

Exploring the Interplay Between Fintech Utilization and Cyber Security Awareness

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ARTICLE INFO

Keywords: Cyber Security, Fintech, Frequency of Using Fintech, Self-Efficacy and Trust

Received : 5 January

Revised : 18 February

Accepted: 20 March

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ABSTRACT

To examine the impact of fintech on cyber security awareness. here the study examines the variables trust, self-efficacy and frequency of using fintech have any role in enhancing the cyber security awareness among the customers. in the study, the researcher collected primary data with the help of a questionnaire and secondary data from different magazines, articles and newspapers. Then the researcher used correlation coefficient, regression and ANOVA to analyse the data. The study found that self-efficacy can enhance cyber security awareness among customers and that trust also contribut8i8ng to the creation of awareness but the frequency of using fintech doesn't have much impact on cyber security awareness. then the study also found that the frequency of using fintech does not have any significant difference across the different age groups but self-efficacy and trust have significant differences. The outcome of the study can be used by the fintech companies to understand how to enhance the awareness of cyber security among the customers. The company can make policies and facilitate services to enhance the trust and self-efficacy among the customers because those factors contribute to cyber security awareness. through enhancing cyber security companies and customers can eliminate information theft by hackers

INTRODUCTION

In recent years the use of financial technology among people become a part of their lives (Vinmalar J & Davis, 2019). Financial technology offers better access convenience and efficiency in the financial transaction. Customers are using mobile-based applications and online banking facilities to make transactions with the business and they are becoming familiar with all these things (Sanjai, 2021). However financial technology helps people access financial services easily but the safety of the information has become a question mark. So the improved use of fintech enhanced the importance of cyber security to safeguard information while entering into digital transactions (Feyen et al., n.d, 2021). As a result of the development of the fintech platforms in the financial transaction cyber risk become an important aspect, which is to be considered as a critical problem to be solved. Even though financial technology facilitates cyber security measures to avoid the risk of information theft, hackers are trying to find loopholes in cyber security measures (Alodhiani, 2023).

The impact of the use of fintech on cyber security awareness can be seen from different perspectives. One is the use of financial technology to facilitate more knowledge on the security measures to protect the information from hackers (Alduhaidahawi et al., 2020). Then customers and businesses are now becoming more vigilant about their financial information and they are hiding all their personal information by understanding the cyber risks.

The fintech companies are also concentrating on cyber security measures to protect the information of their customers (Alduhaidahawi et al., 2020) because hackers will always be aware of the technologies used by companies to offer better services to their customers. So the hacker will always search for the drawbacks of the software used by the fintech companies. The companies ensure the efficiency and security of their platforms to keep away from the heavy losses due to the hacking of the personal or financial information of their customers. The companies are offering that kind of cyber security to enhance the trust and security among the customer otherwise the customers will choose any other platforms to deal with their financial services (Li & Liu, 2021). Nowadays different kinds of platforms are there to access financial services with the help of technology so customers are selecting the platforms based on the safety provided by the different platforms. The financial services industry is changing quickly, and it is now critical for businesses and customers to have reliable cyber security measures. According to Li and Liu (2021), businesses are realising more and more how crucial it is to provide complete cyber security solutions in order to cultivate security and confidence among their clientele. In a time when digital transactions are commonplace, clients are well aware of the possible dangers connected to doing financial transactions online. Consequently, businesses that put a high priority on cyber security not only protect sensitive consumer data but also foster brand confidence. the

The customers have different alternatives due to the enhancement of the technology in the field of finance. Different platforms are there which are offering the financial services to the customers with slight variations in their features. All the platforms have different kinds of security measures and customers can

