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To What Extent Have Fintech Firm's Advancements in India Strategically Amended The Credit Scoring Methods To Enhance The Financial Inclusivity in Digital Lending?

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Abstract

Fintech is part of the digital revolution of India which aims towards increasing the Indian economy and financial inclusivity of the population. Fintech has done significant contributions in digital lending and will continue to do in future, one of the contributions is in the unique model created for credit scoring of minorities who do not have a credit history or not eligible to attain credit score through the traditional method. The strategic changes in the new credit scoring method on the basis of machine learning and artificial intelligence can provide more accurate results and provide reports for the isolated population who did not have access to credit earlier.

Methodology: The article has been written with in depth research on the Indian Fintech market and the current state of Indian digital lending. Begin with introduction of fintech evolution in India and what does it mean. Post which it provides in depth understanding about the state of digital lending and why is there a need of amendment in the credit scoring method which is used for digital lending. The influence of fintech in credit scoring has been explored via existing published research papers and statistics from World Bank. In the end, there has been suggestions in form of inputs from the author for how India can reach financial inclusivity.

Purpose: The purpose of the article is to curate information about how the Indian economy should use fintech for its advantage. The research paper aims towards outlining potential limitations too if the non-traditional credit scoring methods are used as a major factor in digital lending. Overall, the paper seeks to understand what was the major reason behind the lack of inclusivity in digital lending in India and how can it be overcome.

Findings: The research paper helps to understand that Fintech has done significant contributions in digital lending and will continue to do in future, one of the contributions is in the unique model created for credit scoring of minorities who do not have a credit history or not eligible to attain credit score through the traditional method. The strategic changes in the new credit scoring method on the basis of machine learning and artificial intelligence are able to provide more accurate results and provide reports for the isolated population who did not have access to credit earlier.

Value: The research paper has cited all the sources which has used for the research on the topic in MLA9. It is a 100% AI free paper and has been written entirely by the author without the intervention of any third party in it.

Keywords: creditscore, credit, fintech, finance, Indian economy

Introduction

With the continuous development in the financial world, new technologies have emerged in the digital age to revolutionize the use of money in the 21st century. Financial technology, better known as "Fintech", is considered to be the fastest growing areas in the information technology industry. It refers to any app, software, or technology that allows people/business to digitally access, manage, or gain insights into their finances or make financial transactions. The innovative and groundbreaking fusion of finance and technology enhances and automates the delivery and use of financial services, making them more accessible, efficient and secure for businesses and consumers.

A fintech company is any company which offers financial services or applications that rely heavily on technology. They are considered to be industry disruptors due to their tendency of changing how consumers interact with the financial industry by the use of technology. The fintech industry is a booming industry, overall adoption rates for fintech applications increased by 38% from 2020 to 2022. Indicating that uses are interested in improving their financial lives through gaining more control over their finances; moreover, they are interested in fintech as a way to enhance their financial lifestyles. (*Trificana What is Fintech? 6 main types of fintech and how they work)*

There are variety of fintech applications which work towards fulfilling different motives: few applications safely unlock financial data, and few allow users to track their investments across multiple platforms. Also, some applications might also suggest users to improve their financial position based on the available data. Lastly, there is an another category of applications that allow users to do things like trade stocks or cryptocurrencies.

Digital Lending

Commonly referred as alternative lending, refers to digital platforms that provide lo-cost loans to users. They are simple to obtain for the large unaddressed market segment. It is a growing industry aiming at different borrowing needs, including consumer loans, small medium enterprises loas, working capital loans , and payday loan among others. It serves as a relatively less volatile asset class for retail and institutional investors. Industry primarily consists of digital lending platforms and enablers who facilitates such platforms: alternate credit scorers and white label services. The main aim of the platforms is to connect lenders, seeking higher returns than banks currently offer, customers seeking fast short term loans.

