



# International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal  
Impact Factor: 6.5 [www.ijesh.com](http://www.ijesh.com) ISSN: 2250-3552

## **Attitude of MSMEs Towards FinTech Payment Systems: An Empirical Study in Rohtak, Haryana**

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### **Abstract:**

FinTech, an abbreviation for Financial Technology, has rapidly transformed the delivery and usage of financial services worldwide, integrating technology to enhance accessibility, affordability and efficiency. With increasing consumer adoption and government initiatives like Aadhaar, UPI and digital platforms, India has emerged as a major Fin Tech hub. This study investigates the attitude of micro, small and medium enterprises (MSMEs) in Rohtak, Haryana toward Fin Tech payment systems. The research draws on primary data collected from 87 valid respondents, supplemented by secondary sources. Using statistical tools such as factor analysis, correlation, Kruskal-Wallis H Test and Mann-Whitney U Test, the study examines key variables like perception, risk and accessibility across demographics. Findings indicate a strong positive correlation (.411) between the number of FinTech platforms used and the number of weekly transactions. Users' attitudes were generally favorable, but barriers such as poor internet access, technical issues, cybersecurity concerns and lack of awareness were noted. The paper concludes that addressing infrastructure gaps and enhancing trust can significantly increase Fin Tech adoption among MSMEs.

**Keywords:** Fin Tech, MSMEs, Digital Payments, Financial Inclusion, Risk Perception, Technology Adoption, Haryana.

### **Introduction**

The term Fin Tech originates from the term "Financial Technology" in 2014. Fin Tech or financial technology, incorporates numerous technologies into Financial Service Company products to improve their consumers' delivery and use of such services (investopedia.com). Fin Tech is a term that refers to a collection of technological platforms, tools, ecosystems and other elements that work together to make various financial products and services more affordable, accessible and efficient. Fin Tech refers to different technologies that impact financial transactions/payments, investments, lending, funding, Robo-advisors, crowdfunding, cryptocurrencies and so on (Yue Ma, DeLiu; 2017). Consumers are increasingly aware of Fin Tech as an inseparable part of their daily lives, with 1/3 of them using at least two or more Fin Tech services (EY Fin Tech Adoption Index, 2017). In 2020, the valuation of India's Fin Tech industry was at INR 2.30 trillion and between 2021 to 2026, predicted to grow at a CAGR of 24.56 percent, breaching the barrier of INR 8.35 trillion (Business wire.com). By 2022, 60 percent of global GDP is predicted to be



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digitized, with growth in every industry delivering digitally improved services; by 2030, major cities will account for 86 percent of global GDP growth (Findexable.com).

Institutions such as IRDA (Insurance Regulatory and Development Authority), RBI (Reserve Bank of India) and SEBI (Securities and Exchange Board of India) all contribute to the development of India's FinTech sector. CII (Confederation of Indian Industry), ASSOCHAM (Associated Chambers of Commerce and Industry in India), COAI (Cellular Operators Association of India), SIAM (Society of Indian Automobile Manufacturers), FICCI (Federation of Indian Chambers of Commerce and Industry) and other industry associations work to represent the interests of their members ([indiafintech.com/forum/](http://indiafintech.com/forum/)). The India FinTech Forum (a non-profit organization) provides a forum for various FinTech companies to collaborate and share their perspectives on various policy issues. Due to Aadhar, UPI and other technologies, Indian FinTech firms have abundant chances unavailable anywhere else in the World ([indiafintech.com/forum/](http://indiafintech.com/forum/)).

