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Barriers of Fintech adoption in MSMEs: Moderating role of Innovation Culture

Research-in-progress

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Abstract

Micro Small and Medium Enterprises (MSMEs) are at the core of any economy. The financial inclusion MSMEs is essential for any country that dreams of growth. Fintech-based innovative solutions can come to the aid. Not only do they help MSMEs in acquiring a quick loan through digital and peer-to-peer lending, but they also help them in bookkeeping, wealth management, and risk mitigation. However, even with so many helpful solutions, the adoption of Fintech has been lagging. This study tries to find out what are the apprehensions or barriers among the MSME owner towards Fintech adoption. And how cultural innovation manipulated this relationship. The major contribution of our study will be the identification of the most persistent barriers. The study has high practical value for, Fintech firms, government regulators and policymakers, and MSME owners.

Keywords Fintech, MSMEs, digital lending, innovation culture, financial inclusion

1 INTRODUCTION

The advancement and innovation in information technology are changing the way people perform the financial activity. The finance or financial sector has been among the major beneficiaries of digital innovation (Mention 2019). The use of information technology in doing finance gained momentum after the global financial crisis of 2008, it was propelled with advances in e-finance and mobile technology (Lee and Shin 2018). These changes have made financial services more accessible and affordable to everyone (Leong et al. 2017) and can be seen as a major departure from the traditional way of doing the financial activity (Davis et al. 2017; Goldstein et al. 2019). Fintech is an amalgamation of two terms Finance and Technology and can be described as "... any innovative idea that improve financial service processes by proposing technology solution according to different business solutions" (Leong and Sung 2018). Major applications of Fintech are in insurance services, crowdfunding, payment gateways, lending, wealth management, and capital market (Lee and Shin 2018). Whereas a report by Deloitte has identified seven major applications of Fintech viz, digital payment, alternative lending, insurance tech, investment tech, regulation tech (solutions to improve automation of regulatory compliance), and bank tech (Deloitte Touche Tohmatsu Limited 2019), pointing towards that payment, lending, and insurance will benefit the most from Fintech. Digital payment and alternative lending are the major recipients of investment over the years in India (Deloitte Touche Tohmatsu Limited 2019).

As per the latest report by Deloitte (Deloitte 2020), the global Fintech revenue in 2018 was about USD 108 billion and is expected to grow to more than USD 221 billion at the end of 2024 with a CAGR of 11.7% (pre-COVID forecast). Asia-Pacific or APAC and Americas regions have the largest market share of around 40% each. Digital payment is generating more than 80% of the revenue. As per a report by Mordor Intelligence, the APAC region will see the highest growth in the next five years (Mordor Intelligence 2020). According to KPMG, the global investment in Fintech has witnessed a V-shaped rebound, rising from USD 87 billion in the second half of 2020 to USD 98 billion in the first half of 2021. A record 2,456 deals were done globally in the first half of 2021. APAC region has contributed with 467 deals in the first half of 2021, with the absence of any large Fintech deal. India leading the investment in the region with a total of USD 2 billion coming from 96 deals in the first half of 2021 (Pollari & Ruddenklau, A. 2020). Fintech are at the core of financial inclusion (Vegesna 2021).

In the digital lending model, the major of Fintech is that they do not require financial institutions to act as intermediaries between lenders and borrowers (Rosavina et al. 2019; Wang et al. 2015). Fintech benefits are not limited to Peer-to-Peer (P2P) lending, they provide loans on a lower interest rate, they cut through a level of checks and balances to expedite the process of the loan application, in some other scenarios they help in attaining investment management advice at a reasonable cost. Fintech enables Micro Small and Medium Enterprises (MSMEs) to manage working capital requirements in terms of the cost involved in rent, bills, and transportation. Moreover, Fintech innovations help MSMEs in managing the book of accounts, tax filing, payments (receipt and disbursement), etc. (Abbasi et al. 2021)

Even with the multitude of benefits offered by Fintech, their adoption is still lacking in the MSME sector. The majority of the apprehensions among the MSME owners arises from the risk related to financials (e.g. loss of revenue, the additional cost associated with Fintech services), regulations (e.g. legal and policy-based changes), technological (e.g. lack of digital literacy, telecommunication coverage, security risk), operational (unavailability of separate finance system in the company), financial literacy (e.g. inability to completely understand financial jargons) (Ryu 2018a).

Innovation culture can be defined as a "style of corporate behavior that is comfortable with, even aggressive about, new ideas, risk, and failure" (Unger et al. 2014). Innovation culture comprises of beliefs, attitudes, values, and behavior shared among the employees that leads to enhanced performance across the company's offerings and process innovation. (Martín-de Castro et al. 2013). Companies should try to foster an environment that propagated innovation culture across levels (Ranjan 2019; Yun et al. 2020).

Although a large group of literature in the past have covered Fintech adoption and adoption barriers to a varying degree. Majority of them coming from mobile payment adoption and its barrier. This study will address the Fintech adoption barrier among MSMEs. This study is unique in two ways, this shall be the first study in our limited knowledge to study barriers of Fintech adoption among MSMEs and understanding the moderating role of innovation culture. To this we propose the following questions:

- What specific barriers affect Fintech adoption among the MSMEs?
- How does innovation culture affect the adoption of Fintech among MSMEs?

