fintech services, as the study further demonstrates by confirming a significant correlation between BI and AB.

The majority of Fintech users are employed and have higher education levels, according to descriptive statistics, highlighting the importance of digital literacy and financial independence in adoption. Mobile banking apps and UPI payment systems are the Fintech services that women use the most, whereas digital wallets and "Buy Now, Pay Later" (BNPL) services are less popular. These findings imply that women's adoption of Fintech is significantly influenced by usability, security concerns, and financial literacy.

By highlighting the significance of user-friendly Fintech applications and awareness campaigns specifically designed for women. To address the gender disparities in usage of fintech services, policymakers and financial service providers should prioritize improving security features, streamlining Fintech platforms, and supporting financial literacy programs. To better understand women's Fintech adoption behavior, future studies could examine other elements as perceived security, trust, and sociocultural impacts.

Keywords: Fintech adoption, women, perceived usefulness, perceived ease of use, actual usage behavior, behavioral intention, financial inclusion.

Introduction

The world Fintech adoption rate of China and India is 87%[3]. Globally the fintech adoption rate of women compared with men in using digital financial services was 15%-20% according to OECD 2021[4].This forms the background of the research study. The research study aim to understand and analysis factors influencing behaviour intention to use (BI) and actual behaviour among women in Ernakulam, Kochi . The objectives shall be briefed as

1.To examine the influence of Perceived ease of use (PEU) and Perceived usefulness (PU) behavioral intention to use Fintech among women.

2.To asses the link between behavioral intention (BI) and Actual usage (AU) of Fintech services among women.

Among the demographic, gender plan a vital role in influening techology usgae [5]. The studies indicate that factors such as individual characteristics of women contribute the disparity in using digital financial services[6]. This call for the need of such research to develop a specifics strategies in influencing fintech adoption by women.

Review of Literature

Financial technology, also known as Fintech, collaboration of technology and financial services to accelerate their efficiency, accessibility, and convenience. Fintech's quick evolution has considerably impacted digital financial services by offering consumers smooth

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and creative alternatives [10]. The introduction of digital payment systems, e-wallets, mobile banking, investment platforms, and loan applications transformed traditional banking procedures[11].Digital payments have grown rapidly among Fintech applications, contributing to increased financial inclusion and transaction efficiency [14]. Fintech has facilitated larger participation in economic activities by lowering transaction costs and increasing accessibility, particularly for marginalized populations, such as women [13]. Fintech's ability to provide individualized financial solutions through banks and financial institutions has increased women's economic involvement, boosting financial independence and empowerment [12].

Theoretical Framework

The variables identified for the study were perceived usefulness, perceived ease of use, actual usage behaviour and behaviour intention to use. The PEU was defined as the individuals easiness in employing the fintech services or fintech applications. Perceived usefulness was defined as the how useful the fintech services in performing the banking and financial transactions. Behavioral intention to use was defined as the as an individual strong desire to perform the fintech services. Actual usage behaviour was defined as the actual usage pattern of fintech services.

Research Methodology

This research study aims to understand and analysis the influence of PEU and PU on BI to use Fintech and further assessing the relationship between BI and Actual Usage (AB) of Fintech among women. The research study is of descriptive in nature , as it seeks to analyze the link exsist between these identified variables and their impact on Fintech adoption.

Population and Sampling

The study focuses on women as the target population due to their lower adoption rate of Fintech services compared to men. Given the persistent gender gap in digital financial inclusion, understanding the factors influencing women's adoption of Fintech is crucial. The study is geographically limited to Ernakulam city (Kochi, India) to ensure contextual relevance.

Data Collection and Instrumentation

Primary data under the research study was collected through a structured questionnaire, which was administered via Google Forms to ensure accessibility and ease of response collection. The questionnaire was designed based on established measurement scales for PEU, PU, BI, and AB. Secondary data was utilized to construct the theoretical framework and review existing literature.

Data Analysis Techniques

Statistical Package for Social Sciences (SPSS) was employed to ensure robust statistical evaluation. The study employed:

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- Cronbach's Alpha for testing the reliability of the measurement scales identified from the previous studies.
- Confirmatory Factor Analysis (CFA) to estimate the validity of the construct
- Pearson Correlation Analysis to establish the relationships between PEU, PU, BI, and AB.

These analytical techniques ensured the validity and reliability of the findings, allowing for meaningful conclusions regarding Fintech adoption among women in Ernakulam.

Data presentation and Findings

Table 1 : Statistical summary of demographic variables

Variable	Categories	Frequency (N)	Percentage (%)
Age	18-25 years	9	12.0%
	25-35 years	55	73.3%
	Above 35 years	11	14.7%
Education Level	Graduation	19	25.3%
	Post-Graduation	54	72.0%
	Others	2	2.7%
Employment Status	Employed	68	90.7%
	Not Employed	7	9.3%
Marriage Status	Single	44	58.7%
	Married	31	41.3%
Fintech Usage (Do you use Fintech?)	Yes	61	81.3%
	No	14	18.7%
Most Used Fintech Service (if applicable)	Mobile Banking Apps	53	86.9%
	Digital Wallets (e.g., Paytm, GPay)	8	13.1%
	UPI Payment Systems	37	60.7%

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	Online Investment Platforms	15	24.6%
	BNPL (Buy Now Pay Later)	5	8.2%
	Others	3	4.9%

Interpretation of Statistical summary of demographic variables

The analysis of demographic profile provides critical insights into fintech adoption among women in Ernakulam. The age distribution of respondents indicates that the majority (73.3%) fall within the 25–35 age group, suggesting that fintech adoption is most prevalent among young to middle-aged women, while the adoption rate is relatively lower among the 18–25 (12.0%) and above 35 (14.7%) age groups. Educational attainment appears to be a significant determinant, as 72.0% of respondents have completed post-graduation and 25.3% hold a graduation degree, implying that individuals with higher education are more inclined to use fintech services. Employment status also plays a crucial role, with 90.7% of respondents being employed, indicating that financial independence positively influences fintech usage. Marital status appears to have a limited impact on fintech adoption, as both married (58.7%) and unmarried (41.3%) respondents demonstrate considerable engagement with digital financial services. The data further reveals a high overall fintech adoption rate, with 81.3% of respondents actively using fintech services, whereas only 18.7% do not engage with digital financial platforms.