Digital Lending vs Traditional Banking System

In the traditional and formal financial system, lending happens through offline. The entire process starts from identifying the prospective borrower to sanctioning of the loan or credit carried out manually which is a time consuming process and does not support financial inclusion. The banks utilise traditional credit scores such as CIBIL credit score to determine the credit worthiness of the borrowers. Loan are only provided to those people who can access the banks by having bank accounts and those customers who has a good CIBIL score. Although government of India attempts to promote financial inclusion in the country, those citizens who do not have a bank account will remain to be financially excluded from traditional lending process. However, these gaps are now filled by digital lending which is speedy in nature and loans through digital lending are approved in lower time period by using technology and alternatives credit scoring methods at affordable rate of interest. Interestingly, some digital lenders sanction the credit in a minute after submitting the required documents and the digital lenders provide variety of credit to meet diversified needs of the individual and businesses. It can be strongly said that digital lending has revolutionized the lending function and it has emerged as alternative to the bank credit. The digital lending method brings a paradigm shift in the field of lending from traditional 3-6-3 formula to 3-1-0 formula. The 3-6-3 formula is more often used in the traditional banking industry which means " raise deposit at 3%" " lend at 6%" and "play golf after 3 pm". Fintech powered digital lending brought a new rule the new global formula 3-1-0 which refers to "3 minutes to decide, 1 minute to transfer the money and 0 human touch." *(Boston Consulting Group, 2018)*

Fintech Revolution in India

The Fintech and digital lending have long been part of the policy agenda for the Indian governemnt, and the biometric-based identification platform Aadhaar is the bedrock of theese initiatives. In 2009, the uniquie identifications Authority of India (UIDAI) was created to implement Aadhar. Which uses biometric ID, an API to authenticate users based on Aadhar was released. Digital authentication and verification reduced the cost of customer acquisiton and opened up payment systems and other financial services to nontraditional players. In 2018, more than half a billion Indians were using the internet, a sharp rise of 18% over the previous year. With the rapid extension of internet usage and samrtphone adoption, digital lenders, along with other fintech platofmrs, have significantly expanded their reach. The Indian governemnt's dirve to demonetize currency in 2016 led to surge in the uptake of digital payment paltforms. In the absnece of high valuye pshycial currency, digitla payment paltofrms became the only means of conducitng many financial transactions.

The Indian Fintech market size is estimated at USD 111.14 billion in 2024, and is expected to reach USD 421.48 billion by 2029, growing at a CAGR of 30.55% during its forecast period (2024-2029). The industry has showcased a massive growth and has become a hub for many Fintech startups : Paytm, Pine Labs , PayU , and Fair cent. Moreover, the Indian government initiatives towards promoting digitalization of financial services and cashless economy post demonetization in 2016. All of this have helped to shift consumer's focus towards digital alternatives for financial transactions and services. Moreover as per, (Financial Services Sector in India: Fintech industry in ...) Fintech sector in India has witnessed funding accounting to 14% share of global funding. India ranks #2 on deal volume, the market's opportunity is to be estimated to be around $2.1Tn by 2030. Fintech is the second most funded startup sector in the Indian market, investors doubled between 2021 to 2022, rising from 535 to 1019 respectively.

Boston Consulting Group conducted the research work on consumer behaviour across the purchase journey, 50% of loan seekers with internet access buy their loan online. Further, it reported that small medium enterprise loans and personal leans are leading the digital loans of the customers followed by home loans. It helps to conclude that the fintech is now allowing financial service providers to increase financial inclusion in India. The number of Indians having either a cell phone or an Aadhaar card is reported to be around one billion. Indian population can now hope to access the benefits of the formal financial system through having one of the following. The use of Aadhar system in India: world's: largest biometric identification system (1.3+ Bn Aadhaars generated so far for the citizens of India). India has the 2nd highest number of smartphones, has access to cross border linkage being India's fast payment systems (UPI, RuPay network – QR code and P2M based payments) with other countries. The Reserve Bank of India has set up the Nation Centre for Financial Education and plans to expand the reach of Centres for Financial Literacy to every block to promote financial education across India for all sections of the population. RBI payment vision 2025: achieve 3x increase in number of digital payment transactions, increase of registered customer base for mobile based transactions by 50% CAGR, increase in PP1 transactions by 150%, increase of card acceptance infrastructure to 25Mn by 2025. *(Worldbank)*

