Technoarete
e-ISSN: 2583-3049
Technoarete Journal on Advances in E-Commerce and E-Business
Volume 5, Issue 1, February 2026

The Role of Fintech in Facilitating Equity Investment in the Automotive Industry in India

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Abstract

In recent years it is seen that Fintech ecosystems in India are increasing and it is receiving around 45% of FDI as well as domestic collaborations. India in recent years has become a Fintech leader and it is observed that slowly all the industries such as the Automotive Industry is taking into consideration Fintech solutions in their platforms to ease payment options. However, one of the issues that is seen in the country is how the Fintech solutions in the Indian Automotive Industry incorporating equity investments still remain underexplored. The main implications of the research study is to understand how the role of Fintech is facilitating equity investment in the automotive industry in India. The research objectives that are to be explored in the thesis is to understand the growth of Fintech Ecosystems in India with trends of equity investment in India. These are to be critically evaluated within the Automotive Industry with understanding of challenges. The research methods that are used in the study are based on secondary qualitative studies to pinpoint the narrative and empirical understanding from previous research with a justified conclusion.

Keywords

Automotive Industry, Context of Indian markets, Equity Investment, Fintech Ecosystems, Secondary qualitative research.

BACKGROUND

Fintech or financial technology is defined as the financial and banking sectors that are taking into integration of technology into financial services to enhance accessibility, transparency and efficiency. In the past decade, India is shown as one of the fastest growing fintech markets owing to policy reforms, digital infrastructure development and increased penetration of smartphones by 85.5% with more than 931 million to 1.1 billion phone users [1]. Fintech platforms in India have revolutionised the insurance, lending and payment process with increased options for investment services and this have significantly reduced the overall dependence on the conventional financial intermediaries [2]. In recent years, India has one of the largest fintech solutions globally and there is substantial investment inflows with technological integration that is shaping the financial landscape of India. The governmental initiatives such as Digital India have introduced the concept of digital payment systems with financial inclusion programmes that has increased the adoption of Fintech solutions in all the sectors. The researchers such as [3], in their studies have shown that Fintech ecosystems of India have helped in increasing the financial inclusions in all the sectors such as Automotive and have provided financial services to the underserved populations in India. Over the time, it is observed that funding for Fintech solutions of India have increased and it has in total received around USD 2.83 billion in 2020 and in 2021 the figure went up to 8.02 billion USD [4]. This is reflecting on the fact that global companies are having stronger investment confidence within the financial ecosystems of India.

OVERVIEW OF INDIAN AUTOMOTIVE INDUSTRY

One of the sectors of the manufacturing industry in India is the Automotive Industry. According to [5], it is observed that Indian automotive industries are able to provide 7.1% of the GDP growth of India and it is about 49% of the economy collected from the manufacturing GDP. This industry is able to provide around 37 million indirect and direct jobs and by 2030, this sector is aiming to produce around USD 145 billion in production. The product service includes commercial vehicles, electric vehicles and passenger vehicles with automotive component manufacturing. As there is increased demand for the sustainable mobility solution, it is seen that the Indian Automotive sector is showing rapid technological transformation [6]. As there is an increase in trends such as shared mobility services, smart vehicles and electric mobility, there is a requirement of higher capital investment in this sector. It was observed from a traditional view point that funding for the automotive startups and its expansion projects mainly relied on bank financing, private equity funds and venture capital funds. In recent years, it is observed that Automotive sectors are reshaping their capital funding within the Fintech ecosystems as the automotive industry has started introducing Fintech-enabled investment platforms. The technologies such as blockchain and AI have introduced transparent and secure financial transactions within the system of the automotive industry and this has improved the trust among these stakeholders and the investors.

