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Research Article

Fintech Disruption: Evaluating The Implications For Traditional Financial Institutions And Regulatory Frameworks

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ABSTRACT

This research delves into the consequences of fintech disruption on conventional financial institutions and regulatory structures. The study aims to comprehend the effects of fintech adoption as well as regulatory changes and partnerships by using an all-encompassing method in the financial industry. In that case, different types of challenges and their mitigation strategies are also discussed in this study. Here, primary data collection was used where a total of 67 financial experts offered their experiences about the impact of the disruptions of fintech on traditional financial institutes.

Keywords: Fintech, Financial Institutions, Regulatory Frameworks, Innovation, Competitiveness and Collaboration.

INTRODUCTION.

BACKGROUND OF THE STUDY

In this 21st century, throughout the world, there is a rapid evolution in financial technology. This technology, also called fintech, not only brings revolutionary changes but also provides effective services in the financial industry (AlMomani & Alomari, 2021). On the other hand, traditional financial institutions implement different advanced technology to reshape their financial services

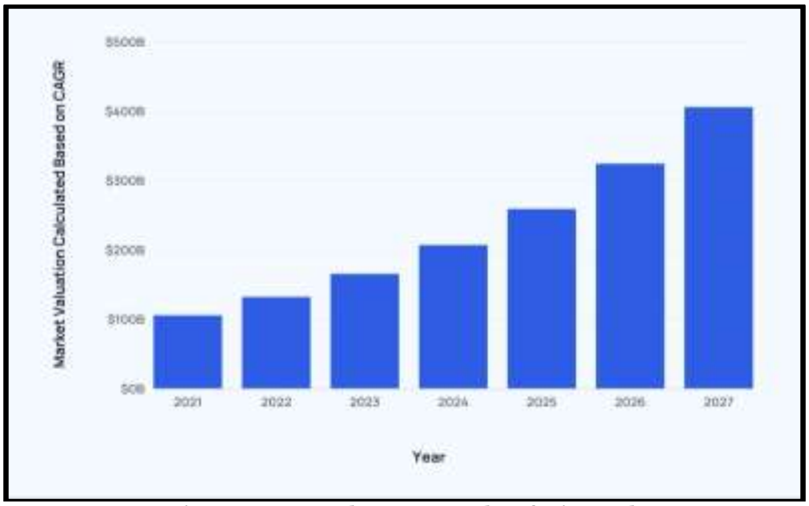

Figure 1: Market Growth of Fintech
(Source: explodingtopics.com, 2024)

In the financial industry, technological advancements are causing profound transformations that challenge conventional banking practices. In that case, by using cutting-edge technologies related to blockchain as well as artificial intelligence and big data analytics, fintech companies maintain effective services as well as products (explodingtopics.com, 2024). In this case, banks as well as insurance companies and other financial institutions are facing significant challenges from disruptions that were analysed through this study.

Problem Statement

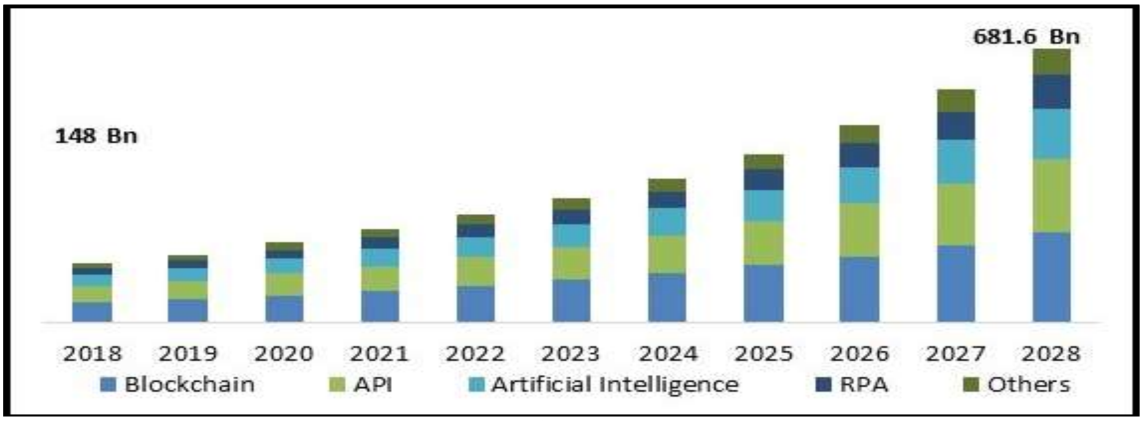

Figure 2: Transformation in Fintech
(Source: kbvresearch.com, 2022)

With the rise of fintech, traditional financial institutions are facing a challenging environment. In this case, financial institutes must navigate the demands of new technology by maintaining all the rules and regulations. On the other hand, due to continuous evolution, it can hamper the long-term viability of traditional finance where current rules and regulations maintain stability in the financial industry.

