Awareness on Multiple Online Transaction Methods of Small Scale Industries in Bangalore

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Abstract

This study investigates the awareness and utilization of various online transaction methods among small-scale industries in Bangalore. Results show widespread adoption of online transactions, with all respondents using such methods. A significant proportion demonstrated awareness of multiple transaction options likely NEFT, RTGS, UPI, IMPS majority conducting of transactions online. While some methods like UPI and banking cards enjoy high awareness, others like NACH and AePS require targeted promotion. Overall, the findings suggest a positive trend in the adoption of online transaction methods among small-scale industries in Bangalore, highlighting areas for further education and promotion efforts.
Keywords: Online Transaction Methods, Small Scale Industries, Awareness, Bangalore, India.

Introduction

The advent of technology and the widespread use of the internet have revolutionized the way businesses operate, particularly in the realm of financial transactions (Mohsin et al.). With the rise of e-commerce, small scale industries in Bangalore have also embraced online transactions as a means to boost their sales and expand their customer base. However, despite the potential benefits of online transactions, there is still a need to understand the level of awareness and preference for multiple online transaction methods among these small scale industries in Bangalore. The nation has experienced a rise in internet usage, with a growing number of individuals and businesses transitioning to online platforms. Shifting towards online transactions has opened up new opportunities for small scale industries in Bangalore to reach a wider audience and compete in the digital market. Banking cards (credit, debit, prepaid, travel) offer diverse transactions. Aadhaar Enabled Payment System (AEPS) ensures online financial transactions with interoperability among 149 banks. Unified Payments Interface (UPI) streamlines real-time inter-bank and merchant payments. National Automated Clearing House (NACH) centralizes electronic transactions for 118 banks. Internet banking enables flexible fund transfers via NEFT and RTGS. Unstructured Supplementary Supplementary Service Data (USSD) *99# enhances mobile banking, while mobile wallets provide digital alternatives. However, the gain of online transactions for businesses depends on the awareness for different online transaction methods or modes. Addition to it, understanding the factors that influence their choice of online transaction methods is crucial in developing strategies to improve

their adoption and usage. Furthermore, examining the awareness of small scale industries in Bangalore is particularly important because the business needs. Limited resources, lack of technical expertise, and limited access to advanced technology may hinder their ability to fully embrace online transactions. The findings from this study will provide valuable insights into the challenges and opportunities faced by small scale industries in Bangalore when it comes to adopting online transaction methods. The shift towards online transactions has been particularly pronounced in the wake of the global pandemic, which has accelerated the digital transformation of businesses across the globe. Small scale industries in Bangalore have encountered both challenges and opportunities in navigating this transition. This research aims to capture the current state of awareness to inform the design of targeted interventions and support.

Different Types Online Transaction Methods
Internet Banking

Internet banking, or online banking, is a digital payment system allowing customers to perform various financial transactions through a bank's website. It includes National Electronic Fund Transfer (NEFT) and Real Time Gross Settlement (RTGS) systems, offering flexibility and accessibility for different fund transfer amounts. Internet banking enables customers to conduct diverse financial transactions through a bank's website, encompassing NEFT and RTGS for flexible fund transfers. IMPS, provided by NPCI, ensures real-time, 24x7, multi-platform money transfers, supporting P2P, P2M, online shopping, and utility bill payments, with a Rs. 5 lakh maximum limit.

Banking Cards

Banking cards, including credit, debit, prepaid, and travel cards, provide secure and convenient transactions. Utilizing 2-factor authentication through PIN and OTP, cards from systems like RuPay, Visa, and MasterCard enable in-store, online, and telephonic purchases. Transaction modes include self-service or assisted, with costs varying, and services span PoS, ATMs, Micro-ATMs, online transactions, and global use for multiple currencies,

offering interoperability among 751 banks. Transaction cost various from bank to bank.

Unified Payments Interface (UPI)

The Unified Payments Interface (UPI) introduced in India in 2016 streamlines and standardizes payment systems, facilitating real-time inter-bank transactions and merchant payments through a single mobile application. With over a billion transactions monthly, UPI has become a preferred payment solution, supporting various financial and non-financial transactions. It involves NPCI, banks, merchants, corporates, and customers, providing round-the-clock availability and a secure, innovative payment experience.

Immediate Payment Service (IMPS)

Immediate Payment Service revolutionized Indian banking by enabling real-time, 24/7 fund transfers across banks via multiple channels like mobile, internet, ATM, and SMS. Launched in 2010, it ensures secure and instant transactions, benefiting both senders and receivers. Users register with their banks, obtain unique IDs, and can transfer funds using mobile numbers, MMIDs, or account numbers/ IFS codes. Awareness campaigns emphasize security measures to prevent fraud.

