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# Financial digital divide and Indian street vendors: An ethnographic study

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**Abstract.** Our study investigates the causal connection of the financial digital divide among Indian street vendors. With ever-increasing digital payments, integrating this social segment is a big challenge, and its impact may bolster the Indian economy many-fold. Knowing the causal mechanism of such a digital divide may equip us to intervene. We conducted an ethnographic study in a small city with less than 50,000 population, among the street vendors who are mainly at the base of the pyramid and others surrounding him in his shared economy. We found that the leading cause of digital payment hesitancy is primarily two-dimensional. One depends on the vendor's internal factor and is mainly his distrust in the digital payment system, which generates due to their limited knowledge and skill. The second rests on the factors contributed by the environment of his shared economic setting.

**Keywords:** Digital Payment Systems (DPS), street vendors, digital financial inclusion, digital economy

## INTRODUCTION

For the present size of the Indian economy of US\$3.54 trillion (The New Indian Express, 2022), the proportion of digital payments is US\$133.40 billion and is expected to grow by 13.66% (statista, 2022). The digital payment system is an evolving phenomenon. Presently, for BoP, we find limited relevant literature. The study becomes more appropriate as a significant proportion of the Indian population belongs to BoP. In the Indian context, BoP plays a critical role in building society and contributing to human capital, well-being, and wealth. Therefore, exploring the financial digital divide in a BoP context is pertinent. Our effort has a promising potential contribution to the larger economy by assuring the identification of possible factors and causal connections of the financial digital divide. It may further ensure the training need of the future workforce of business organizations so that a digital divide is minimized. To address such concerns about the financial digital divide, we would like to take up the following research question:

*Why do Indian street vendors hesitate to indulge in the digital payment system?*

### The subject, Existing ecosystem, and role of digital payment

The subject chosen for ethnographic study is one of the most common subjects for all Indians, *sabzi ke thele wala* (a street vendor involved in the sales of vegetables who runs his business on a four-wheeled manually driven vehicle and moves it from place to place to sell his goods). The principal role of the chosen subject is to deliver fresh vegetables to the customers' doorsteps on a day-to-day basis. It is an age-old practice of Indian society, especially in towns where the subject visits the local sabzi mandi (vegetable market) every morning and brings these vegetables to the customers'

doorsteps, earning a couple of hundred rupees (US\$3 to 4) in the process. Therefore, besides the Indian households, the wholesale dealers of vegetables are also in his economic ecosystem, influencing his financial decisions.

## **METHODOLOGY**

Information systems research methods are continuously evolving, and in the process of methodological evolution, the information systems field and the methodology are enriching (Baskerville & Myers, 2015). An ethnographic approach is needed to capture the realities based on experience (Lindgren et al., 2021). An ethnographic approach is well suited in a digital payment context to gain authentic insights. In the traditional model of ethnography, participant observation is one of the most critical data gathering techniques. The ethnographer is part of the contextual setting without changing the contextual situation (Baskerville & Myers, 2015). Reflexivity, which reflects the context's fundamental objectives, strategies, and processes, is sometimes not what the research context claims (Velayudhan & Thomas, 2018) are a critical part of the ethnographic approach (Ophir et al., 2020). Following social constructivism, ethnographers use their field notes to bring forth what they infer (Ophir et al., 2020). Following the good practices of ethnography, we prepared the field notes of all our interactions with the contextual stakeholders of our study. Subsequently, the authors code the contents of the field notes to conclude the related themes and their relation to the outcome variable of Digital Payment System (DPS) hesitancy.

### **Meeting with important stakeholders**

The wholesale vendors, street vendors, and household customers are the three critical stakeholders in the street vendor's immediate supply and demand value chain. We interacted with them and prepared the field notes based on their inputs and insights.

### **Interview with the wholesale vendor**

He was the landlord of one of the authors who regularly met him. When asked about the payment system, he was curious and unwilling to say much. He was also unwilling to get the house's rent deposited digitally and insisted on getting it in cash. When asked about the digital payments from the street vendors, he categorically said that most of them are illiterate and are not capable of paying it digitally.

### **Interaction with street vendors**

Our discussion with the street vendors was on many issues, starting general issues to earnings, and finally to get to know about the comfort level of digital mode of payment. The street vendor demonstrated his reluctance to the digital payment system in multiple interactions with the authors. However, the reasons behind his reluctance kept on changing. At times it was on the digital skill, sometimes about the disbelief on the digital system and his final words were about the non-acceptance of the digital payment from the wholesale vendors.

### **Interaction with customers**

Customers of the vegetable vendors are of many categories. Some of them are as illiterate as the street vendor himself. However, many of them are also comfortable with the digital payment system and are willing to do digital transactions. Some young customers noticed that the vendor did not have a digital payment system even tried to help them after knowing they had bank accounts. Son of one of the father-son couple of street vendors got ready for it, and a customer installed the digital payment app to his mobile. And for sometimes, he kept on paying in the digital form.

## ANALYSIS AND RESULTS

Based on the analysis of the field notes, we shortlisted the identified themes under two buckets related to the subject's internal and environmental factors. Factor analysis of the ethnographic data resulted in two models. The first model has dominant factors due to which street vendors are reluctant to the DPS. The second model is regarding the ecosystem in which there are factors against street vendors adopting the DPS. We term these two models as the pull factor model and push factor model and are as follows:

### Pull Factor Model

The pull factor model consists of the internal factors of the subject. This model primarily consists of 3 constructs, hesitancy to DPS, poor DPS knowledge & skills, and trust issues. The arguments followed by the thematic data analysis suggest that the poor knowledge & skills supported by the trust deficit led to the subject's hesitancy to DPS. The pull factor model is presented in figure 1.