## Review of Literature

(Made et al., n.d.) evaluated the significance of E-commerce, FinTech Transactions and HRQ (Human Resource Quality) based on the competitive spirit of different small and medium Apparel industries of Denpasar city of Bali. It was a primary data-based study using a sample size of 87 out of 664 sectors (population). The observation of the value of R-square in the F test the importance of different variables in the study. The study concluded that all the variables, i.e., E-commerce, FinTech Transactions and HRQ (Human Resource Quality), partially positively and significantly impact various small and medium Apparel Industries' competitive spirit in Denpasar city of Bali. (Raj & Upadhyay, 2020) studied the influence of FinTech (Financial Technology) in promoting Financial Inclusion in India. The study concluded that achieving the ultimate goal of Financial Inclusion depends on the synergistic efforts of different mainstream financial entities and players like NBFCs (Non-Banking Finance Companies) and Fintech firms. By leveraging Alternative Data, Big Data and Machine Learning to underwrite the borrowings and develop credit scores of customers having a limited credit history, such technology can enhance the penetration of different Financial Services and further accelerate Financial Inclusion in India. (Siddiqui & Siddiqui, 2020) measured the effect of different Telecommunication Services on promoting Financial Inclusion in India. A sample size of 200 households each from West Bengal and Gujarat justified the corroboration and comparison of the model. For developing and evaluating the model SEM (Structural Equation Modelling) was used in SmartPLS. The latent constructs used in the study are Awareness, Usability and Ability. The study concluded that telecommunication has a positive impact on Financial Inclusion, i.e., all three constructs selected (Awareness, Usability, Ability) are positively related to each other. In both the states, eight paths out of 9 are significant, highlighting the impact was almost universal irrespective of the growth level of the states. (Hu et al., 2019) conducted an empirical study grounded on the Extended TAM (Technology Acceptance



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Model). Variables such as User Innovativeness, Brand Image, Government Support, Perceived Risk, etc., were used to check the adaptability rate of FinTech services by different bank users. The study used the sample size of 387 bank users to test the relationship among the latent variables used in SEM (Structural Equation Model). The study concluded that users' trust significantly impacts their Perception of FinTech services' adoption. Perceived Risk, Perceived Ease of Use does not considerably affect their perception of their adoption of FinTech services. **(Kandpal & Mehrotra, 2019)** made an effort to analyze the role of different FinTech and Digital Services related to Finance to promote Financial Inclusion in India. It was a secondary data-based study having factors like Low Internet Penetration, Lack of Bank Accounts, Absence of Required Hardware and the correct information, Deficiency of Funds, etc., as the reasons for Low FinTech Development in India. The study concluded that Customer's Trust and Confidence in existing/traditional Banking systems create hesitation among customers to adopt new technologies. Risky Security and Privacy System is one of the main reasons for the failure of this system even though it is easier and cheaper than traditional ones. **(Breidbach et al., 2020)** outlined a research blueprint to guide the research on the digital remodeling of Financial Services Systems using disruptive FinTech innovations by new contenders to challenge traditional financial institutions in the digital age. The research looked at the sociological and managerial phenomenon of FinTech in order to identify and respond to the concerns and challenges associated with the digital revolution of financial services. The study is secondary data-based and it assessed a corpus of 1545 published practitioner papers linked to FinTech, Managerial Challenges and the subsequent definition of a Novel Research Agenda. **(Ma & Liu, 2017)** studied various aspects of FinTech and Crowdfunding. The study was secondary data that analyzed the trends related to 'FinTech' and 'Crowdfunding' from 2004-01 to 2017-01 worldwide. The study considered the findings and insights of 7 papers and attempted to bridge the gap between FinTech and Crowdfunding industry's development. **(Vasiljeva & Lukanova, 2016)** compared and evaluated the interaction of FinTech with Commercial Banks. The study considered that the developmental trends in commercial banks influence the traditional business models using FinTech. The study was primary data-based, having a sample of 231 respondents. The study observed that FinTech services are preferred over Banking Services for payments because of their security and trust factors. The study suggested innovating a hybrid system by combining Traditional banking with FinTech Services to fulfill customers' requirements effectively.

## The objective of the study

To investigate and validate the users' Attitude toward FinTech Payment System in India, focusing on MSMEs in Rohtak, Haryana.



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## Research Methodology

The study is empirical and based on the primary data supplemented by secondary data gathered from various reliable sources such as newspapers, periodicals, magazines, journals and official FinTech websites. The intended cumulation of the sample was chosen from the population using the purposive cum convenience sampling technique. A carefully planned questionnaire was used to obtain information from the respondents (MSMEs using FinTech services for collecting payments in Rohtak city of Haryana). The questionnaire was sent to 250 randomly selected respondents; 98 responses were received, 87 were considered valid and the same were analyzed using various statistical techniques in MS Excel and SPSS to draw inferences using Tables, Frequencies, Percentages, Factor Analysis, Correlation, Mann-Whitney U Test, Kruskal-Wallis H Test and so on.

