

Systematic Review & Implications of FinTech Instruments in Indian Micro Small and Medium Enterprises

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Abstract One of the recent developments taken place due to the evolution of technology is FinTech. The operations of FinTech instruments across various sectors have brought benefits all around. There are several FinTech instruments that have been launched in the market recently. Out of them, two of the most prominent ones involve the use of P2P lending and Crowdfunding as a source of funding among the businesses. Therefore, this study is an attempt to conduct a systematic review on these two FinTech instruments and wants to draw the feasibility of its application into the Medium Small and Micro Enterprises along with the start-ups evolving in a developing country like India. The study considers a detailed review of 40 articles, 20 of which correspond to each type of instrument. The study looks into a number of different aspects to integrate the outcomes. The results of the review show that the use of FinTech instruments successfully causes an increase in the compounded annual growth rates along with providing a hassle-free source of funds to smaller and innovative businesses. The study suggests the extension of use of FinTech instruments such as P2P lending and Crowdfunding in the medium and small size enterprises as well. As in a developing nation, the role of upcoming ventures plays an inevitable role. It can be successfully made to move towards development by including the two Fintech instruments considered in the

study. This would help in generating a profitable environment for the MSMEs and make others around aware of these sources of funding especially in a developing country like India. Moreover, it would contribute towards the generation of employment through the optimal funding of the potential MSMEs and start-ups.

Keywords FinTech, P2P lending, Crowdfunding, MSME, CAGR

1. Introduction

The present world is majorly focusing on the use of more and more technologically advanced products for the growth and development of their businesses. This applies to a number of sectors in the markets including the financial sector. Ettinger [1] mentioned FinTech as an acronym for the term financial technology. This definition engulfs the concept of combining one's expertise in banking with that of the modern technological techniques. However, since then the definition of FinTech is managed with the updates on a number of other aspects [2]. This includes innovation becoming an integral part of the process. In totality, FinTech has allowed the financial

sector to improve its course of operations to a great extent [3]. The major sources of FinTech across the sectors include digital payment systems, crowdfunding based on online modes, P2P lending in marketplaces or having robo-advisors for various wealth management practices. According to the reports by Statista Research Department [4], the total transaction value through the digital payment system in 2021 is expected to be around 60 million US dollars. The alternative lending methods made available due to FinTech services are expected to generate around 95 million users by the year 2025. The highest record of investment by companies in FinTech was reported in 2018 where 112 billion US dollars were invested across the globe. The investments since then are continuing unconditionally. This clearly shows the impact FinTech has made in the present times and how its growth in the future is to further grow. The study here is an attempt to provide a review on the impact of FinTech on the compounded annual growth rate or CAGR using FinTech instruments such as crowd funding and P2P lending and determine its scope across the Micro Small and Medium Enterprises (MSME). The potential of use of FinTech as implied from its uses across other sectors reveal the numerous capabilities in the MSMEs as well. The aim of this study is to gather the improvements made across different sectors due to the implementation of FinTech services in their day-to-day activities in the business and develop the important areas impacted from their uses and how it can be beneficial for the MSME sector as well.

2. Background

As mentioned above the term FinTech is used as a short form for financial technology and refers to the combination of technological instances on the financial aspects of a business. Knewton& Rosenbaum [3] provided a structure for the various prospects undertaken by the FinTech industry as a whole. The structure is given in Figure 1.

The figure shows the money alternatives along with capital intermediation, infrastructure and InvestTech. Although all of these are important aspects of FinTech, this paper especially focuses on two instruments namely- crowd funding and Peer -2- Peer lending or P2P lending. While P2P falls under money alternatives of FinTech, crowd funding is a part of InvestTech. Money alternatives refer to the firms' providing services to its consumers solely based on money. However, InvestTech is related to trading using algorithms, applying financial intelligence to the crowdfunding sources and other such applications in investment.

The payment systems associated with FinTech offer payment options which are far more advanced and efficient as compared to the traditional banking services. Nowak et al. [5] stated that for small businesses, P2P lending offered through the use of FinTech comes as a source of financial strength to them. One reason for the attractiveness of the P2P lending source is the reduction in the processing time [6]. They further stated that P2P lending acts as both a substitute as well as complement for the loans provided by the banks.