choose the platform based on their preference. The companies are also prefers the platforms based on the security measures provided by them to secure their information. The cyber security measures should be ensured by the platforms to protect the information about the individual from hacking because the consequences of cyber security breaches become beyond the monetary damages for the business and the individuals. So it will be a crucial problem to the business in managing the clients and their trust in the business. That's why business is investing more in the cyber security. The cyber security is not just a compliance to law but it becomes a part of the strategies of a business to protect their important information, brand image and for the long term existence in the market. The business units are making more investment in the cyber security to enhance the trust and confidence of the customers and to protect them self from the hackers. whatever be the security measures offered by the companies the customers should have the awareness on the security measures. otherwise the security measures offered by the platforms doesn't have any role in the protection of the information. Because the measures are offered by the platforms are available for the customers and they should use it for the protection of their sensitive information. If the customers are not utilizing these measures the information are safe in the platforms. So to ensure the cyber security the customers are to be aware about the security measures offered by the fintech platform that means the awareness level of the cutomers have a role in the cyber security. In order to combat changing threats and guarantee clients the safety and security of their financial transactions, businesses need to be always on the lookout for ways to improve and adapt their cyber security policies. Because of the increased use of fintech the importance of awareness about cyber security is also increased. The users should be educated about cyber crimes, information theft, security measures and practices to be followed to avoid the cyber risks. The awareness of the cyber risks will motivate the people to take care while entering into the digital transactions. The fintech platforms provide some security measures so the users are familiar with the measures to protect their information from hackers (Aldboush & Ferdous, 2023). But many people are there who are using financial technology platforms without any awareness of cyber crimes and these people are not at all caring about the security measures. So these kinds of people have become an element that is considered a loophole for hackers to enter into cyber crimes. So awareness of cyber security is required to reduce cyber crimes. Here the paper concentrates on the impact of fintech use on the awareness of cyber security by considering what factor is leading to the awareness of cyber security among the users. Here the self-efficacy in using financial technology, trust in the fintech applications and the frequency of using the fintech application are taken as independent variables and the awareness of the cyber security measure is taken as the dependent variable. The study will help to understand which factor is contributing more to the cyber security awareness among the customers and the result will help the policymakers to take corrective measures to enhance the better awareness of cyber security among the users of the fintech platforms.

LITERATURE REVIEW

Nowadays the utilization of digital payment applications is increasing rapidly and customers are highly satisfied with those digital platforms because of the ease of doing financial transactions using the technology (Sanjai, 2021), but only a few customers are aware of the security measures. With the rapid enhancement in the use of the internet or mobile phone, the concept of cyber security become an important factor, which is to be considered as a priority to secure personal and financial information from the world of hackers. simple attacks by the hackers may include some spam mails or some other way but the sometime the hackers will choose different softwares to hack the information realted to the people and they hack the i9nformation very easily without the knowledge of the individual, all the cyber crimes are based on the awareness level of the individual about the cyber security measures. some people are not at all aware about the security measures and they will neglect the security measures provided by the system so that will become one of the reason to easy access of the information. But some people may have a little knowledge about the cyber security, eventhough they6 have awareness they may not be ready to accept the security alerts, it is also a symbol of negligence. Only few are there who have awareness on cyber security and they are ready to accept the cyber security alerts (Wang et al., 2022). The cyber security threats are due to the lack of awareness on cyber security measure among the users of the innovative technology. The increased use of internet the awareness and knowledge about the cyber security become emergency (Zwilling et al., 2022) and (Zwilling et al., 2022) focused on four countries namely Slovenia, Israel, Poland and turkey . the study found that there is significant differences in different countries with regards to the awareness, knowledge and behavior that exhibit by the people. Cyber security awareness is necessary among the users of fintech (Kant, 2023) because personal and financial information theft will lead to heavy financial loss. Information theft through cyber attacks the company will loss its customer's trust, goodwill, share value, market standing, etc, so through creating cyber security awareness cyber crimes can be eliminated to protect the customers and the company from information theft (Lesjak et al., 2019). Trust in using fintech applications will create satisfaction among the customers (Mainardes et al., 2023) and (Alwi et al., 2019) the satisfaction is measured with the help of the variables convenience, ease of use, security and service quality. Major studies are conducted in the area of satisfaction with the fintech application and factors contributing to the satisfaction (Chen et al., 2016). Then related to cyber security awareness, studies are conducted related to cybercrime and awareness among students (Lesjak et al., 2019), (Kant, 2023). The use of financial technology has an impact on cyber security awareness (Alduhaidahawi et al., 2020) But there lack of studies on the impact of the use of fintech on cyber security awareness using the variables self-efficacy, trust and frequency in using fintech applications. The studies related to the cyber security will be helpful for the government and policy makers to develop different kinds of training programs to enhance the cyber security awareness among the general people within the country and it will helps to reduce the loss of personal and financial information of the people within the

country (Zwilling et al., 2022). Nevertheless, even with these efforts, there is still a significant vacuum in the research on the precise effects of fintech use on cyber security awareness, especially when it comes to the factors of trust, self-efficacy, and frequency of fintech use. These factors are important in determining how people feel and behave when it comes to cyber security procedures, but little is known about how they interact in the fintech setting.

