The Inclination of Students Towards Adapting with the Discipline of Finance in Fintech Revolution

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Abstract: **With the rapid growth of AI and Technology being used in the field of Financial Services, it becomes necessary to understand how far has the technology spread in the field of finance and what is the potential of FinTech in the next decade. The aim of this paper is to understand the students' perspective about FinTech as well as to understand the awareness and ability to adapt to FinTech of the Aspiring Finance students. As Financial sector is experiencing a significant inclusion of Technology in its daily operations, understanding the awareness and preparedness of the aspiring finance students becomes important. It is also important to understand what role have Universities/ Colleges have been playing in educating their students and if they are equipped enough to do so.**

Keywords: **fintech, finance, fintech revolution, financial services, financial technology.**

1. Introduction

FinTech, which combines the words "financial" and "technology," is a relatively new and somewhat ambiguous phrase that refers to any developing technology that enables consumers or financial institutions to supply financial services in newer, faster ways than previously possible. Financial services have evolved to cover anything from unbaling consumers to examine their financial transactions online to tools that help financial institutions in making speedy credit decisions. FinTech in action also allows investors to conduct their own research, select firms, and monitor the performance of their portfolio in real time. FinTech is empowering customers to take control of their financial lives, resulting in far greater financial knowledge than previously possible. FinTech as mentioned, is aimed at making the lives of people easier. With the rapid growth of AI and Technology being used in the field of Financial Services, it becomes necessary to understand how far has the technology spread in the field of finance and what is the potential of FinTech in the next decade.

Financial services companies have been confronted with the dramatic and recent appearance of new technology advances and process disruptions. The industry as a whole, as well as many new fintech start-ups, are on the lookout for new ways to create effective business models, better customer experiences, and novel techniques that result in service transformation.

2. Review of Literature

A. FinTech Revolution and its Impact

Some jobs in the finance sector will be eliminated as a result of AI technology. By 2027, job losses in banking, insurance, and capital markets will total 22 percent, 25 percent, and 16 percent, respectively. The effectiveness will increase by 38%. By 2027, AI is expected to replace 2.3 million employments in the finance sector, a reduction of 23%. Finance, trading, risk auditing, customer service, and background finance are all likely to be replaced in the near future. (David He, Michael Guo, Jerry Zhou and Venessa Guo, 2018)

As time passes and it grows into a regular industry sector, rather than one of the newest, the fintech sector is expected to undergo major modification and development, potentially sooner than many observers imagine.

Today, it appears that technological forces have impacted every aspect of financial services, resulting in new entrepreneurship, unfettered creativity, and a large increase in venture capital companies' interest in getting engaged. This time, however, it isn't the dot-coms or e- commerce that are to blame. Instead, it's the technology transformation of banking, securities trading, and other financial services as we've known them in the past: new service visions and client centricity, with promising cost-control and profitability prospects. New capabilities reflect digital convergence and disintermediation, as well as new forms of money like bitcoin and ethereum, and the expansion of financial services to previously unbanked individuals and markets. (Gomber, Peter; Kauffman, Robert J.; Parker, Chris; And Weber, Bruce W, 2018)

According to (Mamonov, 2021) Information technology is tightly intertwined into nearly every component of the financial startup business models in their sample, they state that IT has a double role in service delivery: it is both a customer-facing artefact and a vital coordinating tool that organises all business operations within the individual firms. They claim that they have found that the bulk of the fintech startups in our study stress low-cost options to traditional financial services, presenting a possible disruption threat to existing enterprises in the relevant industries. They used the business model canvas framework to look at how the startups use technology in

different parts of their business models. Their research lays the theoretical groundwork for further research into the impact of IT on business models in other settings, with the goal of explaining contextual elements that can influence the scope of IT-driven disruptions in multiple industries.

Traditional finance models are being challenged by new technology, which are altering financial firms' internal processes. According to McKinsey & Company, financial companies that do not utilize fintech technologies will face earnings decreases of 20 to 60% by 2025.