The study is of huge practical implication as MSMEs are highly and truly regarded as the engine of the economies, contributing to Gross Domestic Product (GDP) and providing employment to a large set of population. Addressing the woes and worries through Fintech innovation by reducing their apprehension towards such innovation will greatly expedite the adoption process.

Section 2 provides the necessary background and hypothesis development. Section 3 details the intricacies of the methodology to be undertaken for the study. Section 4 talks about the expected outcome and conclusion of the research.

2 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Micro, Small and Medium Enterprises

Micro, Small, and Medium Enterprises are the backbone of any country (Singh 2015). As per the latest report issued by the Ministry of MSME, the total contribution of MSME in the Indian GDP amounts to around 30%. There are around 63.3 million MSMEs in India, generating a staggering 110 million employment (Ministry of MSME 2021). Fintech has the potential to accelerate the financial inclusion of MSME by arguing that Fintech can facilitate quicker financial services through superior IT infrastructure, they do not handle deposits thus excusing them from a lot of regulations, their partnership with traditional Micro Finance Institutions (MFIs) helps them in lower operational cost, their capability to work 24x7 helps them in issuing emergency fund, and lastly, they are more accessible as their services can be availed through smartphones (Ozili 2018).

2.2 Innovation Culture

Innovation culture is the subset of organizational culture (Unger et al. 2014). Dobni (2008) has identified four dimensions of innovation culture viz, "...intention to innovate, the infrastructure to support innovation, operational level behaviors necessary to influence a market and value orientation, and the environment to implement the innovation. Risk-taking and openness to new ideas are central to the idea of innovation culture (Martín-de Castro et al. 2013). We hypothesize those MSMEs that foster innovation culture will negatively impact the relationship between perceived risk and Fintech adoption intention.

H1: The effect of perceived risk on intention to adopt Fintech in less in organization with lower cultural innovation and vice versa

2.3 Barriers of Adoption

2.3.1 Perceived Risk

Ryu (2018) has defined perceived risk in the Fintech context as "a customers' perception of uncertainty and the possible negative consequence regarding the Fintech adoption. Perceived risk is the subjective expectation of a loss (Chang and Chen 2014). Several Information System studies have pointed out the relationship between perceived risk and intention to use (Abramova and Böhme 2016; Matt et al. 2014). Therefore, we hypothesize that the greater the risk, the less will be the intention to adopt Fintech.

H2: Perceived risk is negatively related to intention to adopt

Perceived risk has been described as a derived construct in several IS literature (Gefen and Pavlou 2012; Pavlou 2003). The determinants of the Perceived risk especially in the technology adoption domain have been the financial risk, security risk, legal risk, and operational risk (Abramova and Böhme 2016).

2.3.2 Financial Risk

Financial risk refers to the loss of irreversibility of transaction, possible cancellation of confirmed transaction. Financial risk has been reported as the most common predictor when it comes to financing and financial services (Abramova and Böhme 2016; Benlian and Hess 2011). The financial loss in the digital transaction can be caused due to various reasons such as server downtime, increased traffic, financial fraud, etc. Hence, we hypothesize that financial risk has a positive impact on perceived risk.

H3: Financial risk is positively related to perceived risk

2.3.3 Legal Risk

Legal risk arises from the uncertainty of rules and regulations (Ryu 2018b). For instance, if there is a procedural error or regulatory lapses in taking the loan, whom the borrower will sue and where to sue. Furthermore, many times the company is a foreign entity or the server is located elsewhere, where will

be cases against the company be filed. The lack of clarity and legislation on such issues gives rise to distrust and anxiety among the user of Fintech. Therefore, we hypothesize that legal risk has a positive impact on perceived risk.

H4: Legal risk is positively related to perceived risk

2.3.4 Security Risk

Security risk is related to possible security flaws or potential vulnerabilities in the system protocol which governs all the transactions. However, it is not only limited to that identity theft and data theft fall under the gamut of security risk. Such types of frauds can compromise the system, leaking lenders' and borrowers' financial data such as credit card detail, security pins, etc. These types of risks are a grave concern among digital natives and constantly threaten the trust aspect of any transaction. To this, we hypothesize that security risks have a positive impact on perceived risk.

H5: Security risk is positively related to perceived risk

2.3.5 Operational Risk

Operational risk arises when there are lapses in internal processes, employees, and the system itself. When there is an operational failure and there is no adequate mechanism to address it, it leads to service failure. Service failures can dissatisfaction and distrust in the MSME owners. This prompts us to hypothesize that operational risk is positively related to perceived risk.

H6: Operational risk is positively related to perceived risk.

Figure 1 shows the conceptual framework with all the hypotheses.

