A STUDY ON APPLICATION OF ARTIFICIAL INTELLIGENCE FOR QUICK AND SAFE LOAN

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ABSTRACT

As digital lending continues to grow in size, companies are looking for ways to make their services more efficient and profitable to both lenders and borrowers. And they believe artificial intelligence and big data hold the key to the future of loans. Lenders traditionally make decisions based on a loan applicant's credit score, a three-digit number obtained from credit bureaus such as CIBIL, Experian and Equifax. Credit scores are calculated from data such as payment history, credit history length and credit line amounts. They're used to determine how likely applicants are to repay their debts and to calculate the interest rate of loans. If you have a low credit score, you're considered a risky borrower, which either means your loan application will be denied, or you'll receive it at a high-interest rate. This paper explains the conceptual frame work of big data and use of artificial intelligence in banking system to disburse quick loan by some recent cases in India.

Key words: Quick loan, CIBIL, Artificial Intelligence, Big Data and Banking.

INTRODUCTION

Digital lending platforms believe that this kind of information does not paint a complete picture of a loan applicant's creditworthiness. They've taken on to add hundreds and thousands of other data points to their process, not all of which are necessarily related to financial interactions. This can include information such as your educational merits and certifications, employment history, and even trivial information such as when you go to sleep, which websites you browse to, your messaging habits and daily location patterns. The collection of structured and unstructured data is known as big data. To be fair, big data can be a double-edged sword and create more confusion than clarity, and artificial intelligence has in large part become a marketing term for companies that want to sell their products and services. But experts in the online lending industry believe it can have a big impact on how fintech companies perform.

Upstart is a California-based peer-to-peer online lending company that is enhancing loans with artificial intelligence. Upstart uses machine learning algorithms, a subset of AI, to make underwriting decisions. Machine learning can analyze and correlate huge amounts of customer data to find patterns that would otherwise require considerable manual effort or go unnoticed to human analysts. For instance, it can determine if applicants are telling the truth about their income by looking through their employment history and comparing their data with that of similar clients. It can also find hidden patterns that might favor an applicant.

Upstart believes this can benefit people with limited credit history, low incomes and young borrowers, who are usually hit with higher interest rates. The company has also managed to automate 25 percent of its less risky loans, a figure it plans to improve over time. This can save a lot of time and energy from lenders, who will welcome a return on investments that requires less intervention on their part. The technology is planned to be available to banks, credit unions and even retailers that are interested in providing low-risk loans to their customers.

Avant, a Chicago-based startup that offers unsecured loans ranging between $1,000 and $35,000, uses analytics and machine learning to streamline borrowing for applicants whose credit score fall below the acceptable threshold of traditional loaning banks. The platform's algorithms analyze 10,000 data points to evaluate the financial situation of consumers. For instance, these algorithms are helping the platform identify applicants who have low FICO scores (below 650) but manifest behavior similar to those with high credit scores.

The company is also using machine learning to detect fraud by comparing customer behavior with the baseline data of normal customers and singling out outliers. The platform analyzes data such as how much time people spend considering application questions, reading contracts or looking at pricing options.

Avant is exploring extending its services to brick-and-mortar banks that are interested in starting or expanding their online lending business.The data can enable companies to create a more complete profile of a loan applicant. This can help make more accurate underwriting decisions, which results in a reduction in defaults for lenders and lower interest rates for borrowers. It can also help automate parts—and maybe all—of the process. Digital lending reportedly accounts for 10 percent of all loans across US and Europe, a figure that is steadily growing. The benefits of applying machine learning and analytics are evident, and according to CB Insights, there are more than a dozen fintech startups that are using the technology to evaluate loan applications and optimize the process.

However, not everyone agrees that machine learning is the panacea to all the problems of online loans. For instance, many of these applications require you to download apps that collect all sorts of personal data. And as the Equifax hack shows, entrusting too much personal information to a single company can have dire security and privacy implications for you.