PROBLEM STATEMENT

As there is rapid integration of technological development in the automotive industry, it is observed that many of the small Automotive manufacturers and startups in India are facing access to equity capital. This is due to high investor risk perception, regulatory complexity and there are limited funding networks. The traditional channels of funding mostly require a lengthy process of approval and there is involvement of higher transactional costs. Most of the Fintech ecosystems are able to provide innovation solutions that help in digital investment channels such as online venture funding equity, crowd funding and tokenised investment models. However, there exists issues of limited academic research on how these Fintech ecosystems are supporting the equity investments that are funding the automotive industry of India. The main aim of the research study is to investigate the role of Fintech ecosystems that helps in facilitating equity investment within the automotive industry of India.

RESEARCH OBJECTIVES

The following are the objectives that is to be deciphered in the thesis paper:

- To investigate the growth of Fintech ecosystems in India
- To examine the trends of equity investments within the Indian Automotive Sector
- To critically evaluate role of Fintech Ecosystems that is supporting Automotive Industry
- To evaluate the challenges that are impacting Fintech ecosystems to support Indian Automotive Industry

METHODOLOGY

Research Design

The research design is helpful in explaining the blueprint of the research study and provides understanding of the assumptions that are used in the research study. In the context of this research thesis, there is going to be use of descriptive and explanatory research design. This is because the narrative perceptions of the previous researchers are going to be expressed in empirical format with justified deductive reasoning.

Research Type

The research type that is going to be performed in this research study is based on secondary qualitative methodology as there is no requirement of laboratory settings. Moreover, this is social business study where the narratives, perceptions as well as the understanding of the previous papers is going to be considered thoroughly.

Research Duration

The total duration taken for the completion of the research is 3 months and thus stipulated time framework is decided by the University. This is a cross-sectional research study that means the research study is done from the papers that were published from 2022 to 2026. This is done to increase the overall validity and reliability of the research study with justified epistemological stances.

INCLUSION / EXCLUSION CRITERIA

Inclusion Criteria

All the papers that are selected for the study were chosen between the time frame of 2022-2026. The papers were peer-reviewed articles that were taken from Journals such as Springer, Research Gate and MDPI. All the previous papers that are selected were chosen from reliable databases such as Google Scholar and this is chosen to provide the researcher to locate the research study universally. All the papers are taken from Indian context with global understanding and all the papers selected are English and pdf format of the papers are readily available.

Exclusion Criteria

The papers that are published before 2022 are excluded from the research study and all the regional papers were excluded from the study. The grey literature, unpublished literature and non-peer reviewed papers were not chosen for the research study. The unauthorised databases such as PubMed were not used in the research as it only includes medical journals.

SEARCH STRATEGY AND KEYWORD SELECTION

The search strategy of the study that is used is through use of BOOLEAN operators such as AND, OR and NOT. This is used to conventionally filter the papers to show appropriate results that are required for the study. Moreover, the keyword selection is done as the keywords that are aligned in the Abstract section.

RESULTS

Theme 1: Investigation of Growth of Fintech Ecosystems in India

The research by [7], has shown that the growth of Fintech Ecosystems in India started as early as 1986 and 73% of the firms were created after 2013. The ICT sectors have helped in shaping the Fintech ecosystems of India and then Fintech firms such as PineLabs in 1998 and Billdesk in 2000 were established in India. These companies formed the basis of Fintech ecosystems in India and this is slowly booming and right now India has become one of the largest harbors of Fintech solutions in the world. The publicly owned companies such as Visa and MasterCard have entered Indian markets to establish themself as pioneer in this sector. In more recent times, it is seen that Fintech ecosystems in India have evolved and it has entered into sectors such as neobanks, PropTech and InsurTech. However, there is slower incorporation in these sectors but Fintech solutions have provided the automotive industry with business loans and have established themselves in companies such as Tata Motors.