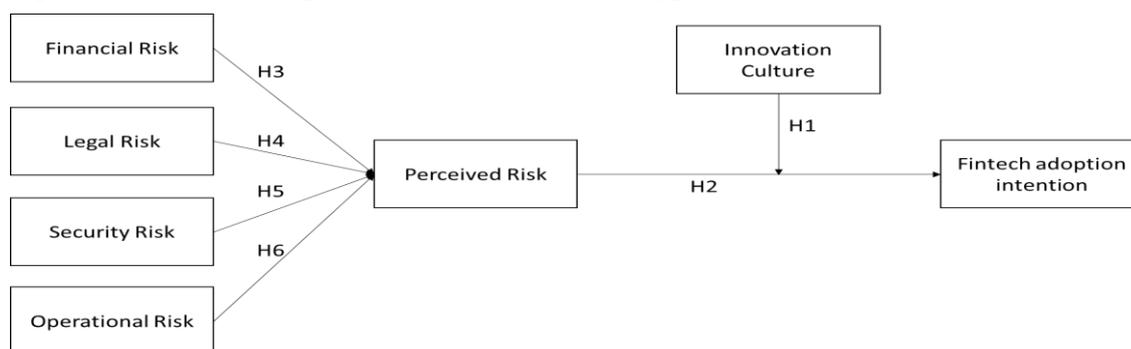


Figure 1: Conceptual Framework

3 RESEARCH METHODOLOGY

To analyze the data and test our hypothesis, we shall be the Partial Least Square (PLS) Structural Equation Modelling technique. An online survey will be conducted. The participant will be MSME owners or someone who can act as a representative for the entity. The list of MSMEs can be obtained from the chamber of commerce of any state. Since India is primarily a non-English speaking nation, the survey will be conducted in both English and Hindi. Care will be taken when translating questions from English to Hindi. Attention filters, trap questions, and reverse wording will be incorporated to ensure that participants are reading and paying attention to the questions. Incomplete responses will be erased before the final data analysis. Apart from basic demographic questions, the responses on the main variable will be taken on 5 point agree-disagree scale. Table 1 shows the constructs and items that will be used to measure the constructs.

4 EXPECTED OUTCOMES AND CONCLUSION

This study will be the first in our limited knowledge to look into barriers of Fintech adoption in MSMEs. This study is crucial from multiple aspects. To realize the full potential of MSMEs they need to be included in the formal financial setup of the economy. Fintech-based offerings can work as an agent of financial inclusion with innovative solutions such as digital bookkeeping, wealth management, and P2P lending. The expected outcome of our study will be the identification of the main reason for distrust towards Fintech and then working towards it. It will also answer, how the lack of innovation culture in an organization hampers the adoption of Fintech. For Fintech firms our study will help in identifying the major obstacle in their course of penetration. For policymakers and the Government, our study will

try to draw their attention towards the leading cause of lagging pace for Fintech adoption among MSMEs. Furthermore, we expect that by inculcating innovation culture among the owners, the anxiety towards Fintech adoption can be brought under control.

To propel growth in the economy, the collaboration of Fintech and MSMEs is crucial. MSMEs are the second largest employer of the country and their growth is linked to that of the country. A country whose MSME sector is suffering can never dream of sustained growth.

Constructs	Items	Reference
Innovation Culture (IC)	IC1- My company does not encourage creativity, innovation, and/or the development of new ideas, as cultural values.	Martín-de Castro et al. (2013)
	IC2- My company does not encourage experimentation and innovation to improve work processes.	
Perceived Risk (PR)	PR1-Using Fintech is associated with a high level of risk.	Ryu (2018b)
	PR2- There is a high level of uncertainty using Fintech.	
	PR3- Overall, I think that there is little benefit to use Fintech compared to traditional financial services.	
Financial Risk (FR)	FR1- Financial losses are likely when I use Fintech	Ryu (2018b)
	FR2- Financial fraud or payment frauds are likely when I use Fintech	
	FR3- Financial losses due to the lack of interoperability with other services are likely when I use Fintech	
Legal Risk (LR)	LR1- My use of Fintech is uncertain due to many regulations	Ryu (2018b)
	LR2- It is not easy to use Fintech due to the government regulations	
	LR3- There is a legal uncertainty for Fintech users	
	LR4- It is difficult to use various Fintech applications due to government regulation.	
Security Risk (SR)	SR1- I worry about the abuse of my financial information when I use Fintech	Ryu (2018b)
	SR2- My financial information is not secure when I use Fintech	
	SR3- I worry that someone can access my financial information when I use Fintech.	
Operational Risk (OR)	OR1- Fintech companies are not willing to solve the issues when financial losses or financial information leakages occur	Ryu (2018b)
	OR2- The organizational responses of Fintech companies are too slow when financial losses or financial information leakages occur.	
	OR3- I worry about the way Fintech companies respond to financial losses or financial information leakages.	
Adoption Intention (AI)	AI1- I would negatively consider Fintech in my choice set	Ryu (2018b)
	AI2- I would not prefer Fintech	
	AI3- I do not intend to use Fintech solutions	
	AI4- I will not use Fintech in Future	

Table 1: Constructs and their measurement

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