RESEARCH AIM AND OBJECTIVES

RESEARCH AIM

The aim of this study is to evaluate the implications of fintech disruption on traditional financial institutions and the regulatory frameworks governing them.

Research Objectives

RO1: To examine the key technological innovations driving fintech disruption in the financial sector.
RO2: To investigate the impact of fintech on business models of traditional financial institutions.
RO3: To understand the effectiveness of current regulatory frameworks in addressing the challenges posed by fintech.
RO4: To identify strategies for traditional financial institutions to adjust and succeed in the era of fintech disruption.

RESEARCH QUESTIONS

RQ1: What are the primary technological innovations contributing to fintech disruption in the financial industry?
RQ2: In what ways fintech disruption affect the traditional business models of financial institutions?
RQ3: To what extent are current regulatory frameworks equipped to address the challenges posed by fintech?
RQ4: What strategies can traditional financial institutions use to navigate and capitalise on the opportunities presented by fintech disruption?

SIGNIFICANCE OF THE STUDY

This research provides insights into the relationship between fintech, traditional financial institutions, and regulatory frameworks. It aims to contribute valuable knowledge for strategic decision-making and policy formulation in the financial sector. In that case, by understanding technologies, financial institutes can maintain the safeguard of customers through their business process.

LITERATURE REVIEW

Primary Technological Innovations contributing to Fintech Disruption

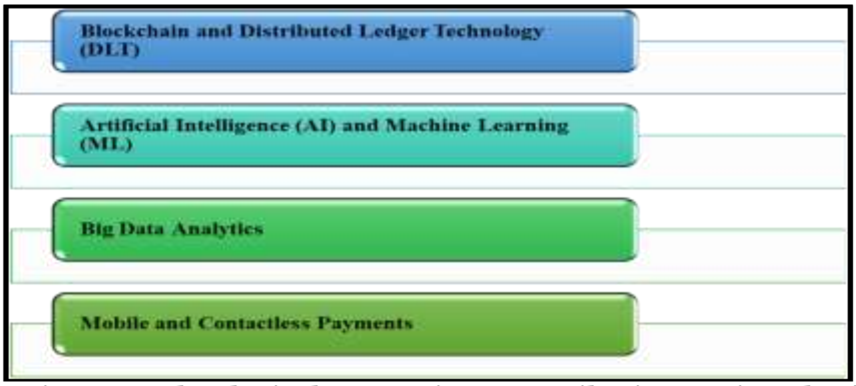

Figure 3: Primary Technological Innovations Contributing to Fintech Disruption
(Source: Gupta et al. 2021)

There are several technological innovations that bring fintech disruption in the financial industry. In that case, Blockchain as well as Distributed Ledger Technology (DLT) not only enhance security as well as transparency but also reduces the need for intermediaries in financial services (Gietzmann & Grossetti, 2021). Similarly, Artificial Intelligence (AI), as well as Machine Learning (ML), provide different algorithms that not only help in data analysis but also help in the fraud detection as well as risk assessment segment. On the other hand, Big Data Analytics is another technology that helps to analyse large amounts of data which leads to better customer profiling, and personalised marketing (Gupta et al. 2021). In the fintech disruption, mobile and contactless payments bring revolutionary changes that reduce the consumed time of the customers.