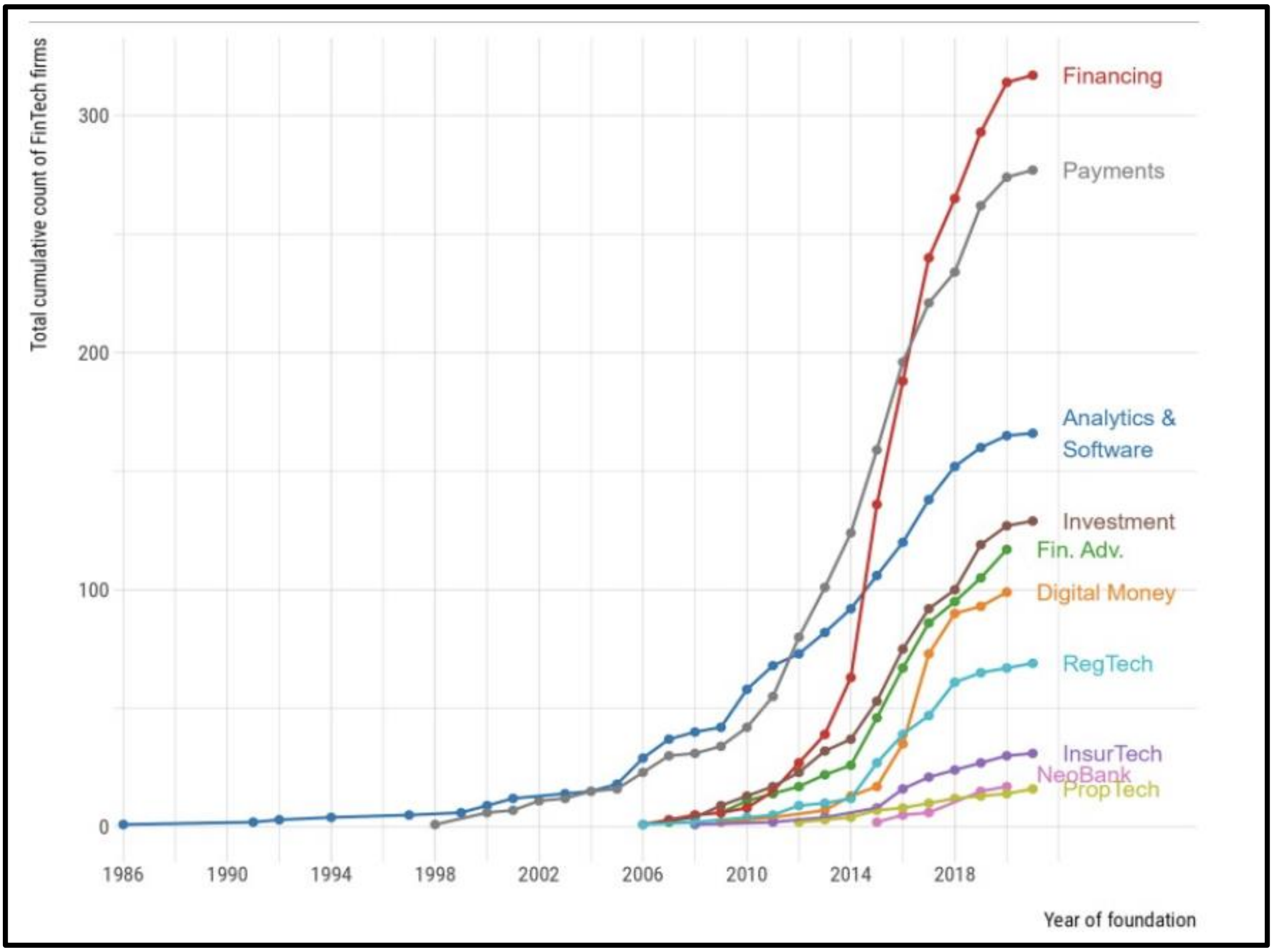

Figure 1. Fintech ecosystems growth in India

The Fintech ecosystems in India have been introduced in larger variables in cities such as Bangalore (316), Mumbai (315) and New Delhi (303) firms. The researchers such as [2], in their study have mentioned that Bangalore in recent years has become a centre for Fintech hubs as there is an increase in ICT and telecommunications companies in this city. Authors have shown that fintech companies are aiming for larger metropolitan cities in India as there is a higher funding rate and median number of finances are coming from international investors which is more than 45%.