Through the study on the cyber security awareness it is possible to reduce the gap between the knowledge and the real world utilization of the cyber security measures and the regulatory authorities can also take decision on how to provide guidelines to the people based on their awareness level. The understanding on the relationship between the use of fintech application, trust, self efficacy and cyber security, offer significant contribution to identify the factors leading to the cyber security awareness among the consumers. These kind of studies will help to give a basic idea on the cyber security awareness and there by the authorities can conduct education programmes or any training programs to the people to get more knowledge on the world of digital technology and the crime that happening in the digital world and how to get away themselves from the information theft that happening in the digital world. So through enhancing the knowledge and awareness on cyber security issues and measures, the cyber attacks can be reduced to minimum but for that these kind of studies are needed to understand the current status of knowledge and awareness of the consumers about the digital world and cyber attacks. Through analysing the connection between the fintech utilization and the awareness on the cyber security measures by considering the frequency of using fintech, trust and self efficacy, giving a practical findings to the authorities about the common people's understanding on the cyber security.

METHODOLOGY

The study is analytical and the study concentrated on the impact of the use of fintech applications on cyber security awareness among the customers of fintech applications. Here the researcher used Self Efficacy (SE), Trust (T) and Frequency of using Fintech (F) as the independent variable and awareness of cyber security (ACS) as the dependent variable. The population of the study is the customers of fintech services and the researcher selected a sample based on the convenient sampling method. The researcher used a questionnaire to collect data and used correlation coefficient, regression analysis and ANOVA for the data analysis.

Conceptual Framework

The digital world facilitating more convenient and easy way to do financial transactions without physical presence and people are utilizing these kind of technology in their day today life because of the convenience that they enjoying from the financial technology (Asif et al., 2023). But through the increase in the utilization of financial technology the concern about the cyber security is also increased. People are aware about the cyber threats but sometimes they are not giving importance to the cyber security measures, because of the lack awareness about the cyber security among them. But despite the efficiency and convenience

that fintech offers, the fear of cyber security vulnerabilities lingers large. The rapid digitalization of financial services has created additional channels for cybercriminals to take advantage of weaknesses and target gullible individuals. In our country many people are aware about the cyber security measures but still many people are there without any knowledge about the cyber security measures or are not ready to take care about the measures. So these kind of unawareness or behavior among the people are leading to the cyber attacks and these people doesn't have any understanding on the consequences behind the cyber attacks. In olden days even the people are not aware about the cyber security, it's not a big matter but in the present world every individual are using different kind of technologies in their day today life. So in this situation the lack of awareness on the cyber security measures are leading to easy access to the hackers and it will lead to the loss of crucial information about the country also. Now the people are utilizing technology for their financial transactions also and they are not bothered about how crucial it is to have a cyber security measures to protect their sensitive data. This kind of mistake may lead to a huge loss to the entire nation so it is necessary to reduce the gap between the cyber security measures that are developed by the authorities to protect the information and the use of the same to protect the sensitive information by the common people. Prioritising user education by providing materials, tutorials, and advice on cyber security best practices is important for financial institutions and fintech companies. Furthermore, technology-based solutions like encryption, multi-factor authentication, and biometric authentication may strengthen security protocols and boost consumer trust in financial platforms. Here the awareness on cyber security is measured by utilizing the variables trust, frequency of use of fintech and self efficacy. The study is to analyse whether these variables have any role in the cyber security awareness among the customers of fintech products.

1. *Cyber Security Awareness*

The cyber security awareness is concerned with the people's knowledge and understanding about the cyber threats and how they are focusing on eliminating the cyber threats or how they are taking measures to overcome the loss of their digital information (Zwillig et al., 2022). It includes the awareness about the cyber threats, security measures and the utilization of the measures.

2. *Trust*

Trust in utilizing financial technology platforms consider the individual confidence while engaging with the financial technology. People's trust in the reliability and security in the fintech platforms and their perception about the security measures used in the different platforms may lead to the willingness to engage more in the fintech platforms (Alodhiani, 2023).