Impact of Fintech Disruption on Traditional Business Models

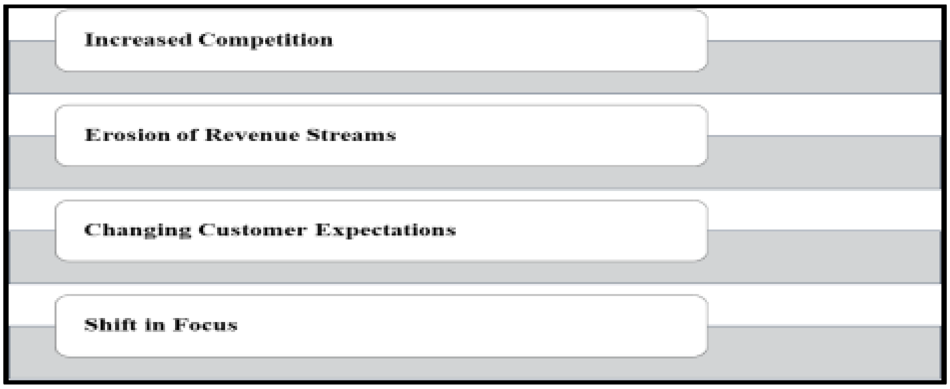

Figure 4: Impact of Fintech Disruption on Traditional Business Models
(Source: Borges, Marine & Ibrahim, 2020)

There are several ways where fintech disruption creates impacts on traditional financial institutions. As per the study Suprun, Petrishina & Vasylchuk (2020), due to the development of innovative technologies by the fintech start-up in the financial services industry brings higher levels of competition in the traditional financial institutes. In that case, fintech disruption changes customer expectations where customers get seamless, user-friendly experiences through their financial services. On the other hand, with the development of innovative technologies, financial institutes get services at lower cost which offer seamless experiences to the customers (Borges, Marine & Ibrahim, 2020). Fintech disruption also offers technology-driven solutions to traditional institutions that not only help to make adjustments in the strategies but also offer effective services to the stakeholders.

Regulatory Frameworks and Challenges Posed by Fintech

Due to the advancement in technology, the current regulatory frameworks face different challenges during the adaptation of different services developed by Fintech disruption. In that case, due to the rapid technological advancements, financial institutes have less information leading to uncertainty in adopting fintech services (Ryu & Ko, 2020). Similarly, cross-border transactions are the other challenges faced by financial institutes where jurisdictional boundaries play a vital role. On the other hand, due to technological advancement, there are several risks such as data privacy and cybersecurity that come through fintech that are one of the major concerns. Similarly, incorporating innovation sandboxes in regulatory frameworks could be a viable option to enable the testing of new fintech products and services in a controlled and flexible manner (Alaassar et al. 2021).

Strategies for Traditional Financial Institutions to Navigate Fintech Disruption

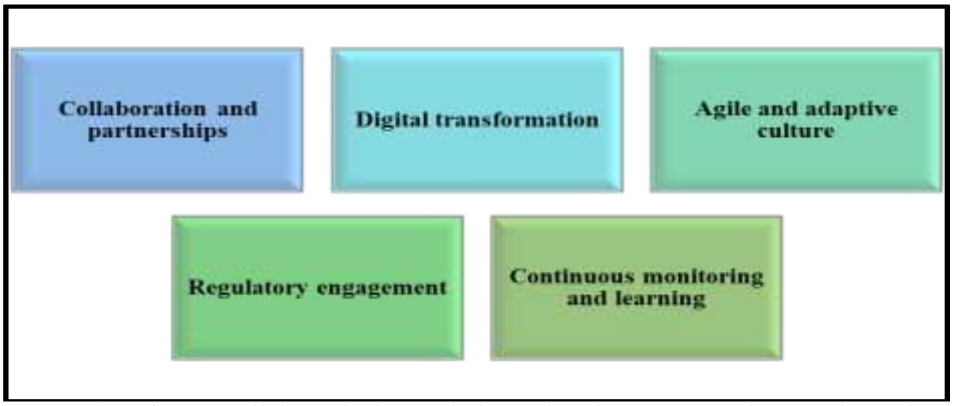

Figure 5: Strategies for Traditional Financial Institutions to Navigate Fintech Disruption
(Source: Harsono & Suprapti, 2024)

Traditional financial institutions can adopt various strategies to navigate and capitalise on fintech disruption. In that case, financial institutions should collaborate and partner with fintech start-ups to help traditional institutions use innovative technology without having proper infrastructure (Ruhland & Wiese, 2023). Similarly, institutes should make investments in digital technologies that not only improve streamline operations but also improve customer experiences. On the other hand, institutes should maintain organisational cultures that help to quick adaptation to changes in this dynamic field. Similarly, institutes should collaborate with regulators to develop effective regulatory frameworks that not only maintain the customer's privacy but also maintain stability in the financial industry (Harsono & Suprapti, 2024). Here, continuous monitoring also helps to mitigate challenges.