Credit scoring

It is the statistical method used to predict the probability that a loan applicant, existing borrower, or counterparty will default or become a delinquent. The scoring provides an estimate of the probability of default or delinquency, which is widely sued for consumer lending, credit cards, and mortgages. The scoring provides an indication of creditworthiness: numerical expression that indicates how likely a consumer or business is to make credit repayments regularly and in full, including any additional charges such as interest and fees. The high the credit score of the borrower, the lower the risk of non-payment of credit. It is a quick way for lenders to identify whether the business or individual deserve to get the credit or not. The data which is used for traditional credit scoring comes from diverse and multidimensional sources: amount of loan, type of loan, maturity of the loan, guarantees and collateral value, historical payment performances such as default information and payments in arrears, amounts owed, length of credit history, new credit, and types of credit. These factors are considered to identify the willingness and ability of an individual to return the credit.

A significant portion of society falls into the credit- invisible category, hindering their access to traditional financial systems. It is primarily due to factors such as a lack of bank accounts, cash-based wages, and an absence of credit history. The credit scoring mechanism which relies on conventional records often excludes individuals from accessing loans. To bridge the information gap, there has been a growing need for alternative credit scoring method - utilising diverse data sets and advances analytics.

Alternative ways to collect data for credit scoring

It is a fact that traditional credit scoring models are outdated and pose limitations, especially for the underbanked regions and younger generations. FinTech has the opportunity to redefine these models. The Fintech companies can leverage alternative data sources: social media profiles, online behaviour, and utility payment history to build an inclusive credit scoring method. The integration of advances APIs in Fintech models can help to address the fraud risk. The Fintech firms are great source for customised credit scoring models tailored to specific populations: self-employed individuals, millennials, or those with limited credit history.

- Diversifying data sources by incorporating data from digital platforms, mobile wallets, geo-location, bill payment history, and social media usage.
- Consideration of non-traditional data points, lenders can gain insights into an individual’s financial reliability beyond what is generally reflected in a credit report.
- Utilisation of machine learning for predictive analytics. It will help lenders assess employability indexes, analyse spending patterns , and scrutinize borrower behaviour to determine creditworthiness.
- The integration with platforms like Google’s API will allow the collection of geo-data to understand an individual’s residence, movement patterns, and potential job opportunities.

It is expected that alternative credit scoring will rise, with ongoing investments in diverse data sources and advanced analytics. Machine learning will contribute to more sophisticated credit scoring models, improving accuracy and adaptability to changing consumer behaviours. There can be potential collaboration between alternative credit scoring providers and traditional credit bureaus which may lead to comprehensive credit assessment that will benefit both lenders and consumers. (K Alternate credit scoring can further financial inclusion in India. read here for details)

Implications of Alternative credit Scoring through a local lens in India

Privacy is an important concern because the success of such credit scoring methods is entirely dependent on receiving permission to track data that customers may or may not want share. Furthermore, usage of historical data will come with its own limitation such as biasedness and will affect the productivity of the machine learning and the intelligence of the algorithm. Another specific limitation in terms of measuring credit score through number of contacts in mobile phone will be biased in terms of gender in India men are more social than women because women rely more on their respective men for social interactions. In the Indian market, there has been a rapid growth in terms of smartphone users however, major chunk of the population still does not use smartphone which will be barrier in moving towards financial inclusion.

To come at an end, fintech is an ambitious future for the Indian market because it will aim towards increasing financial inclusion in the nation. There are limitations attached to switching from traditional to alternative credit scoring methods however, a pilot of it must be used to understand the theory in the practical world. The financial inclusion will help the nation to move towards reaching the developed economy but the government must unanimously come together together to form financial policies in the favour of fintech.

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