Theme 2: Examination of Trends of Fintech Ecosystems in India

The research by [8], have shown that there is revolution in the Fintech ecosystems in India and the metropolitan cities are growing at a faster rate to incorporate all the essential features of Fintech solutions from online digital payments to leveraging of loan options. The domestic investment in fintech solutions is increased in form of payments, finances, insurTech, software investments. The foreign investment in fintech solutions have significantly increased. The authors such as [7], have shown that Bangalore is receiving a total of USD 778 million and it is seen that 45% of all the investors in India are collaborating with Fintech solutions. The San Francisco based US collaborators are higher and about 223 investments are seen from the place. India remains ahead of other countries in terms of getting foreign investment in Fintech solutions and it is seen that China is getting 13% FDI, Japan is getting 15% FDI, and the UK is getting 7%. This is showing that India has emerged as one of the largest developing capital that is getting foreign direct investment and this is owing to the Digital India Initiatives that is taken by the present political leadership in the country. Moreover, the Fintech equity investments solutions in Indian markets are increasing as there is green light received from major regulatory bodies such as Securities and Exchange Board of India, a non-financial and banking finance that is operating in India by getting licence from RBI. The enhancement of the Fintech solutions among the common customers are increased owing to the fact that there is implementation of Aadhaar project and UPI facilitates payment transfers with biometric identification process. The capitalisation and commoditisation seen in the Fintech companies is because of tech-driven ecosystems that are prevailing in India.

Technoarete
e-ISSN: 2583-3049
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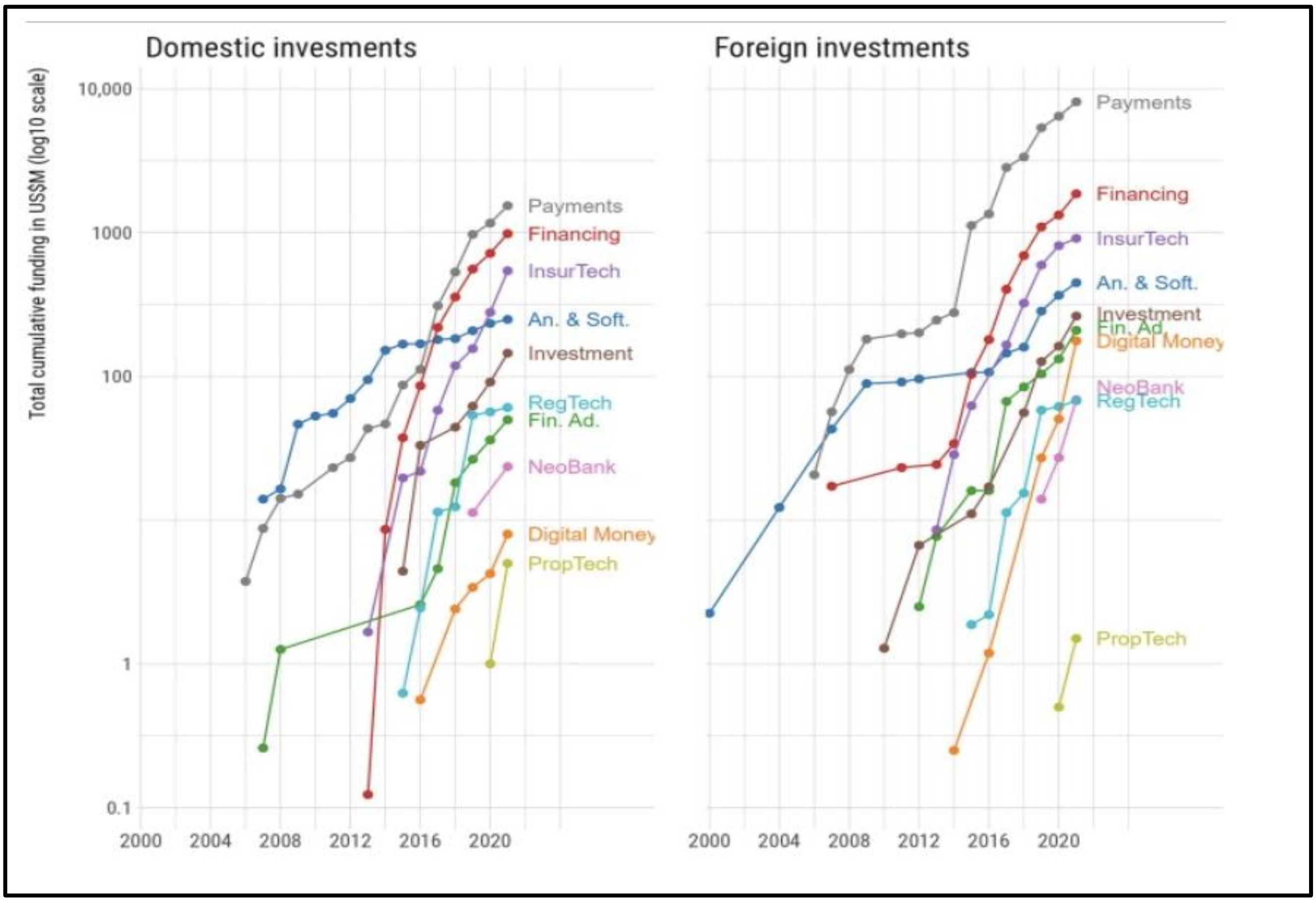