Regarding the specific fintech services used, mobile banking apps (86.9%) emerge as the most widely adopted, followed by UPI payment systems (60.7%) and online investment platforms (24.6%), indicating a strong preference for digital banking and transaction-based services. Digital wallets, such as Paytm and Google Pay, are used by 13.1% of respondents, while Buy Now Pay Later (BNPL) services have a lower adoption rate (8.2%), possibly due to concerns about financial risk and debt management. These findings highlight the role of education, employment, and financial independence in driving fintech adoption, while factors such as digital literacy, risk perception, and financial security concerns may serve as barriers, particularly for older and non-working women.

Table 2: **Measurement after confirmation factor analysis**

Construct	**Standard Loading**	**Mean**	**Standard Deviation**	**Cronbach's Alpha**
Perceived Ease of Use	(.92, .90, .75)	4.19	0.7	0.8861

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(PEU)				
Learning to use fintech is easy	.85*	4.19	0.7	
Using fintech is clear and understandable	.79*	4.19	0.7	
New updates and features of Fintech apps are easy to use.	.84*	4.19	0.7	
Overall, fintech is easy to use	.96*	4.19	0.7	
Perceived Usefulness (PU)	(.83, .83, .64)	4.52	0.54	0.8262
Using fintech can make one productive	.66*	4.52	0.54	
Fintech can make things easier	.84*	4.52	0.54	
Overall, fintech is useful	.89*	4.52	0.54	
Behavioral Intention (BI)	(.90, .89, .76)	4.35	0.69	0.8599
I intend to use fintech services	.87*	4.35	0.69	
I plan to adopt fintech in daily transactions	.94*	4.35	0.69	
People should adopt fintech	.81*	4.35	0.69	
Actual Behavior (AB)	(.93, .87, .83)	4.23	0.7	0.7854
I use fintech services regularly	.94*	4.23	0.7	
I rely on fintech for financial transactions	.93*	4.23	0.7	

The high mean values (above 4) suggest that respondents strongly agree on fintech adoption, with Perceived Usefulness (PU) having the highest mean (4.52), emphasizing fintech's perceived benefits. The lowest standard deviation (0.54) for PU indicates consistent perspectives on its value, but Perceived Ease of Use (PEU), Behavioral Intention (BI), and

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Actual Behavior (AB) have considerable variability (about 0.70), indicating overall agreement with minor discrepancies. These data indicate that fintech adoption among women in Ernakulam is primarily motivated by perceived benefits and simplicity of use, highlighting the need for fintech providers to improve usability while maintaining practical value.The aggregate Cronbach's Alpha of 0.9467 demonstrates excellent internal consistency across all of the variables in the study.

Table 3 : Pearson Correlation Matrix

Variables	PEU	PU	BI	AB
PEU	1	0.811	0.752	0.655
PU	0.811	1	0.827	0.691
BI	0.752	0.827	1	0.873
AB	0.655	0.691	0.873	1

From the above table, it is inferred that a strong positive relation exists between PEU and PU with the r = 0.811 , P<).001. This indicate that a strong predictor relationship exist between perceived usefulness and perceived ease of use. The increasing the easiness in use of fintech application also led to the increase of usefulness of fintech services or applications.

There exsist a strong positively related with PEU and BI which could be confirmed by the r value (r =0.0827, p<0.001). It confirms that the greater the usefulness of fintech applications more and stronger would be the intention to use the fintech applications.

The value of the correlation analysis confirm with the idea that a strong IU the fintech services significantly increases the chance of uasge the fintech services.This can be confirmed by the r value (r= 0.873, p=0.001).The result also relieves that the stronger with the perceived usefulness leads to the actual usage behavioral for the individuals.

Discussion

The major population under study falls in the age category between 25 years and 35 years. The study focused on the women population as they were showed less fintech adoption rate than men which confirmed in previous studies. The result of the study align with the previous studies that the variables such as usefulness and perceived ease of use are the strong predictors of behavioral intention use. A strong relation exists between perceived ease of use and perceived usefulness with indirectly influence the intention to use fintech. It implies an individuals especially the women, intention to use can be accelerated if the ease of using the

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fintech services and usefulness of such fintech services persist.From the study it proves that a link exist between the behavioral intention to use and actual usage behaviors. Stronger the intention to use stronger would be the actual usage behaviour.

Conclusion

The factors such as perceived ease of use and perceived usfulness have strong and significant role in influencing the usage intention in using fintech services and application. This implies to create a strong intention to use the fintech services and application by making the fintech applications user-friendly and easiness in handling the application or services. The actual usage behaviour is strongly influenced by the usage intention use of fintech services. This result was supported by the correlation values and statistical siginficance with aligned with the TAM framework. The future researchers can focus on the other factors such trust, security and moderating effect on fintech adoption which would provide a deeper understanding and insights to the fintech treads.

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