However, simply embracing new technologies is insufficient. According to Nadeem Shaikh of Harvard Business Review, innovation — essentially, human capital and the application of new modes of thinking — will be considerably more vital to the future of finance than merely "bolting on" new technologies. (Earls, E. M. (2019)).

The recent rise of interest in FinTech has emphasised the need for a deeper understanding of the value of technology advancements in this field. The research paper of (Chen, Wu, & Yang, 2017) contributes to the filling of this gap by producing adequate evidence. They have investigated the prevalence of FinTech innovation and the value it offers to innovators, industries, and established enterprises using a new data set derived from the entire text of patent applications.

B. Role of Universities have Played in Training Students to Adapt in FinTech Revolution

The majority of university fintech programs have traditionally focused on regulation, security considerations, and analysing the commercial implications of technology. This high-level approach does not delve into specific technology, leaving students to learn on the job or take additional optional training. Fintech courses have been added to MBA programmes in particular. For MS in Finance candidates, Brandeis University in Waltham, for example, provides distinct fintech degree paths. Over the course of two years, students take courses such as Python and Finance Applications, Management, Venture Capital and Entrepreneurial Finance, Computer Simulation and Risk, Predictive Analytics and FinTech in Corporate Innovation, Quantitative Investment, real estate innovation, and financial innovation, Corporate Financial Engineering and Technological Rivalry. The Fintech Programme at the University of Oxford covers issues such as the future of money and markets, infrastructure and regtech, proptech, on a global scale. (Earls, E. M. (2019).

C. Research Gap

The scopes of most of the existing studies are limited to understanding what FinTech is and its impacts on the field of Financial Services. Some of the studies aim to understand the different initiatives taken by universities to educate and train students about FinTech.

However, there are no or a very few studies on understanding the student's perspective about FinTech as well as to understand the awareness and ability to adapt to FinTech of the Aspiring Finance students. As Financial sector is experiencing a significant inclusion of Technology in its daily operations,

understanding the awareness and preparedness of the aspiring finance students becomes important. It is also important to understand what role have Universities/ Colleges have been playing in educating their students and if they are equipped enough to do so.

D. Research Objectives

1. To understand the awareness about FinTech Revolution Amongst the aspiring finance students.
2. To understand the ability of aspiring finance students to adapt to FinTech Revolution
3. To examine the ability of Colleges/Universities to train and educate their students about FinTech Revolution.

3. Research Methodology

Research methodology, in general, refers to the use of methods and available resources to solve problems through the application of appropriate techniques and procedures that enable researchers to collect, synthesise, analyse, describe, and present data in a scientific manner to support the research hypothesis.

The purpose of this study was to answer the issues posed in the Research Objectives by reviewing and analysing theoretical and empirical evidence gathered through a thorough literature review. The cases uncovered by the literature study were utilised to establish a comprehensive grasp of the research topic and were also used as qualitative data or evidence to support the conclusions and responses to the Research Objectives' questions.

The research study being undertaken is descriptive in nature based on Primary Data, such that the research systematically aims to find out the awareness adaptability towards FinTech amongst the aspiring finance students as well the role that colleges and universities play in the same, after removing as much bias as possible. The nature of this study is quantitative research where it aims to do a systematic investigation and analysis with the use of quantifiable data and with the help of amount tables, bar graphs and other computational techniques to validate and examine the objectives of this research.

The method of data collection was a Survey Method in accordance to the research objectives. The Survey was hosted on Google forms platform and he sampling technique utilized was Convenience Sampling. The sample was mainly aimed to be collected from students studying in the field of Finance and Commerce. The Survey was posted on Social Media Platforms such as Instagram, Facebook, Twitter and Reddit, as well as sent to acquaintances through messaging platforms such as WhatsApp, Telegram and Discord. The people who filled the survey are hereon referred to as Participants.

Data regarding the participant's age. Data in the section was not collected as an absolute and specific answer, rather four age ranges were provided – 16 – 20, 21 – 25, 26 – 30, 30 – 35. The second question was about which course do they study and the options provided were Bachelor of Business Administration, Bachelor of Commerce, Bsc. Finance & Economics, this was to understand the education background of the targeted audience.