Figure 2. Fintech ecosystems with equity investments trends in India

Theme 3: Critical Evaluation of Role of Fintech Ecosystems that is Supporting Automotive Industry

Digital Fintech ecosystems in India within the automotive industry are divided into three business sectors that includes on-demand services, e-commerce and equity investments trends [11]. The risk factors associated with Fintech regulations in Indian context remains higher as the r-value is showing higher positive regression coefficients of 0.891. This indicates that the financial risks in all the manufacturing and production facilities of the Indian context remains higher and this is seen in all the sectors which are based on peer-to-peer leading systems. Moreover, in the study it has been shown that the automobile industry in India is facing operational risk, liquidity risk, and credit risk, and these are regulated by means of SEBI [10]. Therefore, fintech solutions are trying to provide options that enable collaboration between the financial and automotive sectors, as seen in the cases of Tata Motors and Hyundai. In the fintech market rapid assessment study, it is observed that the introduction of such solutions within the automotive industry is gradually increasing, and in the Indonesian market, more than 73.9% of the markets are adopting these solutions to enhance their discretionary efforts [9]. However, in the Indian contexts, there are gaps observed to introduce equity investments through the use of Fintech solutions.

<table>
<tr><th rowspan="2">Construct</th><th rowspan="2">Indicators Code</th><th rowspan="2">C.R.</th><th rowspan="2">P.</th><th rowspan="2">Regression weight estimate</th><th colspan="2">C.R.</th><th>P.</th></tr>
<tr><th>Risk</th><th>Financial Regulation</th><th>Risk and Fin.Reg.</th></tr>
<tr><td rowspan="4">FinTech Ecosystem</td><td>ECO1</td><td>12.139</td><td>***</td><td>.784</td><td rowspan="10">CR Value Risk to FinTech Ecosystem estimate 4.675</td><td rowspan="10">CR Value Fin.Reg. to FinTech Ecosystem estimate 1.592</td><td rowspan="10">P Value Risk to FinTech Ecosystem *** And P Value Fin.Reg.to FinTech Ecosystem Estimate 0.111</td></tr>
<tr><td>ECO4</td><td>12.681</td><td>***</td><td>.795</td></tr>
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<tr><td>ECO7</td><td>13.257</td><td>***</td><td>.817</td></tr>
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Figure 3. Fintech ecosystem's role in automotive industry in India