As the name suggests, crowdfunding refers to the process of gathering funding from the crowd. Crowdfunding through FinTech has managed to give rise to a platform which has not been done previously. It allows investors to connect and make their way towards a common financial goal [3]. The platforms in crowdfunding often seen to specialize in a particular type of asset. The people associated in the process can be referred to as automated brokers who help funders to reach out to each other without much difficulty. Crowdfunding can be referred to as a microfinance who works through equity funding rather than credit. Both the FinTech instruments can be seen to have a close connection to the MSME guided programs. Thus, it would be quite interesting to note if there lies a chance for the optimum implications of FinTech in MSMEs.

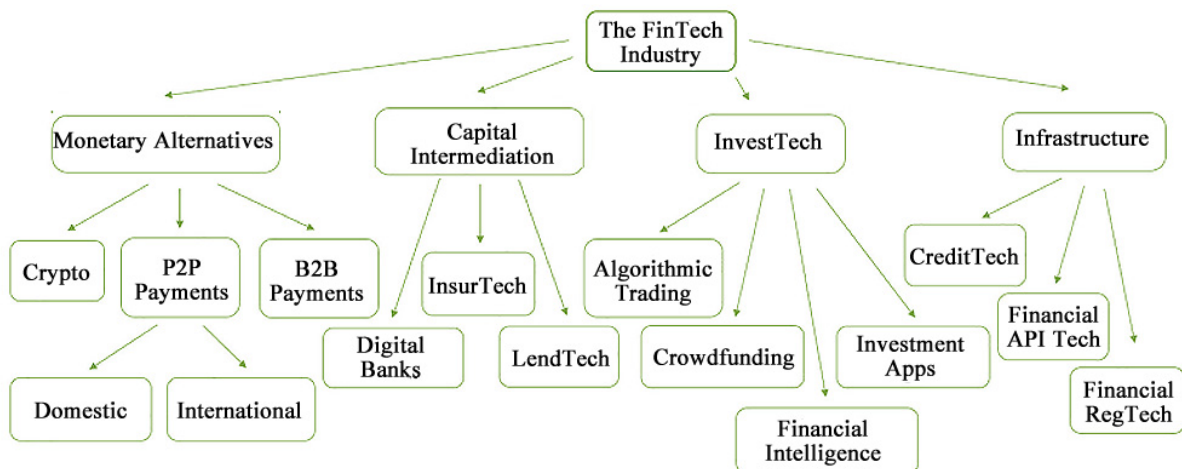


Figure 1. Aspects of FinTech by Knewton& Rosenbaum [3]

3. Methods

The methodology followed here for conducting the review is based on systematic approach for the selection and interpretation of gathered data. This method helps in forwarding the review from the point of view of the researcher. It makes the content easier to understand. This review deals with identifying the role of FinTech in the improvement of CAGR across a number of sectors through the use of FinTech instruments- P2P lending and Crowdfunding. The prime requirement in a systematic review is to gather articles from the past literature and present the contribution made in those articles. The search for the articles on the topic is done in the Scopus database as it is one of the most prominent and reliable data storing recourse. As Web of Science and ScienceDirect are covered under the Scopus database, it can be concluded that the articles included are from the mentioned database. The search is made in the database with keywords such as “FinTech”, “P2P Lending”, “Crowdfunding”, “CAGR” etc.

The results generated are then shortlisted based on the set criteria for selection.

For the data extraction process from the generated results, the PRISMA guidelines are followed. The process allows the researcher to shortlist the relevant articles and arrive at the required set of articles. Once the search results appear, they are screened based on their titles. In the second stage, the screened articles are shortlisted based on analysing their abstracts. Finally, the list of papers selected is reviewed in detail and is discussed in this article. A flowchart representing the PRISMA method followed for the study is given below.

The diagram reveals that a total of 2685 papers were identified in the initial search. Out of these papers after discarding the ones not meeting the criteria for the review, a total of 40 papers are finally reviewed for the purpose of the study. The results from the review are presented in the form of a detailed table indicating the important components and are presented in the next section.