METHODOLOGY

In this study, a primary research method was used that has a primary data collection process. In that case, positivism research philosophy was used to understand the evidence collected for this study. On the other hand, the deductive approach offers different non-existing hypotheses for this study which is associated with fintech disruption. Primary data collection refers to the data collection process in which all the data is collected from non-existing sources (Maffioli, 2020). In that case, an online survey was conducted using Google Forms. Here, a total of 67 participants participates in this survey who are financial experts in different financial institutes. In terms of data analysis, quantitative data analysis was used where the IBM SPSS tool was used. Here, descriptive analysis as well as regression analysis, validity test and correlation test are performed. This quantitative analysis not only provides less biased results but also helps with data interpretation aspects.

DEVELOPMENT OF HYPOTHESES

H1: Blockchain integration in fintech will disrupt traditional banking practices that maintain competitiveness in the market.
H2: The failure of traditional financial institutions to adopt AI and machine learning technologies may cause them to lose competitiveness and struggle to meet evolving customer expectations
H3: Fintech collaborations boost innovation, customer experiences, and market share for traditional financial institutions.

FINDINGS
DEMOGRAPHIC ANALYSIS
Age of the respondents

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	22.4	22.4	22.4
	2	18	26.9	26.9	49.3
	3	7	10.4	10.4	59.7
	4	27	40.3	40.3	100.0
	Total	67	100.0	100.0	

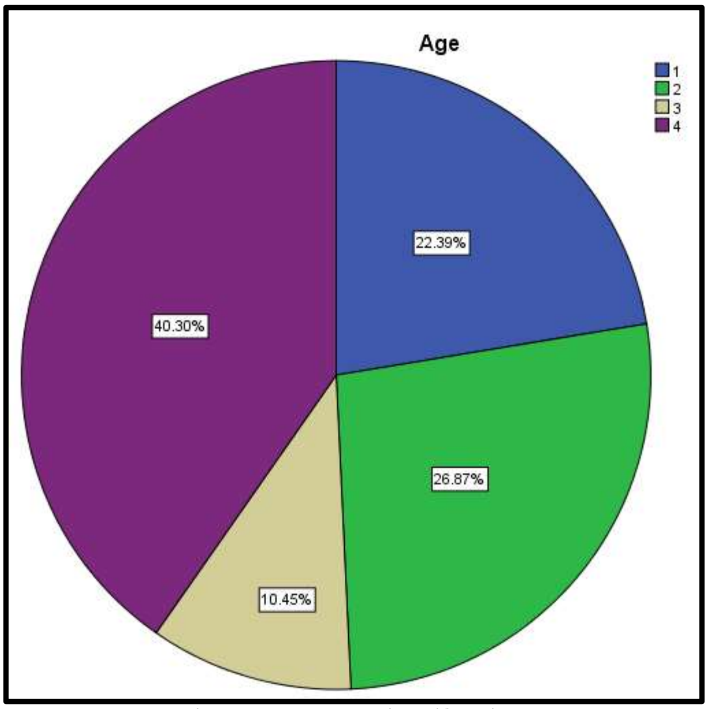

Figure 6: Age Distribution
(Source: SPSS)

The above figure shows the age group of respondents who participated in an online survey. Out of 67 participants, 27 participants were aged 45 to 55 years whereas 18 respondents were aged 36 to 40 years. On the other hand, the number of respondents aged 30 to 35 years is 15.

Gender of the respondents

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	42	62.7	62.7	62.7
	2	18	26.9	26.9	89.6
	3	7	10.4	10.4	100.0
	Total	67	100.0	100.0	

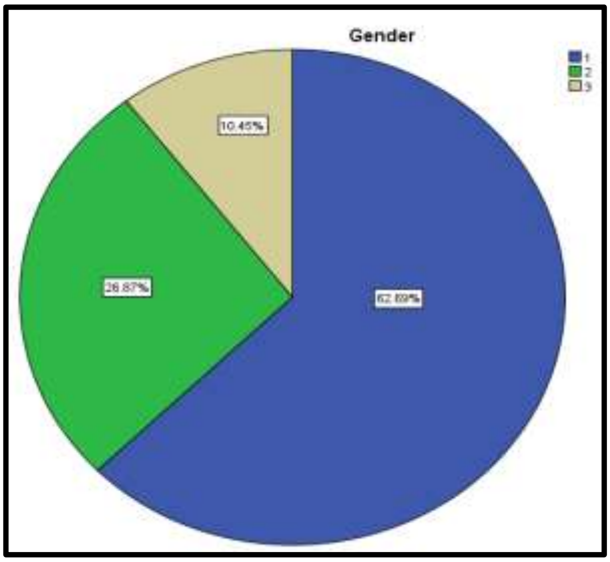

Figure 7: Gender Distribution
(Source: SPSS)