Technoarete®
e-ISSN: 2583-3049
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Theme 4: Challenges Impacting Fintech Ecosystems in Indian Automotive Industry

FinTech is transforming Indian automotive industry in recent years through improving equity investment. Such ecosystems force retail investors to participate in EV and auto-component startups increasing capacity of Indian automotive companies to produce sustainable products. However, fintech ecosystem in India faces challenges in investing due to compliance. This industry experiences a transformation in 2025 as enhancement of cross-border expansion and regulatory scrutiny increases funding challenges [12]. Oversight on digital lending and blockchain-based equity tools create issues to maintain business flow in Indian market. Delay in approval in equity and higher compliance costs are threats for this ecosystem to achieve stable growth in automotive industry.

Based on data from 2024 suggests that 8.0% Fintech startups have increased in India. This also highlights that 13.9% of businesses scale up within fintech in recent years. Despite this growth, funding challenges enhance issues for this ecosystem to invest significantly within the automotive industry. Fintech is all about innovative technology and new concepts that can be costly in a smaller automotive business. It is evident that after 2023 capital flow in global ventures of fintech slowed, creating huge impact startups in automotive equity space. Fintech market size of India is estimated at USD 145.09 billion in 2025 as mentioned in figure 1 [13]. Funding volatility enhances uncertainty for auto-components and reduces opportunity to achieve investments.

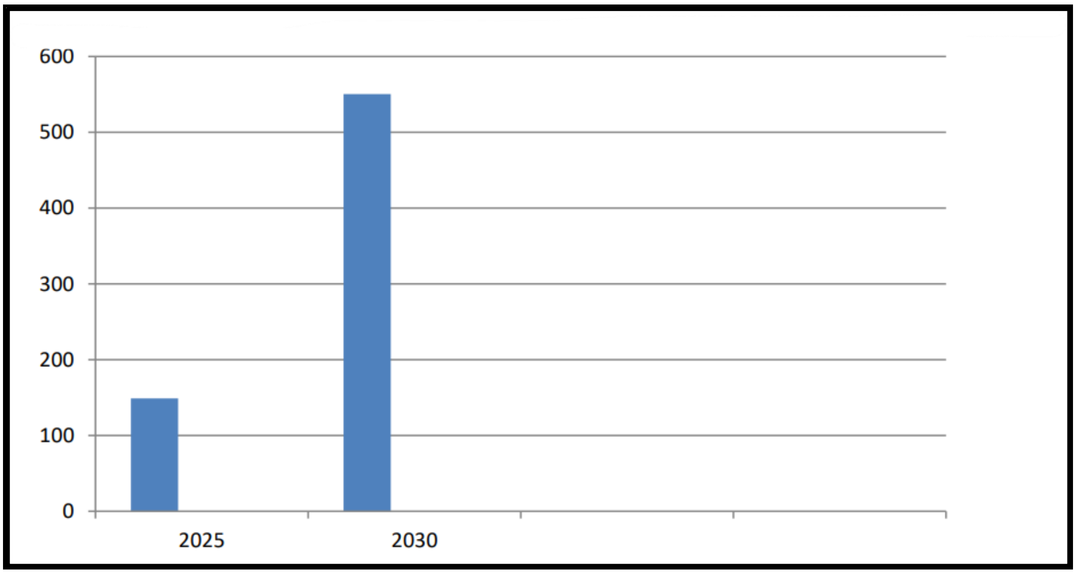

Figure 4. Fintech Market Size of India

There are challenges regarding cybersecurity risks in fintech ecosystems enhance issues for automotive industry of India. Complex regulatory compliance involving RBI guidelines and IRDAI investment rules increased problems of fintech development [14]. Global investment practices also create a direct impact on fintech investment in automotive industry of India. Managing a secure environment to improve data management and lack of knowledge about innovative practices are major issues for fintech platforms. Automotive industry needs significant funding and innovative approaches due to changing consumer preferences with changing market trends. Poor investment infrastructure and delay in decision-making reduce chances for fintech platforms to provide support to automotive industry in achieving technological efficiency.