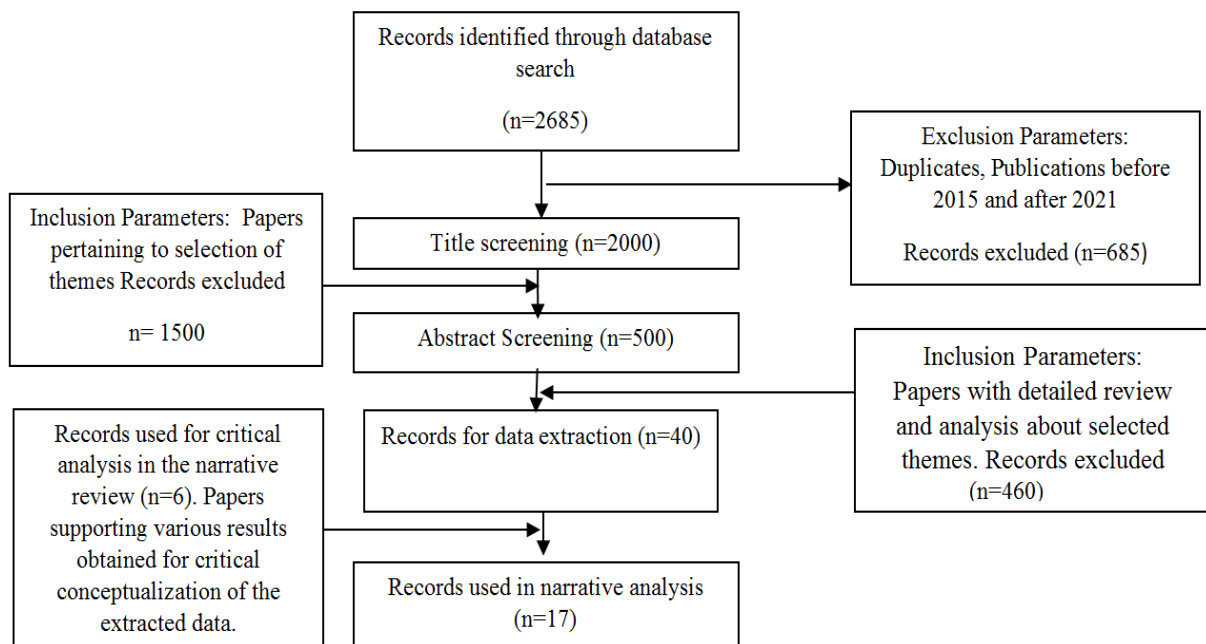


Figure 2. PRISMA for the Systematic Review

4. Results

The application of FinTech across a number of sectors in the market is quite evident. The FinTech instruments to be considered in this study include P2P lending and Crowdfunding. For each of these instruments two separate tables are created.

Table 1. Summary of Articles involving P2P Lending Instrument

Serial No.	Author/s	Objective of the study	Method used	Sector	Overall productivity benefits highlighted
1	[7]	To examine the financial access of P2P lending platforms and SMEs	Quantitative with secondary data	Financial	The results suggests that the managers of SMEs can meet the liquidity requirement of their firms using P2P lending
2	[8]	To examine the interest of investors in the interest rates of Chinese P2P lending market	Quantitative with secondary data	Financial	The results show that a decrease in the attention of the investors can lead to a decrease in the interest rates of these platforms by 15%
3	[9]	To determine the characteristics of online P2P lending platforms	Quantitative with secondary data	Financial	Borrowers in comparison to lenders look for smaller and newer platforms and the relationship between average rate of interest and the number of investors is inverted U shaped
4	[10]	To examine whether P2P lending markets can reduce the exclusiveness associated with traditional financing	Quantitative with secondary data	Financial	The findings indeed agree that these P2P lending methods can cause a weakening effect to the traditional financial markets
5	[11]	To discuss the strategies and stages of developing a P2P lending platform	Qualitative with secondary data	Financial	The stages of developing a P2P lending platform must focus on partners, lenders and borrowers serially in the sequence
6	[12]	To examine the role of gender in the P2P lending system	Quantitative with secondary data	Financial	The results find that female borrowers have a better rate of loan repayment performance and generate higher profits with lower risks as compared to the male borrowers
7	[13]	To measure the credit risk assessment of P2P lending platforms	Quantitative with secondary data	Financial	The use of BP neural network helps in achieving better results compared to traditional regression method which can help in reducing the risk of investors
8	[14]	To understand the adoption of FinTech instruments amongst the German households	Quantitative with primary data	Financial	The results suggests that households are comfortable with the use of technology and trust the use of such innovative instruments in FinTech including P2P lending
9	[15]	To discuss about the legal protection of lenders in the P2P lending system	Qualitative with secondary data	Financial	The lender must be legally protected in order to avoid the misuse of the various conditions of the loan