The above figure and table provide information about the gender of participants. In that case, a total of 42 participants are male whereas 18 respondents are female. On the other hand, 7 respondents from other categories offered their valuable experiences about the role of fintech disruption in traditional financial institutes.

Years of experience as a financial expert

Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	22.4	22.4	22.4
	2	27	40.3	40.3	62.7
	3	7	10.4	10.4	73.1
	4	18	26.9	26.9	100.0
	Total	67	100.0	100.0	

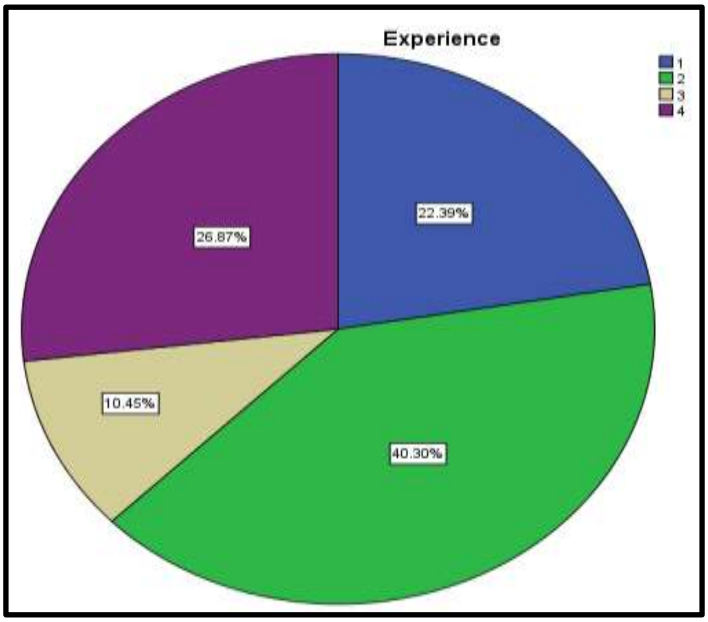

Figure 8: Experiences as financial experts
(Source: SPSS)

The above figure offers information about the experiences level of respondents. In that case, 40.30 percent of respondents have 6 to 8 years' experience whereas 26.87 percent of respondents have 13 to 15 years' experience. On the other hand, 15 respondents had experiences of 0 to 3 years. In this context, financial experts play a vital role where experts offer their valuable experience in fintech.

VARIABLE-RELATED ANALYSIS
DESCRIPTIVE TEST

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
DV	67	6.00	15.00	11.6716	3.02709	-.571	.293	-.527	.578
IV1	67	6.00	15.00	10.7910	2.60266	-.391	.293	-.542	.578
IV2	67	6.00	15.00	10.7612	3.17705	-.251	.293	-1.408	.578
Valid N (listwise)	67								

Table 1: Descriptive analysis
(Source: SPSS)

The above table provides results of descriptive analysis that help to understand the distribution of the elements. In that case, three different variables have positive results that signified this dataset. Here, the number of elements is 67.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.479
Bartlett's Test of Sphericity	Approx. Chi-Square	32.169
	df	3
	Sig.	.000

Table 2: Validity Test
(Source: SPSS)

The above table offers the results of a validity test that includes KMO analysis. In that case, a lower level of sampling adequacy has been observed. For the Bartlett's test, the degree of freedom is 3. The KMO value should take place between 0 to 1 (Shrestha, 2021). In that case, the KMO value is 0.479.