Next question was '3. On a scale of 1-5 how much are you aware of the Fintech Revolution?' this question proved to be an important one in understanding the awareness of the aspiring finance professionals about FinTech. This question was followed by a few other to complement and further examine the awareness of the respondents towards FinTech Revolution. The said questions were 4. What according to you is/are a part of Fintech? - A. Software, B. Websites, C. Mobile Applications, D. Bots, 5. On a scale of 1-5, how likely will technology (FinTech) replace jobs in financial sector according to you, 6. What % of jobs will be replaced by FinTech according to you? This question had 4 categories of options instead of an open answer – 0% - 20%, 20% - 40%, 40% - 60%, 60%, - 80%, 7. Which all job roles in Finance have been replaced / could be replaced in the next decade according to you?

A. Banking Sector (Administration), B. Financial Reporting and Analysis, C. Risk Management, D. Financial Advisory.

The next set of questions were asked to understand the ability of Students to adapt to FinTech as well as the role that Colleges play in the same. The said questions were - 8. On a scale of 1-5, how equipped do you think you are to adapt with the FinTech Revolution?, 9. On a scale of 1-5, how important do you think universities/colleges are to educate students about FinTech? 10. On a scale of 1-5, how equipped do you think Colleges/Universities train students to adapt with the FinTech Revolution? 11. What should colleges/universities do to train students to adapt in FinTech field? - A. Lectures/ Seminars about FinTech tools, B. Providing Study Material, C. Practical Assignments to learn the applications of FinTech, D. Training sessions by experts in the field.

A. Tools Used for Analysis

The tools used to analyse were Mean, Median, Mode, Standard Deviation, Correlation Coefficient, Skewness and pie charts. All software used to analyse the data were Microsoft Excel 2020 and Minitab 2019.
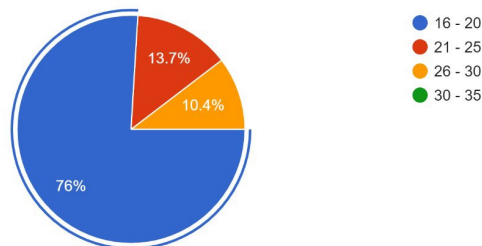
4. Data Interpretation and Analysis

Fig. 1. Age of the respondents

Out of 183 participants, 76%(139) of the population belonges to the age category of 16-20 years whereas 13.7%(25) belong to the age category of 21–25 Years. 10.4%(19) belong to the age category of 26–30 years. The significance of understanding the age category is to understand the awareness pattern and adaptability of respondents and potentially draw a correlation between the said datasets.
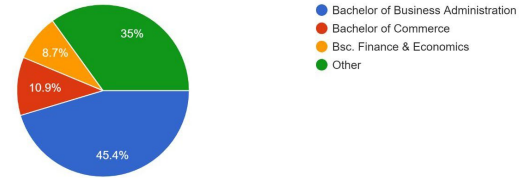

Fig. 2. Course of education of the respondents

Of the 183 participants, 45.4% (83) were studying Bachelor of Business Administration, 10.9% (20) belonged to Bachelor of Commerce, 8.7% (16) were studying B.Sc. Finance & Economics and 35% (64) belonged to other degrees of education. This information isn't extremely significant on its own, but it will be supplemented with additional information.
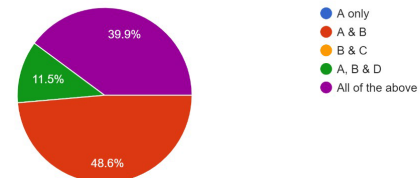

Fig. 3. Summary of jobs replaced or could be replaced in the next decade

A. Banking Sector (Administration), B. Financial Reporting and Analysis, C. Risk Management, D. Financial Advisory

From the above graph we can see that out of 183 respondents 48% (89) believe that FinTech has replaced or could replace Banking Sector (Administration), B. Financial Reporting and Analysis jobs only, whereas around 11% (21) believe that FinTech has replaced or could replace Banking Sector (Administration), B. Financial Reporting and Analysis and , D. Financial Advisory jobs. From the presented data we can understand that a only 39% of the population believes that all four jobs are replaced/could be replaced by FinTech.