Table 1. Continued

10	[16]	To understand the concept of P2P lending from the sharing economy perspective	Quantitative with secondary data	Financial	The rules and regulations imposed on these lending platforms restricts their functioning a large extent. However, it must be used to establish the financial democracy of both lenders and borrowers
11	[17]	To have an overall idea about the P2P lending performance in China through a 2020 perspective	Qualitative with secondary data	Financial	The region although having a setback in P2P lending does have high potential to gain back its place in the market in the future
12	[18]	To determine the impact of P2P lending on bank loans	Quantitative with secondary data	Bank	The average rate of P2P lending is seen to have a positive effect on the domestic bank loans provided
13	[19]	To determine the P2P lending system for an Islamic platform	Qualitative with secondary data	Financial	The Islamic platform helps in performing all the operations digitally and is based on profit and loss partnership
14	[20]	To determine how P2P lending plays the intermediation role in finance	Qualitative with secondary data	Financial	The role of P2P lending platforms does not comply with that of banks in accounts of creating money and managing risks. It aims to provide a fixed source of income to its lenders
15	[21]	To examine the methods through which P2P lenders reach out to regions not covered by the banks	Quantitative with secondary data	Banking	The study finds that the areas where the local economy performance is not up to the mark generate better requirements for such lending schemes
16	[22]	To enquire about the safety promises and financial supervision moral in P2P lending	Quantitative with secondary data	Online Platform	The study reveals not having proper disclosure of information results in the deteriorating condition of credit rating quality along with moral hazard
17	[23]	To determine the factors affecting successful loans in P2P lending	Quantitative with primary data	Online Platform	The successful loans in online P2P funding are dependent on repayment period, interest rate, borrowed credit etc.
18	[24]	To determine the abnormal lenders from the lending data in P2P	Quantitative with secondary data	Financial	The abnormal outliers in the data can be seen to have bad credit scores
19	[25]	To examine the impact of social media infusion on online P2P lending	Quantitative with secondary data	Financial	Information on loan, credit and social media are the most important factors in the context
20	[26]	To determine the factors impacting on the defaults of P2P lending	Quantitative with secondary data	Financial	The defaults happening in the loans can occur due to the present conditions housing conditions, credit risks and history along with indebtedness

Table 2. Summary of Articles involving Crowdfunding Instrument

Serial No.	Author/s	Objective of the study	Method used	Sector	Overall productivity benefits highlighted
1	[27]	To examine the immense potential related to the use of crowdfunding for financing treatments for tropical diseases	Qualitative with secondary data	Health	The number of crowdfunding sources used has seen an increase since 2010 however, there lies further scopes in the field of R&D for neglected tropical diseases in the future
2	[28]	To discuss about the crowdfunding aspects of social enterprises in times of crisis	Qualitative with secondary data	Social Enterprises	The study states the possibilities associated with crowdfunding for helping out the social enterprises in tough times like the pandemic
3	[29]	To determine the evaluation criteria of crowdfunding through equity amongst the investors	Quantitative with secondary data	Financial	The success of such sources of funding mostly depends on the product or services offered followed by the nature of the team and the level of commitment and motivation in the founder
4	[30]	To determine the role of crowdfunding in financing R&D projects for incurable diseases	Quantitative with secondary data	Health	The source of finance is highlighted to be very beneficial source of financing diagnostics and therapeutics treatments
5	[31]	To analyse crowdfunding as a doubled edged sword and determine the impact of copycats	Qualitative with secondary data	Marketing	The copycats in crowdfunding can cause a problem for such ventures and can be managed by providing proper guidance on when to open or close such platforms
6	[32]	To learn about the institutional characteristics related to crowdfunding development in various countries	Quantitative with secondary data	Marketing	The crowdfunding market is seen to be saturated in economies having a stable financial market and provides a legally friendly business environment
7	[33]	To examine the role of crowdfunding campaigns for the purpose of thyroid surgery	Quantitative with secondary data	Marketing	The crowdfunding campaigns associated with thyroid cancer being posted through social media is seen to raise (Sajjan & Venkatesha, 2020)
8	[34]	To determine the factors associated with the success of campaigns for crowdsourcing	Quantitative with secondary data	Marketing	The success and failure of these campaigns in India are seen to be based on their category, the type of model involved and the number of days taken