DISCUSSIONS

This research involves trends regarding growth of Fintech ecosystems in India providing important insights. Detailed description regarding equity investments within Indian automotive sector explains its impact on developing innovative infrastructure. Present study involves role of fintech platforms in offering significant investment to automotive industry and supporting its growth. Highlighting challenges of fintech investment supports organisations to understand effective strategies for avoiding any types of issues. Findings show the crucial role of fintech in democratizing equity markets that align with global research in similar topics [15]. It is also evident that India reduces entry barriers for retail investors to enhance business opportunities like approaches of US and European EV sectors. Findings support technological advancements and involve automation technologies that can improve investment ecosystem. Involvement of blockchain and robot-advisory to maintain automotive equity ecosystem in India highlights a shift toward efficiency [16]. Such innovative practices can ensure growth of automotive industry and also ensure long-term achievement in this uncertain market.

Results highlight that car market of India developed ability to attract US$ 25.85 billion investments increasing opportunities in this sector. Increasing values of car market increase equity inflows that are also crucial to maintain FDI inflow [17]. In achieving electric mobility and increasing productivity in auto-component manufacturing, India needs to focus on its fintech infrastructure. Expansion of automation market in recent years depends on technological adoption that ensures sustainability. Findings clarify that 30% EV adoption is projected to reach 40% of total vehicle sales by 2030 [18]. This initiative needs huge capital investment to fulfil requirements of this industry regarding improvement in infrastructure. FinTech platforms facilitated democratizing access that is crucial for investors to participate in equity funding. Other than that, crowdfunding platforms help automobile startups to raise capital more efficiently. This trend reflects global practices and makes FinTech a key driver of equity investment in automotive innovation in India.

This can be clarified with results of this assessment that digital equity platforms reduced transaction costs and increased transparency. These approaches support startups enabling startups to attract domestic and foreign investors creating huge opportunities to expand business. Reducing dependency on traditional practices to achieve investment and focus on fintech platforms provide quick support to automobile startups [19]. India has a huge market for automobiles and also has a consumer base who show interest in investment. Institutional players are dominating these investment practices through involving advanced financial infrastructure. These significantly guide automotive sector in a right path to achieve significant investment while fintech faces several challenges in Indian market. Lack of knowledge regarding innovative investment tools and infrastructure create major issues. Cybersecurity threat and poor governmental support in increasing internet accessibility and uninterrupted services are also creating challenges for fintech investments. Organisation needs to understand trends and invest on advanced technologies to achieve investment that support growth.

CONCLUSION

FinTech has emerged as a most demanded force in facilitating equity investment in automotive industry of India. This force streamlines capital raising and enhances financing to offer significant investment. It is a fact that shows ability of fintech platforms to accelerate funding for EVs and automotive startups in India. In the past few years, fintech related research and involvement of its concept have enhanced in business development. Increasing involvement of fintech principles, automotive sector of India experiences significant FDI inflows. This information provides important insights regarding practices of fintech platforms in accelerating funding for businesses.

Contribution of this research lies in highlighting approaches of fintech in bridging gaps between investors and automotive innovators. This helps to ensure sustainable growth through increasing adoption of EV in this country. India has a huge market for sustainable automotive products; fintech can guide businesses to improve their practices to align its practices with market trends. Present study is crucial to support further research on similar topics and also guide to explore deeper integration of embedded finance to sustain momentum. Role of fintech in equity investment is not just financial as it helps to shape Indian automotive industry to develop competitiveness.

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