According to our literature review, all four of the mentioned jobs have the potential to be replaced in the next decade. We can observe a generally unawareness of the respondents towards, C. Risk Management, D. Financial Advisory as jobs to be replaced.

The variables used in the Fig. 4 is to test the correlation are Age of the respondent and the scale of 1-5 of how equipped is the respondent to adapt in FinTech Revolution.

From the above graph, we can see that the value of r=0.517, which tells us that the said variables have a positive correlation. A value of 0.5 means a low positive correlation. This information tells us that with the change in age of the respondent, the scale of adaptability in FinTech Revolution also changes.

In our data, we can observe that respondents between the age of 21-25 and 26-30 have relatedly high scale of adaptability to FinTech as compared to respondents between the age of 16 – 20. At the same time, given the low correlation coefficient of the two variables, we cannot deny the possibility of lower

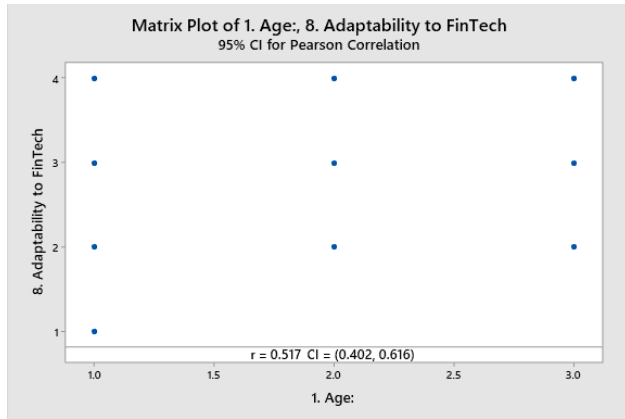adaptability of respondents between the age of of 21-25 and 26-30.

Fig. 4. Matrix plot to find the correlation between age and respondents' ability to adapt to FinTech
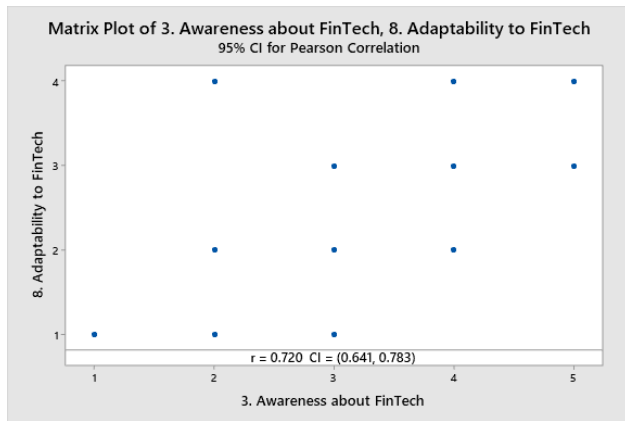

Fig. 5. Matrix plot to find the correlation between awareness of respondents about FinTech and respondents' ability to adapt to FinTech

Correlation between respondent's awareness about the FinTech Revolution and the ability of adapt to the Fintech Revolution. We tested the correlation between the said variables and found the correlation coefficient r to be 0.720, which suggests a moderately positive correlation between the two variables suggesting that respondents who are aware about the FinTech revolution seem to be moderately adaptable or on the path to adapt to the FinTech Revolution.

After filtering the data and analyzing the responses, it was found that 47 out of 183(25%) respondents which said that they were aware about of FinTech Revolution believed that they are not equipped enough to adapt in FinTech Revolution, majority of it were observed to be Bachelor of Business Administration (BBA) students and all 47 respondents belonged to the age category of 16–20 years. From this we can understand that students of age 16–20 years are observed to be less equipped to adapt to Fintech Revolution as compared to the older respondents.