Table 2. Continued

9	[35]	To analyse a duration dependent crowdfunding project choice	Quantitative with secondary data	Financial	The study agrees to the significant role played by duration in a crowdfunding project and how the period can be effectively scheduled for successful funding options
10	[36]	To examine the status of crowdfunding awareness in Turkey	Quantitative with secondary data	Financial	The awareness levels about the sources related to crowdfunding is relatively lower. However, a relationship between innovation and the intention to use crowdfunding is noticed in the study
11	[37]	To enquire about the role played by crowdfunding in walking towards a sustainable society	Qualitative with secondary data	Environmental	The study refers to crowdfunding as a multi-level perspective where both consumers and producers' aspects are enquires
12	[38]	To study about the use of crowdfunding for investments in renewable energy sources	Quantitative with secondary data	Environmental	The results show that in this aspect the crowdfunding process relies on policy support for a long term especially for the small and medium projects
13	[39]	To measure the factors influencing crowdfunding with the use of trust theory	Quantitative with primary data	Financial	The role of trust in supporting the crowdfunding platforms are found to be highly important in generating funds from the investors
14	[40]	To analyse the potential of crowdfunding in case of cardiovascular angle of research	Quantitative with secondary data	Health	The study highlights the high rate of unsuccessful projects in this aspect and hence suggests conducting pilot surveys before raising funds online through crowdfunding for cardiovascular research
15	[41]	To analyse crowdfunding as a tool for marketing	Qualitative with secondary data	Marketing	The use of crowdfunding platforms for marketing purposes along with financial is acknowledged in the study which have enabled marketers to work on their brand values and enhance their brand image
16	[42]	To explore the role of connectivity through social media in the success of campaigns in crowdfunding	Quantitative with secondary data	Marketing	The success of a crowdfunding campaign with the help of social media interaction and its connectivity measures impact positively.

Table 2. Continued

17	[43]	To examine the role of crowdfunding in renewable energy projects	Quantitative with secondary data	Environmental	The authors do suggest that with crowdfunding there are scope for a number of small projects to be financed along with innovative technologies being accepted for financing
18	[44]	To discuss the scope of crowdfunding in medical research	Qualitative with secondary data	Health	The study highlights the massive use of crowdfunding in the medical sector however, the authors urge for more research in the field to come up with effective campaigning methods as well
19	[45]	To discuss about the promotional methods of crowdfunding	Qualitative with secondary data	Marketing	The study suggests the requirement to make the entrepreneurs and investors understand about how the crowdfunding concept works along with promoting the successful examples of the process
20	[46]	To understand if crowdfunding is a positive option for financial innovations	Qualitative with secondary data	Financial	The study acknowledges the loss of banks and traditional modes of finances losing their share to the crowdfunding and refers to it as a potential option for funding in the future

The two tables above show the detailed idea about each of the research articles reviewed based on the type of FinTech instrument used which is P2P lending and Crowdfunding. A total of 40 papers are reviewed out of which 20 papers are with respect to P2P lending and the remaining is on crowdfunding. It has been observed that primary research to visualize the impact of both the aforementioned instruments in the improvement of various sectors of markets including MSME is a less studied topic, especially in the Indian context.

However, reviewing studies that have been conducted to understand the impact of FinTech instruments on various other sectors gave many meaningful observations which are discussed below in further section.

5. Discussion

The FinTech sector all over the world has been recording a high contribution rate. However, in India the realization

about its importance is increasing with every passing day. Here, a discussion on the FinTech sector in India is provided to understand the present condition of operation.