National Automated Clearing House (NACH)

The National Automated Clearing House (NACH) introduced in 2016 by NPCI serves as a centralized platform, unifying and standardizing interoperability for electronic transactions. NACH facilitates bulk interbank debit/credit transactions, distribution transactions, and collection transactions for over 118 banks, reducing costs, improving efficiency, and enhancing customer experience.

Unstructured Supplementary Service Data (USSD)

Unstructured Supplementary Service Data (USSD) service *99# revolutionizes mobile banking for basic feature phones. Available in 12 languages, it offers interbank fund transfers, balance inquiries, mini statements, and more. Accessible through a common number, *99# is provided by 51 leading banks and GSM service providers. With a daily fund

transfer limit of Rs 5,000, *99# enhances banking accessibility for under banked communities.

Aadhaar Enabled Payment System (AEPS)

The Aadhaar Enabled Payment System (AEPS) is a bank-led model facilitating online interoperable financial transactions. Users need to provide KYC information and link their Aadhaar number with their bank account for AEPS activation. With no transaction cost for customers, services include balance inquiry, cash withdrawal, deposit, Aadhaar-to-Aadhaar funds transfer, and payment transactions. The maximum transaction amount is set at Rs. 10,000. AEPS is offered by 149 banks, ensuring interoperability for a wide range of financial transactions.

Mobile Wallets

Mobile wallets, digital alternatives to cash, allow users to link card details to a mobile app for digital transactions. Providers like Paytm, Gpay, Phonepe, Freecharge, and Airtel Money offer various types of wallets. With 40 operators, mobile wallets lack interoperability and do not support cash-out.

Online Payment Mode for Transferring Funds

Parameters	NEFT	UPI	RTGS	IMPS	AePS
Expanded Form	National Electronic Funds Transfer	Unified Payments Interface	Real-Time Gross Settlement	Immediate Mobile Payment Services	Aadhaar-enabled Payment System
Minimum Transfer Value	Rs. 1	Rs. 1	Rs. 2 lakh	Rs. 1	Rs.100
Payment Option	Online and Offline	Online	Online and Offline	Online	Online
Maximum Transfer Value	No limit	Rs. 2 lakh	No limit	Rs. 2 lakhs	Rs. 10,000 per transaction. Daily limit of a maximum of Rs 50,000 on total transactions
Transfer Time	Up to 30 minutes	Immediate	Immediate	Immediate	Immediate
Service Time	Available 24×7	Available 24×7	Available 24×7	Available 24×7	The cutover of AEPS transactions happens to 23:00 hours each day.
Transaction Charges	Maximum of Rs. 2.50 (+ GST) for transfers up to Rs. 10,000. Maximum of Rs. 5 (+ GST) for transfers above Rs. 10,000 and less than Rs. 1 Lakh. Maximum of Rs. 15 (+ GST) for transfers above Rs. 1 Lakh and less than Rs. 2 Lakh. Maximum of Rs. 25 (+ GST) for transfers above Rs. 2 Lakh.	No charges	In the case of online transfers, no charges are levied for RTGS transactions. In case the RTGS transaction is completed at a bank branch, a charge of Rs.15 plus GST is levied.	As per member banks and PPIS	Minimum charges are ₹5 and the maximum could go upto₹15.
Details Required	Account No. And IFSC Code	VPA of beneficiary/QR code/Account No. And IFSC	Account No. And IFSC Code	Account No. And IFSC Code	Aadhar no and POS machine
Beneficiary Registration	Yes	No	Yes	Yes	No

Objectives

- To study the online transaction Methods and Modes available in India.
- To evaluate level of awareness among small-scale industries on multiple online transactions available in India.

Literature Review

(Lokesh et al.) This paper, we will evaluate Effect of Electronic Payment Systems on Small Business. In Bengaluru there has been a rapidly increasing adoption of electronic payment by large enterprises but not by small and medium enterprises. The purpose of this study was to investigate on the factors that influence adoption electronic payment among the small business in Bengaluru. A Survey design was conducted to each bussiness of the 300 small businesses using an open ended questionnaire. It is found that the Ease of use, Security, Saves time from the long queue, Convenience, Awareness and Flexibility has significant impact on the Electronic Payment Systems. On the basis of the findings it was concluded that entrepreneur background characteristic sand ease of use of electronic gadgets are the main factors that influence adoption of electron payments.