The correlation between the degree of awareness of respondents about FinTech and the ability of colleges to train and educate their students about FinTech was established in order to understand if Colleges have played a significant role in educating and making respondents aware about FinTech or there were external factors which played a role in educating the respondents about the same.
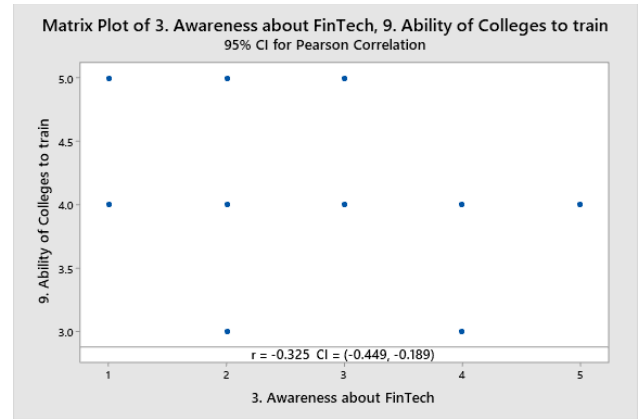

Fig. 6. Matrix plot to find the correlation between awareness of respondents about FinTech and colleges' ability to train students to adapt to FinTech

In the above graph, we can see that the correlation coefficients r of the said variables is -0.325. A negative Correlation coefficient means that the two variables are not highly correlated. From this we can understand that the respondents who said they were aware about FinTech Revolution did not necessarily learnt about it from their University/College since the ability of the Colleges to educate its students about FinTech is low whereas the awareness about the students is comparatively higher showing that the respondents may have learnt about FinTech Revolution from external sources.
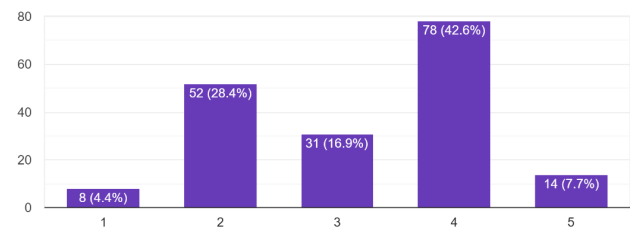

Fig. 7. Awareness of Fintech revolution amongst the respondents

From the above graph we can understand the scale of awareness about Fintech revolution amongst the aspiring finance professionals. We can say that the total percentage of respondents who claim to be aware about Fintech are around 51% (4-5 rated). Which means that half of the population is very well familiar with the concept.

From the given question in the survey, we tried to understand the importance that universities play in educating their students about FinTech (1–5, on a scale of least likely to most likely).

Here, we can observe that about 96% of the population responded with 4 -5 implying that universities/Colleges pose to play a significant role in educating their students about FinTech. This also proves why the data is skewed towards right as depicted in figure 9. This question proves to be significant for our following question.

9. On a scale of 1-5, how important do you think universities/colleges are to educate students about FinTech?
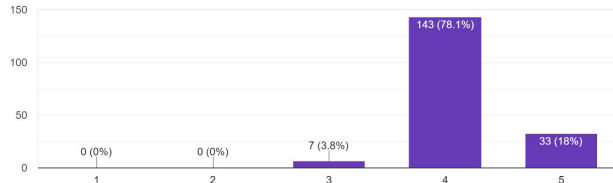183 responses

Fig. 8. Importance of universities/colleges in training students to adapt in FinTech
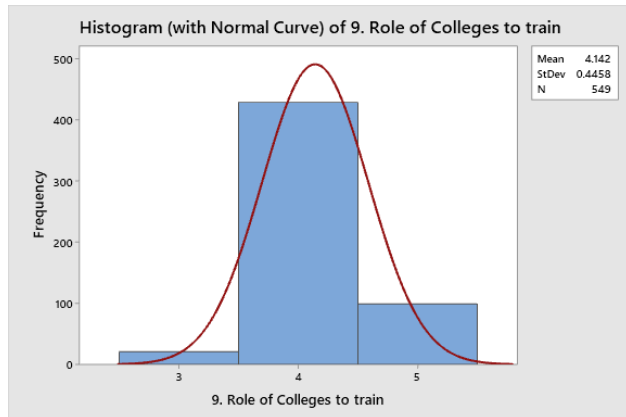