## Demographic Profile of Respondents

Table 7 exhibits the KMO and Bartlett's Test of Sphericity findings. Individual and multiple variables are analyzed using the KMO (Kaiser-Meyer-Olkin) Test, which compares the squared Correlation between variables to the squared partial Correlation. The KMO test has a range of values from 0 to 1. The number 0 represents that the sum of partial correlations is mainly connected to the sum of correlations, indicating the diffusion of the correlation pattern (in that case, the use of factor analysis is inappropriate). A score near one, on the other hand, indicates that the correlations are pretty compact and that factor analysis yields credible factors. To consider samples suitable for factor analysis, the minimum weight accepted for KMO is .5. The computed value of KMO statistics is .696, which is greater than the accepted value, indicating that the data obtained is sufficient for factor analysis in the study. The Bartlett Test of Sphericity determines if a variance-covariance matrix is proportional to an identity matrix. At a 1% level of significance, the table value of Chi-Square with 36 degrees of freedom is around 57.34. The computed value of the same is 200.176, indicating that the results are substantial enough to warrant further investigation.

Analytical Table 8 demonstrates the overall Variance of all the components. The process of determining the statistical significance of the statements to extract a factor in factor analysis is known as extraction in statistics. The selection of the factor adheres to the magnitude of the eigenvalue associated with that particular factor. The Eigen Value is a metric for determining how much of the observed variable's common Variance is explained by a component. A component with an eigenvalue greater than or equal to 1 explains more Variance than a single experimental variable. Principal Component Analysis (PCA) is a multivariate methodology for identifying the linear components of a set of variables and extracting the data in the Table. The critical assessment of the Table identified three factors to disclose the enormous Variance (64.654%) among the components chosen for the study.



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**H<sub>01</sub>: There is no statistical significance between the number of FinTech used and the number of FinTech transactions per week in the MSMEs.**

Analytical Table 11 shows the degree of Correlation between 2 variables, i.e., the Number of FinTech used in the MSMEs for payments and the Number of FinTech transactions done per week for payments in the MSMEs. The correlation coefficient measures the degree of the association between two or more variables at a given moment. Pearson's Coefficient of Correlation is utilized in the Table as needed for the data. Even at a 1% level of significance, the degree of linkage, i.e., Correlation, is significant (.411), implying a positive relationship/association between the number of FinTech transactions for payments. As a result, the null hypothesis was repudiated, demonstrating a substantial and positive relationship between the number of FinTechs used and the number of FinTech Transactions done in the MSMEs for the payment processing.

**H<sub>02</sub>: Perception, Risk and Accessibility Factors had the same distribution across all the categories of the Age, Gender, Educational Qualification, Annual Income of the Business, No. of FinTech used in the MSMEs, No. of FinTech transactions per week in the MSMEs for payment by the Respondents.**

Two tests (Kruskal-Wallis H Test and Mann-Whitney U Test) are as per the nature of the categories used in the hypothesis.

Analytical Table 13 reported the results through the eyes of the Kruskal-Wallis Test based on various Demographic aspects of the respondents. Asymptotic significances justify the results and the minimum level considered is .05 to accept the hypothesis as significant.

## **Conclusion and Suggestions:**

The research highlights that FinTech has become an integral part of payment systems among MSMEs, driven by ease of use, accessibility and efficiency. The study found that demographic factors like age, gender and education did not significantly hinder adoption; rather, technical and environmental factors, such as connectivity and cyber risks, were the main challenges. The positive relationship between the number of FinTech tools adopted and transaction volume underscores the potential of digital finance to enhance business operations. The findings suggest that to boost adoption, stakeholders—including government bodies, regulators like RBI and SEBI and FinTech companies—must invest in digital infrastructure, user education and robust security measures. MSMEs can leverage these systems to improve efficiency and financial inclusion, but scalability requires addressing risk perceptions and technological barriers.

## **Limitations of the Study**

There are mainly two limitations in the study primary and secondary data. The use of secondary data is solely to provide an overview. The study's primary data sample size was only 87 and it was limited to MSMEs in the Rohtak City of Haryana. More in-depth study, encompassing various sectors, locals and more significant populations, might be done.





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