3. *Frequency*

People are utilizing the technology in their day to day life but it differs from person to person based on different factors. It measures the rate at which the people are interacting with the fintech platform and the frequency of utilizing fintech platforms are used to measure the awareness on the cyber security measures, whether the frequency has any role in the awareness of cyber security (Feyen et al., n.d.). The variable is selected because to analyse whether the

people are taking care about the cyber security measures while interacting with the digital platforms.

4. *Self Efficacy*

The self efficacy is taken as another variable and it includes the individuals believe on their capacity to effectively utilize the finanacial technology platforms and their believe on their capacity to eliminate the cyber threats.

The conceptual frame work explains the interplay between the utilization of the financial technology and the awareness on cyber security by using the variable trust, frequency of using financial technology and the self efficacy. The study helps to get more insight in to relationship between the use of technology and the cyber security awareness. The study helps to offer suggestion to enhance the awareness among the users of the financial technology.

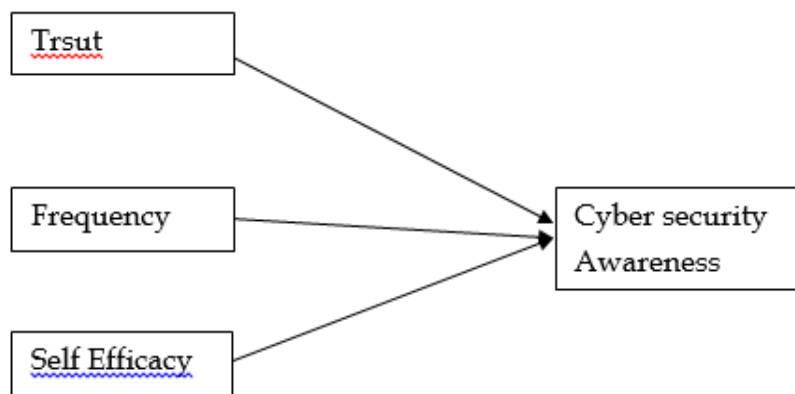


Figure 1. Cyber Security Awareness

RESULTS AND DISCUSSION

Table 1. Demographic Profile of the Customers

		Frequency	%
Gender	Male	66	44
	Female	84	56
	Total	150	100.0
Age	below 20	23	15.3
	20-30	43	28.7
	30-40	47	31.3
	above 40	37	24.7
	Total	150	100.0
Marital status	Married	27	18.0
	Unmarried	123	82.0
	Total	150	100.0
Educational Qualification	secondary or below	11	7.3
	graduation	46	30.7
	above graduation	93	62.0
	Total	150	100.0

Source: Primary Data

The above table shows that more than 50 % of the samples are female and the majority of the samples are in the age group of 30-40. Out of the total more than 80% of the respondents are unmarried and among the respondents majority qualify for above graduation.

Table 2. Reliability Statistics

Measuring the Reliability		
	Cronbach's Alpha	Number of items
SE	.923	3
F	.818	3
T	.735	5
ACS	.876	5

Source: Primary Data

The above table shows the Cronbach's alpha value of the variables Self-efficacy (SE), Frequency of using fintech (F), Trust in using fintech (T) and awareness of cyber security (ACS). The alpha value for all variables is above .7, which means the items used in the scale to measure each variable are reliable.

Table 3. Correlation Between the Variables

	SE	F	T	ACS
SE	1	.494**	.822**	.869**
F	.494**	1	.515**	.547**
T	.822**	.515**	1	.854**
ACS	.869**	.547**	.854**	1

Source: Primary Data

The above table shows that cyber security awareness is significantly highly correlated with self-efficacy (SE) and Trust in using fintech applications (T). trust is also correlated with the self-efficacy of the people and the frequency of use of fintech is not much correlated with the creation of trust and awareness on cyber security.

Table 4. Model Summary

1	R	R Square	Adjusted R Square	F	Sig.
1	.907 ^a	.823	.819	225.746	.000 ^b
a. Predictors: (Constant), T, F, SE					

Source: Primary Data

The above table shows that the independent variable in the model is significantly predicting the dependent variable. 82 % of the variable is explained by the independent variable in the study.