Fig. 9. Skewness of the data collected to importance of colleges in training students about FinTech

10. On a scale of 1 - 5, how equipped do you think Colleges/Universities train students to adapt with the FinTech Revolution?
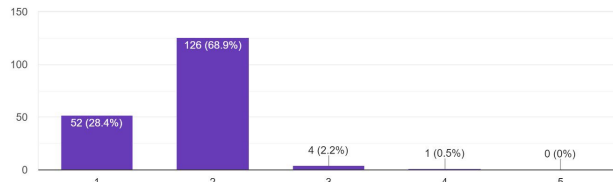183 responses

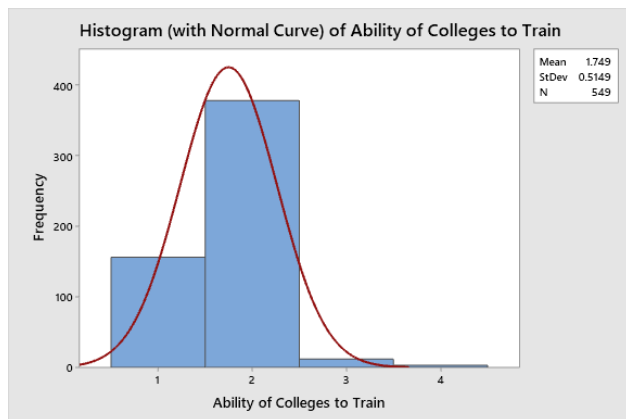Fig. 10. Ability of universities/colleges in training students to adapt in FinTech

Fig. 11. Histogram to expain the skewness of the data collected of ability of colleges in training students about FinTech

This question was asked during the survey in order to understand the perspective of respondents on the ability of the Universities/Colleges to train the students to adapt with the FinTech Revolution (1–5, on a scale of least likely to most likely) By the given graph, we can observe that majority of the

respondents fall in the category of 1-2 believing that Colleges/Universities are very less equipped to train and develop their students to adapt to FinTech Revolution.

In the circulated survey, there was an attempt to understand the various ways/tools which colleges can adopt in order to train their students which included - A. Lectures/ Seminars about FinTech tools, B. Providing Study Material, C. Practical Assignments to learn the applications of FinTech, D. Training sessions by experts in the field. 96% of the respondents said that all four of the ways should be adopted by Colleges and Universities to train its students.

5. Findings and Conclusion

The rapid growth of inclusion of AI and technology into the financial services field makes it necessary for aspiring professionals to not only make themselves aware about FinTech but to also be trained enough to adapt in the field. After analysing the collected data following notable finding:

1. About 51% of the targeted population is very much familiar with the concept of FinTech Revolution.
2. We can observe a generally unawareness of the respondents towards, C. Risk Management, D. Financial Advisory as jobs to be replaced.
3. Respondents between the age of 21-25 and 26-30 have relatedly high scale of adaptability to FinTech as compared to respondents between the age of 16–20.
4. 25% of respondents which said that they were aware about of FinTech Revolution believed that they are not equipped enough to adapt in FinTech Revolution, majority of it were observed to be Bachelor of Business Administration (BBA) students and all 47 respondents belonged to the age category of 16 – 20 years.
5. Students of age 16–20 years are observed to be less equipped to adapt to Fintech Revolution as compared to the older respondents.
6. Ability of the Colleges to educate its students about FinTech is low whereas the awareness about the students is comparatively higher showing that the respondents may have learnt about FinTech Revolution from external sources.
7. Majority of the respondents fall in the category of 1-2 believing that Colleges/Universities are very less equipped to train and develop their students to adapt to FinTech Revolution.

A. Limitations

In terms of analysis, the ordinality of data presented a limitation, but was minimized by the use of a numerical scale. The responses received from most age groups were adequately proportional to expectations, except the responses gathered for the age 21–25 were relatively less. The author feels that the age group may have been underrepresented. Upon analyzing the data from the other groups however, it was observed and reported earlier that there is no significant variance among responses based on age groups. The author also felt that getting responses from more participants could have improved the

quality of the data and study.

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