(Shah and Bhatt) This paper Research objective for the study is to measure User opinion towards Digital Payment in Rural Gujarat. Study is based on primary research. Attributes of digital payment with respect to user opinion are closely examined through this research and it has been found that higher education level leads to more positive perception of users towards digital payment modes. Through literature review concluded that 4 factors will be counted for overall opinion of users towards digital payment. This study is different from the past research in such a way that this study has taken holistic approach in measurement of User opinion towards Digital Payment in Rural Gujarat and it finds the effect of Ease of use, Perceived security, Perceived Benefits, Reliability on the User Opinion. It was found that ease of use contributes the most in rural Gujarat's digital payment user opinion for digital payment followed by perceived benefits, security and reliability. The study provides a basic framework for understanding digital payment users' opinion.

(da Silva Torres) This dissertation aims to assess consumer awareness and acceptance of payment methods amid digital transformation in the Banking Sector. Rising market challenges and competition prompt the demand for innovative tools. Banks facilitate access to accounts and cash, aligning with the evolving internet-based economy, cross-

border transactions, and increased demand for direct supply-demand connectivity. Payment methods are pivotal in this study, reflecting consumer preferences for cost-effective and technologically advanced solutions.

(Amornkitvikai et al.) This study employs the Tobit regression model to analyze factors impacting the e-commerce sustainability of Thai MSMEs. Due to the non-normality of e-commerce intensity values, the Tobit model is suitable for handling excess zeros and values bounded between 0 and 100. Additionally, the One-Sample Wilcoxon Signed Rank Test is used to assess perceived barrier items' significance, revealing that organizational barriers significantly impede e-commerce sustainability. Thai MSMEs perceive their products or services as unsuitable for e-commerce, face constraints in financial and human resources for e-commerce investment, and have limited knowledge of e-commerce adoption. CEOs express concerns about managing disruptive e-commerce technologies, reflecting ongoing challenges in navigating e-commerce markets.

(Najib and Fahma) This research developed a theoretical model based on the extended TAM model to determine the intention of SMEs to adopt the system of digital payment. This study contributes to develop a model for digital payment adoption in the Indonesian SMEs context especially SMEs restaurant, in which such studies are still rare and digital technology in the SMEs context was not only motivated by technology itself, such as ease to use and usefulness of the technology but also motivated by competitors' and customers' pressure. Therefore, it will be better to include the variable of competitor and customer pressures in future research to have a more comprehensive explanation about digital adoption in Indonesian SMEs. The role of government is essential in encouraging SMEs to adopt new technology.

(Malik et al.) The paper bargains the customers' recognition towards digital payment identified with customers' mindfulness towards digital payment with unique reference to the area of South Delhi. This research paper begins with the prospect of expanding the pattern of digital payment to the general public. The investigation found that 58% of the aggregate respondents need to utilise computerised installment

choice in future too. Added to that, it turned out that 47% of the aggregate respondents said that they have a dread of spillage of certifications while utilising diverse installment modes. The research report depends on essential information. Hence, it is inferred that the vast majority of bank clients know about the benefits of saving money benefits in the zone of PulPehladpur, South Delhi.

Research Methodology

This paper attempts to understand Awareness on Multiple Online transaction Methods in small scale industries Bangalore with the help of primary data. For the said purpose a survey has been conducted among 72 respondents which includes both owners of small scale industries and employees in finance department of various small scale industries throughout Bangalore. The surveys were done by circulating structural questionnaire personally and 'Google form' was sent to respondents through WhatsApp and e-mail. All the respondents provided complete information regarding the survey.

Data Analysis and Interpretation
Table 1 Demographic Details of Respondent

Particulars		Frequency (N)	(%)
Gender	Male	65	90.28
	Female	7	9.72
	Total	72	100.00
Age	< 25 years	12	16.67
	26-35 years	24	33.33
	36 – 45 Years	13	18.06
	46 and above	23	31.94
	Total	72	100.00
Education	Schooling or PUC	9	12.50
	Graduate	37	51.39
	Post Graduate	26	36.11
	Total	72	100.00
Nature of Business	Manufacturing Indus-tries	42	58.33
	Ancillary Industries	4	5.56
	Service Industries	21	29.17
	Others	5	6.94
	Total	72	100.00

The data reveals a predominantly male (90.28%) respondent base. Regarding age, the distribution is relatively balanced, with the majority falling between 26 to 45 years (67.39%). In terms of education, graduates constitute the largest group (51.39%), followed closely by post-graduates (36.11%). When considering the nature of business, manufacturing industries are most common (58.33%), indicating a significant presence in the sample. This data suggests that the majority of respondents are well-educated males engaged in manufacturing industries, reflecting potential patterns in workforce composition and educational attainment within this sector.