According to Abidi [47], there are 2174 start-ups based on FinTech operating in India. Upon segregating these start-ups, it is found that 405 of them are involved in providing digital payments, 486 are for wealth management 365 are lending companies based on digital modes and 111 belong to the segment of insurtech. Considering the investments in Banking and Financial Institutions (BFSI) sector and the FinTech companies during the period of 2006 to 2020 it is found that the CAGR for the number of funding rounds stands at 14.3% and the total funding CAGR is 17.8% for BFSI while the same are at 20.3% and 35.6% for the FinTech companies. This clearly reveals the increase in funding over the years in the FinTech companies. A pictorial representation for the annual trends seen in FinTech companies is hereby included below.

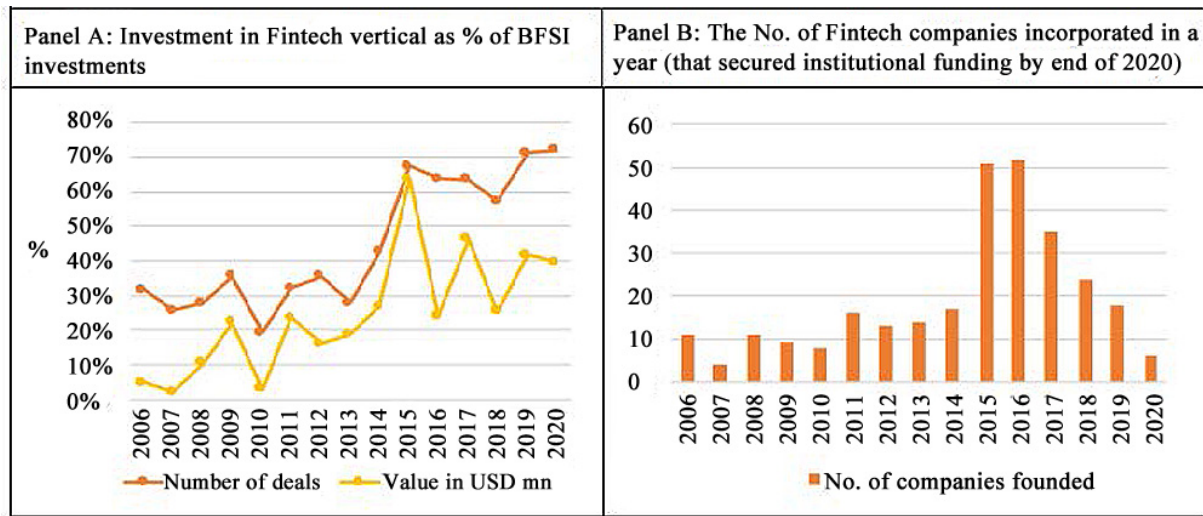


Figure 3. Trends of FinTech Companies for the period 2006-2015 (Source [47])

FinTech sector has experienced a change in the past 15 years. The top players in the market are thus analysed. According to the reports of Venture Intelligence, in 2020 a total of 37 unicorns were reported in India itself and interestingly six of them fit into the FinTech sector. These six companies include- RazorPay, BillDesk, Paytm, PolicyBazaar, Digit and Pine Labs. The six FinTech companies have been included in the unicorn list continuously since 2015. Besides these unicorns, the top FinTech companies operating in India include Paytm, SBI cards and Payments, Cred, InCred Finance and Acko. It can be stated that Paytm alone records 35% of the total institutional funding since 2006 till 2020. The current situation clearly reveals the potential FinTech companies hold in the future and it can be strategically implemented across the MSMEs as well.

The pandemic initiated all over the world in the previous year caused a disruption in the method of working across a number of sectors. The FinTech to saw certain changes when the Covid-19 had started its course around. However, according to the reports, the funding in the FinTech companies is not seen to encounter many difficulties despite the challenges brought together by the pandemic. Around 10 billion U.S. dollars in 2020 and 4.7 billion U.S. dollars in the first quarter of 2021 were received as funding for the FinTech companies. This shows that in an extreme condition like the Covid-19 pandemic, the demand for FinTech companies is seen to be intact while generating opportunities in the future. Thus, it can be concluded that in the coming years, FinTech companies would grow successfully into the financial market and generate a favorable economic situation in the nation.