Table 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.342	.115		2.964	.004
	SE	.415	.052	.492	7.961	.000
	F	.094	.039	.099	2.400	.018
	T	.380	.060	.399	6.359	.000
a. Dependent Variable: PC						

Source: Primary Data

The coefficient shows that the one-unit increase in self-efficacy leads to a .415-unit increase in awareness of cyber security. Just like that the frequency of using fintech and trust in fintech are contributing to the awareness on the cyber security.

Table 6. Anova

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
SE	Between Groups	44.999	3	15.000	7.506	.000
	Within Groups	291.742	146	1.998		
	Total	336.741	149			
F	Between Groups	10.225	3	3.408	1.964	.122
	Within Groups	253.418	146	1.736		
	Total	263.643	149			
T	Between Groups	33.301	3	11.100	7.035	.000
	Within Groups	230.371	146	1.578		
	Total	263.672	149			
ASC	Between Groups	35.175	3	11.725	8.412	.000
	Within Groups	203.496	146	1.394		
	Total	238.671	149			

Source: Primary Data

The above table shows a significant value of .000 for the variable self-efficacy (SE), trust (T) and awareness of cyber security (ASC). This indicates that these variables have significant differences across the different age groups. However, the frequency of using Fintech does not significantly differ in different age groups.

CONCLUSION AND RECOMENDATION

Findings

- Self-efficacy on the fintech services is highly correlated with cyber security awareness among the customers.
- The trust in the services offered by the fintech companies is positively correlated with the awareness of cyber security.
- The frequency of using the Fintech application has a significant relation with cyber security awareness but not much like trust and self-efficacy.
- 82 % of the cyber security awareness depends upon the trust, self-efficacy and frequency of using the fintech services.
- There is no significant difference in the frequency of use of fintech between the different age groups but in the case of self-efficacy and trust the different age group shows significant differences.

Suggestions

- Cyber security awareness can be improved with the help of creating self-efficacy and trust in using Fintech among the customers because people with high self-efficacy have a higher level of trust and cyber security awareness.
- The company should facilitate more features to enhance the trust among the users.
- The fintech platforms should have some improved security measures to eliminate the cyber security risks.
- The fintech companies should understand that the frequency of using fintech services is not significantly different based on the age group but the self-efficacy and trust are different based on the age group.
- Fintech companies should invest in customer education to enhance customer awareness through improving the self-efficacy of the customers.
- Fintech companies should offer user-friendly security measures to enhance trust among the customers.

Conclusion

The study aims to find the impact of fintech applications on awareness of cyber security. Nowadays the use of fintech applications among customers is increasing because of the convenience and ease of use of the technology, But with the increase in the technology for financial transactions cyber security becoming an important factor that is to be considered as a priority factor. Here the study found that the self-efficacy of the people regarding the fintech application has more impact on the awareness of cyber security. The discovery that self-efficacy is a crucial factor in determining users of fintech applications' understanding of cyber security was at the heart of the study's conclusions. One of the most effective ways to predict a person's degree of understanding about cyber security is their self-efficacy, which is defined as their confidence in their capacity to complete a certain activity or objective. It implies that the high self efficacy is leading to the more awareness on vcyber security measures. the fintech companies should understand the role of self efficacy on the awareness on cyber security measures, because from that point the study suggesting to the companies to give more user friendly interface and training materials to the

consumer to enhance their self efficacy in utilizing the technology and ther by the awareness on the cyber security measures can be enhanced. The fintech companies can contribute to secure financial system of the nation by facilitating the customers with adequate information and tools that they needed for a secure transaction thourgh the technology. Then trsut is another factor that contributing to the cyber security awareness so the study also suggesting that the companies should try to enhance the trust among the consumers of the fintech products. More over the study found that the raising of the trsut and self efficacy are interconnected. So through facilitating adequate information, tools, training material and inbstruction the companies can enhance the trust, confidence na dself efficacy among the consumers. The study emphasis on the link between the trsut, self efficacy, frequency of using the technology and the cyber security, the study reveling that the fintech companies can contribute to the secure financial system by enhancing the trsut and self efficacy among the consumers of fintech products.

FURTHER STUDY

This research still has limitations so further research needs to be carried out regarding the topic Exploring the Interaction Between Fintech Utilization and Cybersecurity Awareness in order to perfect this research and increase insight for readers.

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