There's also the issue of algorithmic bias. Machine learning algorithms too often make decisions that reflect the biases and preferences of the people who provide them with training data. Experts are concerned that this can introduce a whole new set of challenges for loan applicants. And the model has yet to prove its mettle during a downturn or financial crisis.

However, the proponents of machine learning–based loans are confident that AI will eventually become an inherent part of online lending. In an interview with NPR, Dave Girouard, the CEO of Upstart said, "In 10 years, there will hardly be a credit decision made that does not have some flavor of machine learning behind it."

SCOPE OF STUDY

The scope and coverage of this study broadly consists of following aspects,

- Origin and evolution of Artificial intelligence which become an inherent part of online lending
- Detailed understanding of structured loaning formulated by financial regulatory which assist to banks in disbursing loans.

OBJECTIVE OF RESEARCH

The research focuses on the holistic development of banks and utility of loan to customers so that their contribution to the national economy,employment and GDP enhances. Some of the research objectives identified:

- What is the impact of the Quick loan on the customers and on economy?

UTILITY OF BIG DATA IN FINANCE AND DECISION MAKING PROCESS (REVIEW)

The concept of big data in finance has taken from the previous literatures, where some studies have been published by some good academic journals. At present, most of the areas of business are linked to big data. It has significant influence on various perspectives of business such as business process management, human resources management, R&D management, business analytics, B2B business process, marketing, and sales, industrial manufacturing process, enterprise's operational performance measurement, policy making, supply chain management, decision, and performance, and so other business arenas.

Big data and its analytics and applications work as indicators of organizations' ability to innovate to respond to market opportunities. Also, big data impact on industrial manufacturing process to gain competitive advantages. After analyzing a case study of two company, Belhadi et al. stated 'NAPC aims for a qualitative leap with digital and big-data analytics to enable industrial teams to develop or even duplicate models of turnkey factories in Africa'. This study also identified an Overall framework of BDA capabilities in manufacturing process, and mentioned some values of Big Data Analytics for manufacturing process, such as enhancing transparency, improving performance, supporting decision-making and increasing knowledge. Also, Cui et al. mentioned four most frequently big data applications (Monitoring, prediction, ICT framework, and data analytics) used in manufacturing. According to Hofmann, velocity, variety, and volume significantly influence on supply chain management. For example, at first, velocity offers the biggest opportunity to intensification the efficiency of the processes in the supply chain. Next to this, variety supports different types of data volume in the supply chains is mostly new. After that, the volume is also a bigger interest for the multistage supply chains than to two-staged supply chains. Raman et al. provided a new model, Supply Chain Operations Reference (SCOR), by incorporating SCM with big data. This model exposes the adoption of big data technology adds significant value as well as creates financial gain for the industry. Hofmann also mentioned that one of the greatest challenges in the field of big data is to find new ways for storing and processing the different types of data. In addition, Duan and Xiongmentioned that big data encompass more unstructured data such as text, graph, and time-series data compared to structured data for both data storage techniques and data analytics techniques. Zhao et al. identified two major challenges for integrating both internal and external data for big data analytics. These are connecting datasets across the data sources, and selecting relevant data for analysis. Huang et al. raised four challenges, first, the accuracy and applicability of the small data-based PSM paradigms is one kind of challenge; second, the traditional static-oriented PSM paradigms difficult to adapt to the dynamic changes of complex production systems; third, it is urgent to carry out research that focuses on forecasting-based PSM paradigms; and fourth, the determining the causal relationship quickly, economically and effectively is difficult, which affects safety predictions and safety decision-making.

The above discussion based on different area of business. Whatever, some studies (such as focused different perspectives of financial services. Still, the contribution on this area is not expanded. Based on those researches, the current trends of big data in finance have specified in finding section.

APPLICATION OF AI AND BIG DATA IN DISBURSING QUICK LOAN IN INDIA

Quick loans are loan products designed to take care of short-term financial difficulties. As the name implies, these loans are disbursed quickly within hours of application. These loans typically have very minimal documentation, and the process is mostly performed online.