Linear Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.274[a]	.075	.046	2.95664	.312

a. Predictors: (Constant), IV2, IV1

b. Dependent Variable: DV

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.304	2	22.652	2.591	.083[b]
	Residual	559.472	64	8.742		
	Total	604.776	66			

a. Dependent Variable: DV

b. Predictors: (Constant), IV2, IV1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.320	1.609		8.898	.000
	IV1	-.388	.173	-.333	-2.244	.028
	IV2	.143	.142	.150	1.008	.317

a. Dependent Variable: DV

Table 3: Linear Regression Test
(Source: SPSS)

The above table provides information on the results of the regression model that includes the model summary as well as the ANOVA test and coefficient test. In the model summary, the R square value, 0.075 indicates the variable relies on the dependent variable. Here, the R-value is 0.274 which signifies this regression model properly. In terms of the ANOVA test, the F value is 2.591 which is greater than 0.05. Here, the lower Durbin-Watson value for this study is 0.312. On the other hand, in the coefficient test, the t value is 1.008 for the IV2 which signifies at 0.317 level. This IV2 helps to make proper predictions about where different types of fintech services create impacts on the financial industry.

Correlation test

Correlations

		DV	IV1	IV2
DV	Pearson Correlation	1	-.245*	-.046
	Sig. (2-tailed)		.045	.711
	N	67	67	67
IV1	Pearson Correlation	-.245*	1	.588**
	Sig. (2-tailed)	.045		.000
	N	67	67	67
IV2	Pearson Correlation	-.046	.588**	1
	Sig. (2-tailed)	.711	.000	
	N	67	67	67

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4: Pearson Correlation test
(Source: SPSS)

The above Pearson Correlation Test was performed which results are shown in the above table. Through the help of this test, the relationship between different variables was understood. Here, all the variables make indirect relationships with other variables. In that case, DV makes an indirect relationship with IV1 as well as IV2. Here, negative results would provide evidence. In that case, all the correlations signified at 0.05 as well as 0.1 level.

Discussion

From the above findings, it is clear that the rise of fintech in the financial sector needs revolutionary changes for traditional institutions and regulations. In that case, by adopting fintech, financial institutes not only increase competitiveness but also increase efficiency to fulfil the demand of stakeholders. On the other hand, in the adoption of fintech services, financial institutes need effective regulations where these regulatory frameworks also play a critical role (Arkanuddin et al. 2021). This regulatory framework not only provides an effective environment for financial services but also helps to maintain customer satisfaction properly. By collaborating with fintech startups, financial institutes enhance innovation that brings streamlined operations which improve customer experiences. By implementing fintech, financial institutes offer customer-centric services to customers that offer seamless customer experience. On the other hand, due to the advancement in technology, there are several issues faced by institutes where cyber security as well as privacy. In that case, balancing between innovation and regulation, all the challenges mitigated help in future research.

CONCLUSION

In the end, it can be concluded that the fintech disruption plays a vital role in traditional financial institutes where the advancement of technology reduces operating costs. In that case, regulatory adaptability is an important aspect that not only helps financial institutes to adopt fintech as soon as possible but also helps to increase the integration of fintech in financial services. This service also reduces the leading time which brings effective customer satisfaction. On the other hand, by making effective balance between financial regulations and technological innovations, financial institutes can maintain the ecosystem in the financial industry that helps in the economic development in the future.

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Appendices

Appendix 1: Survey Questionnaire

1. What is your age?

30-35
36-40
41-45
46-55

2. What is your gender?

Male
Female
Others

3. How many years of experience do you have as a financial expert?

3-5
6-8
9-12
13-15

4. The adoption of fintech solutions impact the competitive positioning of traditional financial institutions in the market
5. A higher level of fintech integration be linked to increased operational efficiency and cost-effectiveness for traditional financial institutions
6. Customer satisfaction and retention rates vary between traditional financial institutions that embrace fintech and those that do not
7. Adaptable regulatory frameworks influence the speed and scale of fintech adoption within traditional financial institutions
8. Regulatory environments impact the willingness of financial institutions to invest in and experiment with fintech solutions
9. A correlation be established between regulatory clarity and the levels of investment and funding attracted by fintech startups within a specific jurisdiction
10. Strategic collaborations with fintech startups play in fostering innovation within traditional financial institutions
11. Customer experiences differ between traditional financial institutions that collaborate with fintech startups and those that do not engage in such partnerships
12. A measurable impact on market share for traditional financial institutions that actively engage in partnerships with fintech startups compared to those that do not

Survey link:

https://docs.google.com/forms/d/e/1FAIpQLSdZ8wU8y5mH3M8EKFadzzxCMlBZ1HFb0bs9Yz4nnI4imsSh8w/viewform?usp=sf_link