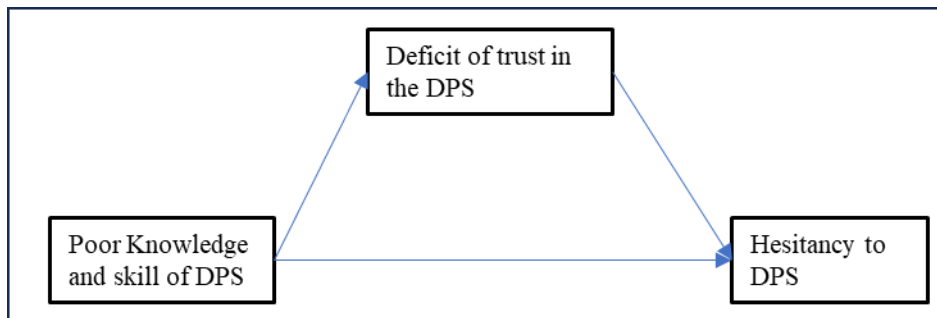


Figure 1 – Pull Factor Model explains internal factors/mechanism of DPS hesitancy.

### Push Factor Model

The push factor model is the environmental factor model, and the leading actor of the model is the wholesale vendors to whom street vendors conduct business. This model also consists of 3 constructs, hesitancy to DPS, issues with tax, and willingness to do business in cash due to superstitions associated. Even though some wholesale vendors are comfortable with digital payments, they, too, refrain from doing it for the bohani (first payment of the day) in digital form. The arguments followed by the thematic data analysis suggest that tax-related issues supported by a desire to do business in cash led to the subject's hesitancy to DPS. The push factor model is presented in figure 2. This is applicable to the wholesale vendors to whom street vendors conduct business.

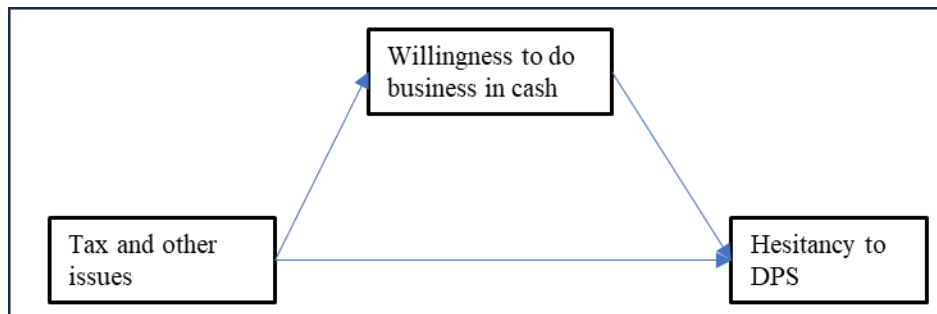


Figure 2 – Push Factor Model explain external factors/mechanism of DPS hesitancy.

## DISCUSSION

In this paper, we tried to investigate the factors that culminate into hesitancy to digital payment systems by the Indian street vendors (vegetable). We adopted a qualitative approach to understanding these factors after a series of conversations, discussions, and interviews with the key stakeholders of the Indian street vendors (vegetable) ecosystem. We administered the field data analysis tools. Further analysis revealed that the contributing factors could be grouped broadly into two categories, one belonging to the internal factors of the street vendor and the other to their ecosystem. To address DPS hesitancy among vendors, we must work simultaneously on two fronts. One is minimizing the internal resisting factors among them; among them, the prominent is their ignorance due to their limited knowledge in this particular domain. Probably training can bridge by same. Another about ecosystem could also be because of the whole nature of vegetable business lying on the cash payment system and needs a transformation in favor of the digital payment. It is worth mentioning that, out of the three critical stakeholders of the value chain, the customers, vendors, and wholesale vendors, only the customers are ready to change. The rest have multiple forces to keep the existing cash payment system.

Further, the whole value chain of the business is keen to maintain the status quo in its present form. The business ecosystem does not favour digitization and promotes street vendors to use DPS to maintain the legacy system because of various tax and other related issues. Since any change in the existing system is not convincing to more prominent stakeholders, even the individual vendor's efforts to become part of the DPS system are likely to go in vain. Suppose we may address the issue at the ecosystem level. In that case, it becomes easy to govern the rest of the factors, and the objective of digital inclusion may achieve the desired results quickly. Thus, both factors belonging to the push and pull can play a critical role. The factors belonging to the stakeholders only work as supplementary and applicable only to supplement the ecosystem.

## CONCLUSION

We investigate the factors of DPS hesitancy among Indian street vendors. Our findings confirm that trust generated by a lack of relevant knowledge and skill is critical to DPS hesitancy. The rest of the stakeholders contribute to it, mainly wholesale vendors and customers. We present a novel perspective of DPS hesitancy that relates to the push and pull factors of the business ecosystem. DPS literacy among the relevant population is a way forward. Their training and bringing the business under the tax umbrella may obtain the necessary change in the financial digital divide. Our research is limited to street vendors; hence our conclusion cannot be generalized to the larger population. We consider this a limitation of our study, which future researchers may delve into.

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