There are many lenders that offer quick loans in the country. Customers can check out these loans and apply online to get the best deal. The terms and conditions of these loans vary significantly from one another. Some of the popular loan products available in the market and their terms are as below:

Case: 1

One of the renowned firms is in the quick loan industry. The loan can be applied online and approval is typically provided within a few hours with higher rate of interest.

Benefits:

- Loan approval even for individuals without CIBIL score
- Loan disbursal within just 3 minutes of application
- Paperless loan processing and approval

This company promises to look beyond the conventional credit scores while providing loans to the customers. It uses a data-driven model to identify high quality customers and provide services to them at affordable rates.

Case: 2

Benefits:

- Flexible repayment tenure based on customer's choice
- Loan disbursal within a maximum of 48 hours
- 100% online process without any paperwork

Case: 3

Benefits :

- Easy online application process
- Flexible repayment tenure
- Simple documentation and approval process

Case: 4

Other is a financial service provider that offers instant loans with flexible terms. This company focuses on providing financial services to individuals who get rejected by other companies for inordinate reasons like a poor credit score.

Benefits :

- Flexible long-term repayment facility for up to 60 months
- Easy online repayment facility
- Minimal documentation and quick processing

Case: 5

This company is ideal for getting a low amount of cash during an emergency situation. It is ideal for entry-level employees looking for short-term cash to take care of emergency needs.

Benefits:

- Customer's choice of repayment in one or two monthly installments
- Easy documentation and approval process
- Instant loan disbursal within a day
- Features and Benefits

Most of the quick loan providers charge processing fees on their loans. It could range from 1% to 5% depending upon the company and the loan amount.

Most quick loan lenders allow foreclosure of the outstanding loan amount in exchange for a nominal charge. There are also lenders in the market that do not charge any foreclosure fees from their customers.

One of the notable features of quick loans is the speed at which the loan amount is disbursed. Lenders typically have very minimal documentation when it comes to quick loans. This allows them to disburse these loans within a matter of hours. There are also lenders who promise loan disbursal within a few minutes even to new customers.

Many quick loan providers offer insurance coverage to customers against the loan amount borrowed. If something happens to the customer during the loan tenure, this insurance will helpthese companies recover their dues.

DISCUSSION

AI like blockchain is a revolution in technologies. It makes work of different industries easier and more effective. The development of AI leads to great revolutions in all industries but the most useful is AI in lending and loan management.

Specialists are sure that the market volume of AI-technologies will grow by 31% annually. It is forecasted that by 2022 this figure will amount to $52.5 billion, which is four times more than in 2017. Gartner experts believe that during the next few years income from AI will be 3 times bigger than now annually. Automated systems cost banks 50-90% less than the work of hired employees. AI increases the quality and speed of service, in particular when analyzing the creditworthiness of the client.

Banks management announced plans to issue most loans to individuals based on AI solutions. With the help of the AI-system, the decision on lending is made within a minute. Parallel testing is conducted with the participation of people who also make decisions on granting loans. This is necessary to assess how effectively the AI works. Soon all the questions on crediting will pass to the area of responsibility of AI.

The results of the work of AI are satisfactory: the level of overdue loans has decreased (compared to the period when only a person was responsible for the decision).

Artificial intelligence in credit scoring can save time and total costs of the institution. Germany Aareal Bank was helped by the AI to increase own profit. Thus, now the decisions to grant a loan are made more efficiently, and the bank does not lose money on unscrupulous borrowers.

AI significantly increase profit in any sphere. If a person's business has not enough money for developing own AI, he can take personal online loans and create own system for increasing profit. He can contact the Top Personal Loan Lender and get quick approval. AI technology for lending to both individuals and businesses is becoming more popular in large financial institutions. Active development of this area is taking place which increases the total profit of the loan sphere.

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