Table 2 Awareness on Multiple Online Transaction Methods among the Small Scale Industries

Particulars	Frequency (N)	(%)
Usage of Online transaction Methods in business		
Yes	72	100
No	0	0
Sometimes	0	0
Total	72	100.00
Awareness of Multiple Online Transaction Methods used for Fund Transfer		
Yes	51	70.83
No	5	6.94
Somewhat aware	16	22.22
Total	72	100.0
Percentage of total transactions are conducted online		
< 25%	6	8.33
26% to 50%	17	23.61
51% to 75%	40	55.56
>76%	9	12.50
Total	72	100.00
Level of Awareness on NEFT		
Fully aware	21	29.17
Aware	43	59.72
Somewhat aware	6	8.33
Not aware	2	2.78
Total	72	100.00
Level of Awareness on RTGS		
Fully aware	20	27.78
Aware	41	56.94
Somewhat aware	8	11.11
Not aware	3	4.17
Total	72	100.00
Level of Awareness on IMPS (Immediate Payment Service)		
Fully aware	29	40.28
Aware	37	51.39
Somewhat aware	5	6.94
Not aware	1	1.39
Total	72	100.00
Level of Awareness on UPI (Unified Payments Interface)		
Fully aware	39	54.17
Aware	30	41.67
Somewhat aware	3	4.17
Not aware	0	0.00
Total	72	100.00
Level of Awareness on banking cards		
Fully aware	31	43.06
Aware	35	48.61
Somewhat aware	6	8.33
Not aware	0	0.00
Total	72	100.00
Level of Awareness on NACH (National Automated Clearing House)		
Fully aware	5	6.94
Aware	9	12.50
Somewhat aware	14	19.44
Not aware	44	61.11
Total	72	100.00
Level of Awareness on USSD (Unstructured Supplementary Service Data)		
Fully aware	9	12.50
Aware	19	26.39
Somewhat aware	12	16.67
Not aware	32	44.44
Total	72	100.00
Level of Awareness on AePS (Aadhaar Enabled Payment System)		
Fully aware	7	9.72
Aware	18	25.00
Somewhat aware	9	12.50
Not aware	38	52.78
Total	72	100.00

Level of Awareness on Mobile Wallets		
Fully aware	12	16.67
Aware	26	36.11
Somewhat aware	11	15.28
Not aware	23	31.94
Total	72	100.00

From above table 2 presents a comprehensive overview of small-scale industries' awareness and utilization of various online transaction methods. Notably, 100% of respondents reported using online transaction methods in their businesses, indicating a widespread adoption within this sector. Moreover, a significant proportion (70.83%) claimed awareness of multiple online transaction methods for fund transfers, showcasing a decent understanding of available options.

In terms of transaction volume, a majority (55.56%) reported conducting 51% to 75% of their transactions online, highlighting a substantial reliance on digital platforms for business dealings. Additionally, awareness levels varied across specific transaction methods. While NEFT, RTGS, and IMPS enjoyed relatively high levels of awareness, with 88.89%, 84.72%, and 91.67% of respondents being either fully aware or aware, other methods like AePS and NACH had lower levels of awareness, indicating potential areas for education and promotion.

Interestingly, Unified Payments Interface (UPI) and banking cards exhibited high levels of awareness, with 95.83% and 91.67% of respondents being fully aware or aware, underscoring their prominence in the digital payment landscape. However, methods like USSD and Mobile Wallets displayed more moderate awareness levels, suggesting the need for further promotion or education initiatives. Overall, the data suggests a positive trend towards the adoption of online transaction methods among small-scale industries, although targeted efforts may be required to enhance awareness and utilization of specific platforms like NACH and AePS.

Conclusion

The study focused on the awareness and utilization of various online transaction methods among small-scale industries in Bangalore. The findings reveal a widespread adoption of online transaction methods, with all respondents indicating usage in their businesses. a substantial proportion demonstrated awareness of multiple online transaction methods for fund transfers, highlighting the sector's understanding of available options. While the majority of transactions fall within the 51% to 75% range conducted online, specific methods like NEFT, RTGS, and IMPS enjoy high levels of awareness. However, there are difference in awareness levels across different platforms, suggesting the need for targeted education and promotion efforts, particularly for methods like NACH and AePS. Still, Unified Payments Interface (UPI) and banking cards emerge as widely recognized and utilized options. Altogether, the data underlines the positive trend towards the adoption of online transaction methods among small-scale industries in Bangalore, while also pointing towards areas where focused strategies may enhance awareness and utilization, thereby facilitating further combination into the digital economy.

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