The discussion from the above tables can be discussed in two sections. The first is related to the FinTech instrument of P2P lending, and the second section discusses the Crowdfunding FinTech instrument. Both the FinTech instruments are seen to have an important contribution to

various sectors, however for P2P lending, most of the focus is based on the financial market and the organisations working on it such as banks, financial institutions etc. In the case of crowdfunding, a marketing point of view can be seen along with their influence in healthcare, energy resources and financial sectors.

P2P lending as discussed in the first section, represents one of the most important instruments of FinTech. This scheme has been provided to users through a number of online platforms. These platforms offer peer-to-peer lending with much effectiveness and are on their way to replacing the traditional methods of financing [22,23]. It is observed that the P2P lending market provides greater benefits to the relatively smaller businesses as they do not require to provide a list of documents to avail the funds [7]. Moreover, in regions where the economic performance is not in its best situation, the P2P lending schemes are seen to generate better results [9,18]. The P2P lending scheme is seen to have a very good impact on the overall performance of organisations. The CAGR is reportedly increasing when the use of P2P lending is implemented [10,13,15]. Moreover, the functioning of these schemes at par with the traditional methods of financing such as through bank loans and financial institutions reveal that P2P lending as a FinTech instrument is well received by customers. A special mention is provided towards its encouraging role to relatively smaller sized firms with innovative ideas, indicating that its implementation in the future in the MSME sector would generate abundant potential.

The second instrument considered is crowdfunding, which implies the collection of funds from the crowd but with the evolved use of technology. The review conducted shows that its impact on projects with innovative ideas is greater than the regular conceptualized projects [36,43,46]. This is the reason why researchers believe that engaging crowdfunding as the method of gathering funds in the case of R&D for incurable and complex diseases can be

optimally purposeful [27,30,40,44]. Apart from that, the role of social media in gathering funds through crowdfunding is highly considered [33,42]. Social media interactions and the connectivity built by the users help in attracting more investors to the table. The marketing strategy involved in campaigning for the crowdfunding projects is also a highly researched area [31,32,34]. The useful campaigning methods in crowdfunding can help in generating more funds than the normal levels. Again, like P2P lending, the special benefit of small businesses is highlighted in the case of crowdfunding as well. This implies how MSMEs can opt for crowdfunding as a novel technique to raise funds instead of going for traditional market loans. The social media element involved in crowdfunding campaigns can help them reach out to a number of credible investors and help in their growth process.

6. Conclusion & Future Outlook

The current market considers FinTech to be a disruptive method across the functioning of various organizations. This review was conducted particularly to understand how the use of two very specific FinTech instruments, which are P2P lending and Crowdfunding can cause an impact on their overall performance. The review suggested that the performances of organizations experienced increase in their performance measures, especially CAGR after the use of FinTech. Moreover, the review focuses on suggesting whether it would be beneficial for the MSMEs in the future to go for these two sources of finance. The results show that both the FinTech instruments used highly benefit smaller businesses. This is due to the fewer requirements for the funds. One interesting aspect to note here is that these sources of funds are highly in favor of innovative ideas employed in businesses. Hence, it would be a profitable situation for MSMEs to get their projects funded through FinTech-based financing and continue their businesses with the utmost ease.

In the future, as per the systematic review is concerned, in order to achieve higher CAGR in businesses, especially the small and innovative ones, the strategic approach towards the use of FinTech based sources of funds is desirable. The investors can be gathered by means of techniques including campaigning using social media. The healthcare sector has tremendous potential for growth with the use of crowdfunding. This would help in initiating a number of R&D projects for the treatment of various diseases that require attention.

Moreover, as the secondary research data shows, in the Indian context, there is extremely low attention towards understanding the impact of FinTech in the development of MSME sector. Hence, the present review serves as a founding stone for planning primary research to understand the adoption rate, impact and utility of FinTech instruments in Indian MSME sector. The contribution of this study is,

therefore, to offer a comprehensive understanding and overview of impact of FinTech adoption by various sectors globally, to map research gaps in Indian context, and point towards the requirement of primary research in this field to make valuable additions to the existing resource of knowledge.

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